

Connecting People with Jobs

AI and Digitalisation for Employment Support in Belgium and Greece

New Tools to Support Minimum Income Beneficiaries



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NEW TOOLS TO SUPPORT MINIMUM INCOME
BENEFICIARIES

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Foreword

Providing jobseekers furthest from the labour market with better opportunities to access employment is a key policy objective across OECD countries. Supporting these individuals generates benefits that go far beyond the individual: it improves well-being and fosters empowerment, while also supporting economic growth, promoting social cohesion and reducing public expenditure in the long run. Yet many of those furthest from the labour market face complex and multiple barriers to employment that can only be overcome through co-ordinated, intensive and personalised support. In many countries, providing this level of support remains challenging, particularly where resources are limited.

Active labour market policies (ALMPs) and public employment services (PES) play a key role in helping countries address skills and labour shortages while promoting inclusive labour markets and supporting jobseekers furthest from the labour market access good jobs. At the same time, megatrends such as digitalisation and artificial intelligence (AI), population ageing, globalisation, and the green transition are fundamentally reshaping the role of ALMPs and PES. To address these challenges, countries across the OECD are implementing or considering reforms of their systems of ALMPs and PES, including by expanding the number and variety of digital tools and AI applications used. These innovations can help target and allocate resources more efficiently, tailor support, and achieve better outcomes with fewer resources. However, if these tools are to improve opportunities for all, OECD countries must ensure that people furthest from the labour market can also reap the benefits of digitalisation.

The OECD is carrying out a set of reviews of labour market and social protection policies to encourage greater labour market participation and promote better employment opportunities, with a special focus on the most disadvantaged who face the greatest barriers to finding quality jobs. This includes a series of country studies, *Connecting People with Jobs*, which provide an assessment of how well each country's ALMPs and PES help all groups to move into productive and rewarding jobs, and policy recommendations for improving their effectiveness. This report on Belgium and Greece is the twenty-third in that series.

Belgium and Greece are aiming to improve job matching and career progression of disadvantaged groups, as labour market disparities persist despite improved labour market indicators and significant policy efforts. This report assesses the current situation in the two countries, focussing on the employment outcomes and career pathways of Minimum Income Scheme (MIS) beneficiaries. Building on the analysis of linked administrative data and good practices from other EU and OECD PES, the report proposes concepts for digital tools enhanced by AI to support job matching and career progression of MIS beneficiaries. It also provides recommendations on data that can be used to amplify the advantages of such tools.

The report is prepared as part of the technical support project “Strengthening social protection capacity and enhancing the labour market integration of minimum income scheme (MIS) beneficiaries through the application of artificial intelligence (AI) for improved job matching”. The project was funded by the European Union via the Technical Support Instrument, and implemented by the OECD, in co-operation with the European Commission.

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This report is produced within the framework of the project “Strengthening social protection capacity and enhancing the labour market integration of minimum income scheme (MIS) beneficiaries through the application of artificial intelligence (AI) for improved job matching” (www.oecd.org/en/about/programmes/sg-reform/using-AI-to-improve-job-matching-tools-for-minimum-income-scheme-beneficiaries.html; September 2024–October 2026). The project was funded by the European Union via the Technical Support Instrument, and implemented by the OECD, in co-operation with the Reform and Investment Task Force of the European Commission (SG REFORM). The project aims to support Belgium and Greece to develop digital solutions enriched by AI aiming to enhance the matching of MIS beneficiaries with labour demand.

This report and the project as a whole have profited from excellent collaboration and fruitful discussions with the counterparts in Belgium and Greece including staff from the Federal Public Service Social Security and the Federal Public Planning Service for Social Integration, Anti-Poverty Policy, Social Economy and Federal Urban Policy in Belgium and the Ministry of Social Cohesion and Family and the Ministry of Labour and Social Security in Greece. The report and the project implementation would not have been possible without the continuous support, collaboration and constructive comments of Marine Borchardt and Hana Lucic from the European Commission's SG REFORM.

This report has greatly benefitted from exchanges with numerous stakeholders in Belgium and Greece throughout the project implementation and, in particular, the discussions held during the fact-finding missions in November 2024 (in Greece) and January 2025 (in Belgium) as well as during workshops and capacity-building events. Contributions of international experts during the two international workshops – the first one held in May 2025 on identifying employment obstacles and opportunities for vulnerable groups and the second one in November 2025 on digital and AI-powered job matching and career recommendation tools – as well as from a study visit to the Swedish PES in February 2026, are greatly acknowledged.

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Executive summary

This report shows that, despite well-established support systems in place, many Minimum Income Scheme (MIS) beneficiaries in Belgium and Greece continue to face substantial barriers to finding stable employment and progressing in their careers. Investing in AI-enhanced job and career recommendation tools that consider the needs of MIS beneficiaries could help connect them to better jobs and careers.

Both Belgium and Greece have made important digitalisation investments in recent years, including by embracing AI. However, existing tools are often designed for broader populations and provide basic job matching functionalities, limiting their ability to address the specific characteristics, needs, and barriers faced by those with weaker labour market prospects. At the same time, international experience demonstrates the growing potential of digital and AI-powered tools to support more effective and personalised labour market services. Such tools can improve matching between jobseekers and vacancies, support career guidance, strengthen service co-ordination, and help identify opportunities for training and other active labour market policies (ALMPs).

This report proposes concepts for the development of comprehensive AI-enhanced solutions to support the job matching and career progression of MIS beneficiaries in Belgium and Greece. The proposed solutions are intended to guide and complement existing employment and social support services. They can be used by job counsellors, social workers, and beneficiaries themselves to support job search, identify support needs, guide career development and recommend ALMPs. By facilitating more effective job matching and more informed career decisions, these tools have the potential not only to shorten unemployment spells but also to promote more sustainable and higher quality employment and, therefore, strengthen social inclusion.

The proposed concepts for new digital solutions presented in this report draw on the analysis of rich linked administrative data. In Belgium, the analysis relied on tailored aggregate data provided through the Crossroads Bank for Social Security. In Greece, multiple administrative datasets were linked at the individual level, providing a unique evidence base on the employment trajectories of MIS beneficiaries. While some elements of the proposed concepts are relevant and applicable across both countries, strategic options regarding the design and implementation of such solutions are tailored to each country's institutional framework, including Belgium's decentralised governance structure and distribution of responsibilities across levels of government.

The lessons from this report extend beyond these two countries. As governments across OECD countries increasingly explore and embrace the potential of digitalisation and AI in employment services, this report offers practical insights on designing and implementing comprehensive job and career recommendation platforms, while managing associated risks. The report also guides how to embed these tools within service delivery and operational processes to better support those further from the labour market in accessing good and sustainable jobs.

Four key takeaways emerge that are particularly relevant for the development of digital and AI-enhanced job and career recommendation tools in Belgium and Greece:

- **Strengthen data linkage, interoperability and quality to support integrated digital and AI-enabled employment services.** Both Belgium and Greece have a strong data foundation and hold rich information on MIS beneficiaries and vacancies. However, these data are often fragmented across institutions, collected for administrative rather than analytical purposes, or not coded consistently enough, thereby limiting their ability to support the full range of functionalities envisaged for advanced AI-enabled job-matching and career recommendation tools.
- **Design labour market tools to support career progression, not only job placements.** While many MIS beneficiaries succeed in entering employment, they mostly access unstable, low-paid, part-time, and lower-entry service occupations, with limited prospects for advancement. Digital tools can help address this challenge by identifying opportunities not only to enter employment, but also to progress towards better-quality and more sustainable jobs.
- **Enable job matching and career recommendation tools to fully consider individual circumstances and local labour market realities.** MIS beneficiaries differ considerably in their skills, employment histories, and barriers to work while labour demand also varies across sectors and regions. To provide meaningful support, digital tools should integrate information on individual profiles, vacancies, training opportunities, employment barriers, and regional labour market needs. This would allow both counsellors and beneficiaries themselves to identify realistic job options and explore pathways for upskilling, reskilling and career progression. This is even more prominent in the case of Belgium, where identifying opportunities beyond regional borders can be particularly challenging.
- **Introduce AI-powered tools as part of a broader support system and governance.** The effectiveness of these digital tools will be higher if accompanied by strong governance, co-ordination across institutions, staff training, user-centred design, and safeguards for risk management. Addressing data governance and responsibility, ensuring compliance with the EU AI Act, and managing disparities in data quality and digital maturity among institutions involved in delivering employment and social services are critical success factors. AI tools should support rather than replace human judgement and be deployed gradually, starting with core functionalities and expanding over time, based on user feedback and implementation experience. Continuous monitoring and evaluation are also key to finetune tool design, improve performance, and ensure that AI-powered solutions deliver meaningful benefits for users. At the same time, complementary policy actions are needed to maximise the impact of such tools, including stronger institutional co-ordination, continuous access to training, ALMPs, and social services, and the availability of quality employment opportunities, as technology alone cannot overcome all the labour market barriers faced by many MIS beneficiaries.

1 Assessment and recommendations

Minimum Income Scheme (MIS) beneficiaries in Belgium and Greece experiencing weaker labour market attachment, limited career progression opportunities, and multiple employment obstacles. Drawing on an assessment of current practices, international experience, and in-depth administrative data analysis, this report examines how digital solutions enhanced by Artificial Intelligence (AI) can help address these challenges by improving job matching, strengthening career guidance, and supporting more sustainable pathways into employment. This report proposes concepts for digital job matching and career recommendation tools for Belgium and Greece that provide effective and data-driven support to MIS beneficiaries, while ensuring that these tools are well integrated into the governance structures and institutional frameworks for employment and social support.

1.1. Belgium and Greece demonstrate strong foundations for digital job matching and career progression tools for MIS beneficiaries

1.1.1. Belgium and Greece have well-established systems to support low-income people and households

As many other EU and OECD countries, Belgium and Greece have established MIS to support people living in low-income households, with the objective of reducing poverty and social exclusion. In both countries, these schemes affect a sizeable share of their populations. In Belgium, the number of MIS beneficiaries more than doubled between 2003 and 2023, and around 1.6% of the population depended on the scheme at the start of 2024. In Greece, around 240 000 individuals in 172 000 households received the benefit at the end of 2024.

The MIS in Belgium is designed at the national level but responsibility for benefit administration and service delivery lies with the public centres for social welfare and varies across municipalities, reflecting differences in local capacity, resources, and practices. The scheme aims to ensure a minimum level of income for eligible low-income households through financial support, while also promoting social integration through social inclusion and employment support. Employment support is delivered by the regional public employment services (PES) – VDAB in Flanders, Actiris in the Brussels-Capital Region, Forem in Wallonia, and ADG in the German-speaking Community. Employable beneficiaries can also be placed in public works schemes by the local public centres for social welfare provide beneficiaries with temporary subsidised jobs (referred to as Article 60 and Article 61 measures). These schemes are intended to promote sustainable labour market inclusion, including through the accumulation of social security rights that allow beneficiaries to access PES support.

Greece operates a well-established MIS within a centrally governed framework, where the policy design and scheme architecture are set at the national level, while implementation is supported by a network of local Community Centres, which serve as primary access points for beneficiaries. Similarly to Belgium, the scheme is structured around three core pillars – income support, social inclusion services, and Active Labour Market Policies (ALMPs). ALMPs are delivered by the Greek Public Employment Service (DYPA) through its local Employment Promotion Centres. Support for employment integration by DYPA is standardised for all registered jobseekers, regardless of their MIS status. It includes a profiling phase, a meeting with a job counsellor, the development of an individual action plan, and referrals to appropriate services. Additional targeted support can be provided for jobseekers belonging to special social groups, including via a small number of dedicated offices.

1.1.2. Belgium and Greece operate digital and AI-enabled tools for employment support that are not tailored to the needs of MIS beneficiaries

Despite differences in their level of digital maturity, Belgium and Greece have both made notable progress in modernising their IT infrastructure, particularly since the COVID-19 pandemic.

Belgium has a highly advanced digital infrastructure for social protection and labour market systems. Regional PES have developed sophisticated AI-driven tools for profiling, skills identification, job matching, and career guidance. Advanced tools also help employers create and manage job vacancies. In addition, Belgium leverages AI for monitoring labour market trends and generating insights to support policy and decision making. However, a key challenge for supporting MIS beneficiaries lies in the fragmented institutional landscape. Local public centres for social welfare operate independently and rely on different systems and practices, while employment services are delivered by separate regional PES. As a result, while the existing digital infrastructure supports many employment and social protection functions effectively, it is less well equipped to support co-ordinated service delivery for MIS beneficiaries, particularly the ones who are not part of the social security system.

The MIS in Greece is underpinned by robust digital infrastructure, particularly through an online platform that enables automated eligibility checks, continuous monitoring, and fraud prevention. However, this system remains largely limited to administrative functions and has not yet been leveraged for identifying needs for support services or job matching. Greece also benefits from a range of PES digital tools for jobseekers including for registration, profiling, counselling as well as emerging job-matching applications. However, these solutions are not necessarily well connected with each other and are not designed or tailored to the specific needs of MIS beneficiaries. As a result, despite the presence of multiple digital solutions, there is currently no dedicated, integrated digital pathway to support the job matching and career progression of MIS recipients. At the same time, ongoing modernisation efforts further reinforce the momentum for introducing dedicated data-driven matching and career recommendation solutions, including for those with weaker labour market prospects.

1.1.3. Gaps in data coverage and interoperability may constrain their use in job and career recommendation tools

The performance of job matching and career recommendation tools critically depends on access to timely and quality data. Belgium and Greece possess rich administrative data on MIS beneficiaries, but much of this information is collected for specific administrative purposes rather than job search and career guidance, or data-driven decision making.

Belgium benefits from a mature and highly integrated data infrastructure, co-ordinated by the Crossroads Bank for Social Security (CBSS), which supports secure data sharing and helps ensure data quality and consistency. Administrative registers contain rich information on employment histories, skills, qualifications, demographics, and job preferences, providing a strong basis for digital job and career recommendation tools. Demographic and household data are particularly robust and could support efforts to identify and mitigate potential biases in automated systems. However, existing datasets provide only limited information on informal and transferable skills, work readiness, and other factors that may be particularly relevant for MIS beneficiaries and can limit the effectiveness of employment support. In addition, some variables are not systematically collected or consistently coded, limiting their use in automated processes. Labour market data provide detailed insights into formal employment trajectories, wages, and employer characteristics, but some datasets are only available with a time lag due to the existing reporting structures. On the demand side, vacancy data remain dispersed across multiple platforms rather than integrated into a single system.

In Greece, recent investments in digitalisation have improved the availability, quality and operational efficiency of administrative data. Administrative registers contain extensive information on the competencies, employment histories, and demographic characteristics of MIS beneficiaries, providing a strong basis for data-driven job and career recommendation tools. Nevertheless, inconsistencies in older records, together with limited information in the available administrative data on subsequent employment in public sector employment and self-employment, constrain the ability to fully track long-term employment trajectories. On the labour demand side, vacancy data are systematically collected by DYPA, although coverage remains limited because not all employers advertise vacancies through DYPA's platform. Furthermore, the coexistence of multiple systems across Community Centres, municipalities, and DYPA leads to partial interoperability and fragmented information flows, which may hinder more effective labour market integration of this target group. Although the National Interoperability Centre provides infrastructure for automated data exchange through web services, its use remains confined to specific operational processes.

1.2. Understanding MIS beneficiaries' labour market pathways helps designing effective tools that support their labour market integration

1.2.1. Entering paid employment takes time for MIS beneficiaries

Analysis of administrative data generate valuable insights into MIS beneficiaries' profiles, their registration patterns with the PES as well as their employment trajectories. The analytical approaches applied in the two countries were driven by the data availability in each of them. In Belgium, the analysis relied on tailored aggregate data provided by the CBSS. In Greece, it was possible for the first time to link microlevel data from the MIS register to employment, unemployment and ALMP data for research purposes.

In Belgium, more than half of new MIS entrants remain on the scheme one year after registration, underlining the persistence of benefit receipt. In terms of trajectories, only around 13% of MIS beneficiaries transition into regular employment within a year, compared with nearly 40% of unemployment benefit recipients, highlighting the greater barriers they face in accessing stable work. Labour market outcomes are systematically stronger in Flanders and among beneficiaries with higher qualifications, while young people, older recipients, migrants and beneficiaries in Brussels and Wallonia fare less well.

MIS beneficiaries who transition into employment in Belgium often enter lower-quality and lower-skilled jobs concentrated in the service economy, particularly in administrative and support services, trade, hospitality, health, education, and social care. Employment in goods-producing sectors and higher-skilled occupations remains limited, reflecting both labour market barriers and skill constraints. Compared to unemployment benefit recipients, MIS beneficiaries are more often concentrated in manual service occupations rather than white-collar roles. These patterns point to persistent inequalities not only in access to employment, but also in the quality and stability of available job opportunities.

In Greece, two in three MIS beneficiaries are already registered as unemployed prior to applying to the scheme and are more likely than other jobseekers to be classified by DYPA as facing additional labour market disadvantages. While around one-quarter of MIS beneficiaries are employed at some point during their MIS spell, their earnings are often insufficient to lift household income above the eligibility threshold, resulting in continued benefit receipt.

MIS beneficiaries transition into employment at substantially lower rates than other registered jobseekers. While around seven in ten jobseekers registered with DYPA find work within two years of registration, only three in ten MIS beneficiaries do so. There is also a mismatch between the occupations beneficiaries seek and the jobs they eventually secure, with many entering lower-skilled and lower-paid roles such as cleaning, helper, and personal service occupations. In terms of employment conditions and compared to other jobseekers, including groups with severe employment obstacles, MIS beneficiaries are more likely to work part-time, in shifts, and in sectors such as hospitality and in micro and small enterprises. While these jobs provide labour market experience and a source of income, ensuring access to stable and quality employment remains a key challenge.

1.2.2. MIS beneficiaries do not experience employment stability or career progression

The analysis of labour market trajectories in both Belgium and Greece indicates that MIS beneficiaries follow diverse pathways over time, with some transitioning into employment while others remain detached from the labour market. Even among those who find work, employment trajectories are often unstable and progression towards sustainable, quality jobs remain limited, reflecting the persistent barriers many beneficiaries face.

In Belgium, while many MIS beneficiaries eventually exit the scheme, one in three continues to rely on the scheme several years after entry. Transitions into employment may vary by region, educational attainment, and migration background. Three years after entry, former MIS beneficiaries remain concentrated in

manual occupations and administrative and support services, sectors characterised by low formal entry requirements, with limited progression towards more diversified and higher-quality employment. Although, the Article 60 programme plays a key role to enable the most disadvantaged MIS recipients to transition into the unemployment insurance system, many programme participants continue to experience weaker employment outcomes and limited progression opportunities. Three years after entering unemployment benefits, only around one in three former Article 60 participants are in employment, compared with one in two beneficiaries who did not participate in the programme. Former participants are also much more concentrated in manual occupations, accounting for around 70% of employment outcomes compared with 45% among non-participants. These findings suggest that many MIS beneficiaries face substantial and persistent barriers to sustainable labour market integration even after entering employment.

In Greece, most transitions into employment occur through registered unemployment, a pattern that likely reflects both the role of DYPA and the influence of registration requirements for benefit eligibility. However, similarly to Belgium, entry to employment does not guarantee lasting labour market integration. Only 38% remain continuously employed one year after entering work, while more than half experience at least one occupational change within the three years following their first post-MIS job. Although some improvements in job quality are observed over time, earnings growth remains modest, particularly among older beneficiaries. Participation in ALMPs also remains limited, with fewer than one in ten jobseekers taking part in at least one programme (excluding training). This suggests that registration with DYPA does not, in most cases, translate into participation in ALMPs.

1.2.3. There is a need for digital tools to recommend career pathways and support services in addition to referring users to specific vacancies

In the case of Belgium, such job and career recommendation tools for MIS beneficiaries should support early intervention by providing timely information on vacancies, training opportunities, and career pathways, before reliance on the scheme becomes long lasting. To improve employment outcomes, these digital tools should provide tailored recommendations based on individual skills profiles and regional labour demand, while integrating pathways to upskilling and reskilling opportunities. Given the concentration of MIS beneficiaries in lower-quality service jobs, these tools should not only facilitate access to immediate vacancies but also highlight opportunities in underutilised sectors and support progression towards more stable and higher-quality employment. Integration with training offers and certification recognition systems could be particularly valuable in helping beneficiaries transition into more sustainable and non-manual occupations.

Similarly, in Greece, job matching and career recommendation tools could support MIS beneficiaries in identifying additional employment opportunities to complement their existing jobs, exploring pathways towards more stable and better-quality jobs, and recognising transferable skills that enable mobility across occupations. Given that some transitions may require upskilling or reskilling or additional experience, digital tools should also facilitate access to relevant training and ALMPs. At the same time, the design of these tools should account for the low digital skills and accessibility barriers often faced by MIS beneficiaries.

1.2.4. Other EU and OECD PES provide inspiration for tailored job and career recommendation tools

PES across EU and OECD countries increasingly rely on digital tools enhanced by AI to support both the immediate goal of matching jobseekers to available vacancies and the longer-term task of guiding them towards sustainable career development. AI-based job matching tools are relatively mature, while career recommendation tools remain at an earlier stage with significant growth potential.

Many PES including those in Austria, Finland, France, Korea, the Netherlands and Sweden, use digital and AI-enhanced tools to support jobseeker profiling, skills identification, job search, competency-based

matching, vacancy management, information provision and personalised career guidance. These tools combine structured and unstructured data to identify relevant opportunities, highlight transferable skills, and support counsellors in identifying suitable jobs. These countries have also introduced career recommendation tools that help jobseekers explore adjacent occupations, identify training needs, and plan pathways towards more sustainable employment. Such functionalities are particularly relevant for MIS beneficiaries, who often face complex barriers and fragmented labour market trajectories.

International experience also highlights lessons for implementation. Inclusivity and accessibility are at the forefront of the design of these tools. Countries such as Austria, Germany, the Netherlands as well as Belgium itself (Flanders) place particular emphasis on accessibility, transparency, user feedback, and safeguards against algorithmic bias to ensure that digital tools remain trustworthy, and responsive to users' needs. Similarly to the progress already made in Belgium (Flanders), France and Israel have focussed on improving data quality through the integration of career data and the adoption of common standards such as the European Skills, Competences, Qualifications and Occupations (ESCO), while strengthening IT and analytical capacity, often in partnership with the private sector. Experiences from Korea and Lithuania showcase the importance of embedding digital tools within broader employment and social support services, recommending jobseeker pathways rather than only vacancies. To ensure accessibility to digital tools, many PES have introduced dedicated support for users with low digital skills, including assistance by PES staff and mobile-friendly interfaces.

1.2.5. This report proposes a concept for a personalised employment and career guidance system

Drawing on the country assessments, international evidence, and data analysis, this report proposes a comprehensive concept for AI-powered digital solutions. The objective is to support MIS beneficiaries and other jobseekers with severe employment obstacles in accessing employment and progressing in their careers, while delivering benefits at both the individual and institutional levels. Rather than creating multiple standalone tools, the concept emphasises a unified platform that brings together all key services through one interface, improving user experience, reducing fragmentation, and ensuring interoperability, scalability, and long-term sustainability.

The proposed platform is built around five core functional pillars: personalised job matching, enhanced vacancy management, identification of jobseekers' skills and employment barriers, access to labour market insights, and recommendations for career pathways and progression opportunities. By leveraging AI across these functions, the platform can create more complete and structured profiles of jobseekers, improve the quality and visibility of vacancies, support counsellors and social workers in identifying individuals requiring additional support, and generate more precise job matching outcomes. Beyond connecting individuals with current vacancies, the platform can also translate labour market intelligence into personalised career and training recommendations, helping users make informed decisions about sustainable employment and career progression.

The report outlines country-specific implementation approaches by recognising the different institutional and governance structures in Belgium and Greece. In Belgium, where employment services are decentralised, the preferred approach would be to connect existing regional systems through a federally co-ordinated interoperability layer. A shared governance framework would ensure common standards and interoperability across regions, while allowing regional PES to retain full autonomy over service delivery. It would also promote mobility, thereby benefiting users to explore opportunities beyond their regional borders. In Greece, the platform could either build on the existing DYPA infrastructure or be developed as a new system, depending on technical feasibility. The tool should eventually function as a unified national platform for all users, beyond MIS beneficiaries. A joint governance model is proposed to strengthen links between the MIS, ALMPs, and employment support services.

Where a fully integrated platform is not feasible, the report proposes a standalone AI-powered career recommendation tool as an alternative. This solution would provide personalised career guidance and options beyond immediate placement, training and ALMP recommendations, independently of a broader matching system, while still delivering significant value to users and supporting informed career development and progression.

Key policy recommendations

Develop integrated and user-centred job matching and career recommendations tools

- Prioritise an integrated digital environment in which job matching, career recommendations and other relevant functionalities are connected through the jobseeker's existing account, building on the tools already developed or under development and ensuring that MIS beneficiaries can benefit from the same functionalities available to other registered jobseekers. Where additional functionalities are needed to address the particular barriers faced by MIS beneficiaries, these should, where feasible, be integrated into the existing digital environment.
- Design and further develop tools around users' needs, ensuring that recommendations take account of skills including transferable ones, work experience, preferences, constraints, and employment barriers, opportunities with strong current and future labour demand or persistent recruitment difficulties.
- Use digital tools to support, rather than replace, the judgement and expertise of counsellors and social workers, and their personal interaction with jobseekers, embedding AI-generated insights within case management and personalised support.
- Ensure that digital solutions remain accessible and usable, particularly for users with low digital skills or multiple disadvantages, including through assisted use, alternative access channels and targeted user support.
- Ensure that the developed solutions support the full employment pathway of MIS beneficiaries, from the early identification of barriers to employment through to post placement and career progression.
- Integrate job and career recommendation tools with social services, training, ALMPs and certification recognition systems, to help MIS beneficiaries navigate available support and access the different services needed to move into higher-quality and more sustainable employment.
- Complement digital tools with broader measures that improve job quality, strengthen the targeting and effectiveness of ALMPs, and expand access to social support services for MIS beneficiaries.

Establish effective governance and implementation arrangements

- Establish clear governance structures, roles, and responsibilities to ensure that AI-powered job and career recommendation platforms operate securely, transparently, and in line with national (and regional, in the case of Belgium) social and labour market policies.
- Implement new functionalities gradually, starting with a limited set of high-priority features and expanding them based on implementation experience, institutional and technical readiness, available resources and user feedback. Support this with a clear roadmap with defined objectives, timelines, and resource requirements.

- In Belgium, prioritise functionalities that provide personalised vacancy, social support, training and certification options based on MIS beneficiaries' skills profiles and regional labour demand, with a particular focus on identifying routes into higher-quality occupations and sectors with strong labour demand that are not commonly entered by MIS beneficiaries.
- In Belgium, connect existing regional employment service systems through a federally co-ordinated interoperability layer, supported by common governance and data standards to facilitate cross-regional mobility and service co-ordination.
- In Greece, build on existing and emerging tools functionalities, including the soft skills assessment and AI-supported job description tools, to strengthen the identification of transferable skills and skills gaps, recommend relevant social services, training and ALMPs, and improve vacancy management. This could include further integrating these functionalities to broaden access to suitable job opportunities and help employers identify suitable candidates who might otherwise be overlooked.
- In Greece, build on the DYPA's existing and emerging digital tools to strengthen the integration and interoperability of job matching, career guidance and labour market intelligence functionalities, and establish joint governance arrangements linking the MIS, ALMPs and employment support services.
- Pilot and test the new tools before large-scale deployment, engaging key stakeholders, such as employer organisations, associations representing underrepresented groups, trade unions, and employment and social service staff, throughout the design and implementation process.
- Provide counsellors and social workers with training on how to interpret and use recommendations generated by the tools, integrate them into case management, understand their limitations and avoid over-reliance on automated recommendations. Provide jobseekers and employers with guidance and ongoing user support, including help lines, online assistance and assisted access for users who require additional support or have low digital skills.

Ensure access to timely, high-quality, and linkable data for the job and career recommendation tools

- Establish a dedicated legal framework for linking and reusing administrative data across institutions to support AI-enabled job and career recommendation tools, in compliance with national and European regulations, including the EU AI Act.
- Define clear rules on data access, data sharing, institutional responsibilities, and safeguards for the operation of AI-enabled employment services and ensure that users are informed about how AI-supported recommendations are generated and how these recommendations are used.
- Prioritise the integration of data on skills, employment histories, ALMP participation, employment barriers, and labour demand, including labour market intelligence, to support personalised recommendations and respond to evolving skills needs.
- Build on existing classification frameworks and data standards, to further promote consistent coding of skills, occupations, and employability factors across relevant systems and data sources, supporting interoperability and data quality.
- Use longitudinal employment and skills data to strengthen career recommendation functionalities and identify progression opportunities.
- Use demographic and outcome data to monitor the performance, accessibility, fairness, and potential biases of AI-enabled tools.
- In Belgium, strengthen interoperability and harmonisation between welfare offices, PES, and other relevant institutions through the CBSS, to enable integrated and near real-time data exchange for job matching and career progression purposes.

- In Greece, expand interoperability and data-sharing arrangements between the MIS registry, DYPA, ERGANI and ALMP data to enable real-time linkage and exchange of labour market, social protection, and welfare data for job matching and career guidance purposes.

Fine-tune the job matching and career recommendation tools based on evidence

- Monitor the performance of the tools from their introduction, including take-up by MIS beneficiaries and employers, the quality of recommendations provided, and subsequent employment outcomes, and, where feasible, evaluate their causal impact on labour market outcomes.
- Use monitoring and evaluation results, as well as implementation evidence and user feedback to regularly refine the tools, including by enhancing underlying recommendations algorithms, adjusting functionalities, improving the presentation of results, and addressing any biases or gaps in performance across user groups.

2 Greece and Belgium are well-positioned to adopt digital solutions for better job matching and career progression

Even though Belgium and Greece have well-established systems in place to support Minimum Income Scheme beneficiaries including through complementary services and employment opportunities, many beneficiaries still face barriers to labour market access. In addition, both countries – though to a different extent – lack dedicated digital tools to effectively support MIS beneficiaries and other disadvantaged groups. The present chapter discusses four main topics for each country, taking into account their specific context and conditions. Firstly, the institutional setup of the Minimum Income Scheme and its links to other services. Secondly, the existing digital tools and their limitations in supporting the matching of MIS beneficiaries with suitable job opportunities. Thirdly, promising data that could underpin more advanced digital solutions. Finally, key feasibility considerations vis-a-vis the countries preparedness to develop dedicated digital solutions to further support this group.

2.1. Introduction

Minimum Income Schemes (MIS) intend to support those most in need, including by connecting them with complementary services and employment opportunities. Nevertheless, MIS beneficiaries in countries such as Belgium and Greece still face major barriers to labour market access. In addition to individual-level challenges, both countries – though to a different extent – lack dedicated digital tools to effectively support MIS beneficiaries and other disadvantaged groups. Existing platforms, including regional ones in Belgium, typically offer vacancy searches and matching services, but fail to adequately respond to the specific needs of this target group. What is more, job postings often do not align with the profiles of MIS beneficiaries, leading to a mismatch where potential opportunities and suitable candidates are overlooked on both sides. However, challenges do not pertain to matching inefficiencies alone. The availability, quality, and sustainability of jobs accessible to these groups are often insufficient, which constrains even more their effective labour market integration although this largely reflects broader labour market conditions beyond the direct control of the PES. While this aspect falls beyond the introduction of dedicated digital solutions per se, it remains an important contextual factor shaping outcomes for MIS beneficiaries and other vulnerable populations.

The present chapter is organised into two sections focussing first on Greece and then on Belgium, following the same structure. Each section begins with an overview of the minimum income scheme, the types of support it provides, and its linkages to other services. It then examines existing digital tools, with a particular emphasis on the gaps and limitations that prevent them from effectively supporting the job matching and career progression of MIS beneficiaries and other vulnerable groups. The third part highlights promising data sources in both countries that could support digital solutions for job matching and personalised career guidance. The final part includes key feasibility considerations. In the case of Belgium, the discussion takes into consideration the country's federal and regional institutional structure.

2.2. Greece is sufficiently digitally advanced, the needs are clear, and advanced matching and career recommendations tools are both relevant and feasible

2.2.1. The institutional setup of the minimum income scheme in Greece integrates policy design at the national level with service delivery at the local level

Piloted in 2014-2015 and implemented nationwide in 2017, the Greek Minimum Income Scheme (also known as Guaranteed Minimum Income (GMI) scheme and as *Ελάχιστο Εγγυημένο Εισόδημα* in Greek) was designed as a last-resort safety net, supporting households in extreme poverty.

The institutional framework governing the scheme combines centralised policy design and implementation at the national level. The MIS operates under the overall responsibility of the Ministry of Social Cohesion and Family (MinSCFA) – particularly the General Secretariat for Social Solidarity and Combating Poverty, which designs its policy framework and oversees its national co-ordination. At the local level, implementation is carried out through a network of 363 Community Centres, which serve as entry points for beneficiaries.

Since the scheme's nationwide rollout, several reforms have strengthened the link between income support, social services, and labour activation. The integration of the Fund for European Aid to the Most Deprived (FEAD) into the MIS's eligibility rules and operational processes in 2017 allows beneficiaries to be automatically enrolled in complementary support directly through the MIS platform. Since 2018, all unemployed and work-able household members must register with the Greek Public Employment Service (DYPA) as a prerequisite for maintaining eligibility (Government Gazette B 2281/15.6.2018). Efforts to link MIS beneficiaries with social support and active labour market policies (ALMPs) began with a pilot in

32 municipalities in 2019 and were rolled out in June 2021, alongside IT adjustments connecting the MIS platform with DYPA's information system (Government Gazette B 3359/28.7.2021).

The Greek MIS is based on three pillars: a) income support, b) social inclusion services and c) ALMPS (Directorate for the Fight Against Poverty, 2024^[1]). The scheme is financed through a combination of national resources and, for certain components, European co-financing. It covers single and multi-person households, as well as homeless people who reside legally and permanently in Greece, provided they meet defined income and property eligibility criteria.

Applications to the scheme are submitted electronically. This can be done either directly by the applicants using their tax credentials or through the competent services of their municipality or the Community Centre of their municipality with support from staff.^{1,2} The scheme relies on robust digital infrastructure that automatically retrieves data from various national administrative databases to verify eligibility in real time, while enabling continuous monitoring and reducing fraud and duplication. Once approved, the benefit is paid by the Organisation of Welfare Benefits and Social Solidarity (OPEKA) on a monthly basis. Eligibility must be reassessed every six months. Beneficiaries are required to keep their information up to date and continue meeting activation and school attendance obligations in order to remain eligible for the scheme.³ In addition to eligibility, updated information would be essential to maintain accurate user profiles for job matching purposes.

Social inclusion services include complementary social services, benefits and goods such as free medical care and medications for the uninsured, reduced rates on utility bills, and access to essential goods, including food and basic assistance packages. Staff at the Community Centres play a key role as they advise beneficiaries on the availability of such services and refer them to those. Community Centres also provide advisory support on employment, youth opportunities, family and legal issues, educational support, and local social initiatives. Some Community Centres in mountainous or island municipalities operate mobile units that serve residents in remote areas. In addition, some Community Centres have dedicated branches for Roma and migrants providing specialised services tailored to their specific needs.

The final step towards self-sufficiency are ALMPs which are implemented by DYPA. Such support may include counselling services, career guidance, seminars, referrals to jobs and measures like employment incentives, vocational training programmes, work experience programmes and public works.⁴ DYPA gathers data on all registered jobseekers, including MIS beneficiaries. Some municipalities also operate integrated labour offices, offering job-search support to their citizens. To some extent, this creates some duplication of efforts or variation in the support available depending on the location. Due to the fact that all these actors, namely the Community Centres, municipalities and KPAs, deploy separate systems with some sort of interoperability, relevant information about MIS beneficiaries may not be consistently shared. This fragmentation may affect the labour market prospects of the target group, thereby highlighting the need for more integrated digital solutions on this front.

DYPA's local Employment Promotion Centres (KPAs) are responsible for supporting jobseekers with their integration into the labour market. The standard activation procedure is well structured and the same for all jobseekers, whether they are MIS beneficiaries or not. Following registration with DYPA, a jobseeker completes an online profiling questionnaire. With the exception of jobseekers who are assigned as closest to the labour market and therefore receive an automated digital Individual Action Plan (DIAP), everyone else then meets with a job counsellor – either in person at a local KPA, by telephone, or online via DYPA's digital counselling platform – and jointly develop a DIAP. In addition, DYPA provides specialised services and ALMPs for unemployed individuals belonging to Special Social Groups (EKO), such as persons with disabilities, young people at social risk, young offenders, and individuals rehabilitated who have completed a rehabilitation programme. In addition to KPAs, DYPA has a small number of Offices for Special Social Groups to specifically support vulnerable groups through in-person interactions with specialised counsellors and other staff. Nevertheless, high counsellor caseloads (approximately 665 clients each) limit the depth and frequency of personalised support.

2.2.2. DYPA deploys various digital tools to support jobseekers, albeit these tools are not well connected with each other and to the needs of MIS beneficiaries

Greece has made notable progress in modernising its IT infrastructure in recent years, particularly since the COVID-19 pandemic, with substantial investments financed through the Recovery and Resilience Facility further accelerating DYPA's digital transformation. Several tools support jobseekers, albeit these tools have not been designed for nor exclusively used by MIS beneficiaries. DYPA offers more than 80 e-services, including online registration, submission of applications for benefits and programmes, renewal of unemployment card, and posting and updates of CV. Since 2018, DYPA has employed a rules-based profiling tool to assess jobseekers' employability and refer them to the appropriate services. The tool draws on data collected through a mandatory online profiling questionnaire. Based on the jobseekers' responses to this questionnaire as well as some on/off criteria, jobseekers are assigned to one of five categories that reflect their relative distance from the labour market.⁵ While the questionnaire includes some questions to capture the employment barriers of jobseekers, comprehensive tools to identify the skills – particularly informal, soft, and transferable ones – and needs of jobseekers are currently lacking. A soft skills assessment tool, developed with financing from the Recovery and Resilience Facility and currently in a pre-launch phase is expected to help address part of this gap and will be accessible through DYPA's e-services. In previous years, the profiling process was not always completed consistently, which could lead to limited or ambiguous results and reduce its usefulness for counsellors in their interactions with jobseekers (OECD, 2026^[2]). Since June 2025, however, the profiling questionnaire has been integrated into the registration process and is now completed by all jobseekers, ensuring more systematic coverage.

Digital counselling has expanded through the *myDYPAlive* platform, introduced in 2020 (European Commission, 2021^[3]). Counselling on this platform is delivered by specially trained counsellors from various local employment offices around Greece. While the platform provides counselling for both jobseekers and employers, it has been particularly beneficial for individuals with disabilities and other vulnerable groups facing significant barriers to labour market integration. There are several new features, such as specific counselling services with interpretation for foreigners and people with hearing disabilities. Feedback collected through the platform has shown that the vast majority of users are highly satisfied (OECD, 2025^[4]). The IAP is a key part of the counselling and referral process at DYPA, and its digitalisation streamlined significantly both its creation and the tracking of underlying actions. While helpful in easing administrative processes, these tools do not yet link to matching systems.

Beyond administrative use, DYPA has started leveraging data to monitor ALMP provision through a dedicated Monitoring and Evaluation System, marking a first step towards a more evidence-based approach in the design and implementation of these policies. Moreover, DYPA's data are fed into the Labour Market Diagnosis Mechanism (MDAAE), a foundational tool for designing data-driven labour policies in Greece. Among its various functions, the MDAAE collects, analyses, and visualises labour market data – such as employment, unemployment, and vacancies – and identifies the professions and skills most in demand across sectors, regions, and municipalities. It has been developed by the National Institute of Labour and Human Resources and is currently administered by the unit of Experts in Employment, Social Insurance, Welfare and Social Affairs (MEKY) of the Ministry of Labour and Social Insurance (Mechanism of Labour Market Diagnosis, 2025^[5]). Although MDAAE generates valuable labour market intelligence it is not yet widely available in user-friendly formats for beneficiaries or counsellors and is not integrated into matching or guidance pathways.

Since 2022, DYPA has used an AI chatbot (“Daphne”) based on natural language processing to answer the queries individuals and employers have about PES services and measures. Its functionality is helpful but limited to rule-based information provision and is not connected to user profiles or matching decisions.⁶

DYPA is currently in the process of modernising its current operational IT system. This includes the implementation of a new Integrated Information System (the so-called *OPS3*). In addition, the agency has

ideas for future digital service improvements including via the use of AI. Such ideas include for instance the development of an AI-based chatbot to support CV creation, the development of “*Gaspar*”, an AI-based tool for digitalising records, tools for assessing jobseekers’ skills, along with AI elements to help reduce counsellors’ administrative workload, improve links between administrative registers and the use of up-to-date labour market information in service provision. As part of a recently started EU TSI funded project, the OECD supports DYPA (and the French PES), in their ongoing efforts to modernise their service delivery systems, including through the integration of AI tools in line with the requirements of the EU AI Act and the relevant national legal framework (Laws 5188/2025 and 5321/2026). For DYPA, the project will propose a comprehensive AI strategy along with an action plan detailing the concrete steps needed for its implementation.

Despite the introduction of new solutions, matching processes remain largely manual and dependent on co-ordination between counsellors. Digital matching for vulnerable groups is almost non-existent. DYPA’s website integrates a job-matching application, currently operating within an internal testing environment. This tool aims to connect registered jobseekers with employers drawing directly on the characteristics, qualifications, specialisation and skills recorded in the jobseekers’ profiles during registration and the development of their IAP, alongside information on available vacancies. The application also includes a user interface for DYPA staff. More recently, DYPA has introduced the so-called *JOBmatch* mobile app. While the app enables employers and jobseekers to search independently, it is not connected to DYPA’s or other administrative registers, does not incorporate beneficiary profiles, doesn’t allow mediation from DYPA’s counsellors and is limited to specific sectors.⁷ As a consequence, vacancy and employer information is spread across DYPA’s portal, the tourism-sector matching app, and private platforms, resulting in fragmented and incomplete data for matching. To add to this, employer participation, although increasingly improving, is not always consistent, limiting the number of available vacancies. Finally, while career recommendation functionalities are still evolving, DYPA has started to integrate elements of career guidance into its emerging AI-supported tools. These include ESCO-based occupation and skills recommendations as well as an interface with the MDAE integrated into the Digital AI Assistant for the CV to support more informed career choices.

2.2.3. While administrative data quality is high, fragmentation and limited interoperability constrain systematic sharing and effective use

In Greece, the actors involved in the implementation of the MIS collect information and data within their respective databases for operational purposes. Three main registers collect information related to MIS beneficiaries. First, the MIS platform serves as the primary system for collecting data on MIS applicants to assess their eligibility. It is operated by the Greek e-Government Center for Social Security (IDIKA) under the supervision of the MINSCFA. Data include details on household composition and size, region of residence, degree of disability, educational attainment, as well as income and assets. Second, DYPA gathers data on all jobseekers – including MIS beneficiaries – who are registered with the PES, supporting DYPA’s operational functions. While the majority of data collected by DYPA – such as unemployment information, data on competences and skills and ALMP participation – are stored in DYPA’s Integrated Information System (IIS), some specific information such as participation in training programmes, is recorded in a separate register managed by the external provider, the Computer Technology Institute and Press (Diofantos). DYPA also store data on job vacancies. Third, the ERGANI employment register, maintained by the Ministry of Labour and Social Insurance, records all employment contracts in the private sector, including those involving MIS beneficiaries, containing information on employment histories and employers. Data exchange between different registers is facilitated by the web services provided by the Interoperability Center (KED) of the Ministry of Digital Governance.⁸

These systems, however, largely operate in isolation, with data sharing occurring only on an ad hoc basis or when initiated by individual case workers. While KED web services provide some interoperability, their

use is still limited to specific processes, such as deregistering jobseekers from DYPA upon entering employment. As far as the data itself is concerned, recent investments in the digital backbone of the Greek public sector have contributed to making it more readily available in digital form, reducing errors, improving efficiency and enhancing quality. However, data quality and consistency for earlier years vary, limiting the possibility to track individual career trajectories over a longer period. On the labour demand side, the coverage of vacancy data collected by DYPA is limited, as only a small proportion of employers currently register vacancies with DYPA, which limits the possibility to match jobseekers with suitable job opportunities. Due to limited data exchange, some information is collected multiple times by different institutions through different means. For instance, both DYPA and ERGANI collect data on individual employment histories, DYPA through information provided by jobseekers, and ERGANI via employer-submitted hiring and layoff declarations. While employment data from ERGANI serve as an important building block for any digital tool designed to improve the matching of MIS beneficiaries with labour market demand, the lack of information on public servants and self-employment limits the ability of ERGANI to fully capture individual employment trajectories.

2.3. Belgium can make greater use of matching and career tools, provided interoperability and multi-level governance challenges are addressed

2.3.1. The minimum income scheme in Belgium is designed at the national level, but its implementation is highly decentralised

Belgium's MIS (*Revenu d'intégration sociale* – RIS in French or *Leefloon* in Dutch) established by law in 2002, is designed at the national level but its implementation is highly decentralised. At the national level, the Federal Public Planning Service for Social Integration (*Service Public de Programmation Intégration Sociale* – SPP IS) is responsible for regulatory oversight, policy co-ordination, and financial support to implementing bodies. However, the actual delivery of the scheme takes place locally. Each of the 581 municipalities in Belgium operates a Public Centre for Social Welfare (*Centre Public d'Action Sociale* – CPAS in French / *Openbaar Centrum voor Maatschappelijk Welzijn* – OCMW in Dutch), which administers applications, assesses eligibility and provides both cash benefits and complementary in-kind assistance.

This structure means that policy is uniform across the country, but day-to-day implementation varies from one municipality to another, reflecting differences in local capacity, resources, and practices. Social workers at CPAS/OCMWs make case-by-case assessments, co-ordinate with regional employment services, and determine the content of individualised integration plans. In this sense, decentralisation refers to the delegation of operational, case-management, and service-delivery responsibilities to the municipal level, even though the legal framework and financing are established nationally.

The scheme guarantees a minimum standard of living for individuals and households without adequate resources, while promoting social integration through inclusion measures and employment support.⁹ The scheme combines financial assistance with social activation measures, providing immediate income support on the one hand while promoting beneficiaries' longer-term social and economic integration on the other. Beneficiaries may be required to sign an Individualised Project for Social Integration (*Projet Individualisé d'Intégration Sociale* – PIIS in French, *Geïntegreerd project voor Maatschappelijke Integratie* – GPMI in Dutch), outlining the necessary steps towards social and labour market integration.

Individuals can submit their applications online (only for first-time applicants) or at their local CPAS/OCMW. They can either visit the CPAS/OCMW on their own initiative or be referred by another institution (for example, employment or housing services). During the first contact, a social worker in the CPAS/OCMW conducts a preliminary assessment of the applicant's situation. Then the CPAS/OCMW conducts a social investigation – often including a home visit – to verify the living situation and needs of the applicant. A

report is then compiled proposing a decision to the CPAS Council, which formally grants or denies the benefit.¹⁰ CPAS/OCMW collect rich information about beneficiaries' needs and circumstances, but this information is not systematically captured or linked across municipalities or with employment services.

Once enrolled in the scheme, beneficiaries gain access to a wide range of services co-ordinated by CPAS/OCMW, including housing support, healthcare access, psychological or family support, debt counselling, and ALMPs delivered by the competent regional employment services – namely the Walloon Public Service for Employment and Vocational Training (Le Forem), the Public Employment Service of the Brussels-Capital Region (Actiris), the Flemish Employment and Vocational Training Service (VDAB) or the *Arbeitsamt der Deutschsprachigen Gemeinschaft* (ADG) serving the German-speaking Community of Belgium. Other services may also include education and training such as language courses, vocational training, or second-chance education.

For beneficiaries who are able and willing to work, CPAS/OCMWs may also place them in Article 60 or Article 61 public-works schemes. In this arrangement, the local CPAS/OCMW acts as the formal employer, providing the beneficiary with a temporary, subsidised job within the municipality, other public service or with an external – usually non-profit – organisation. The duration of these contracts corresponds to the number of working days required to qualify for unemployment benefits and varies depending on the beneficiary's age (from 312 to 624 days). During this period, the CPAS/OCMW pays both wages and social security contributions. Once this period ends, responsibility for labour market support typically shifts to the regional PES. While the schemes were developed as a way to help beneficiaries gain work experience and re-enter the labour market, in practice, they often serve as an administrative pathway out of social assistance rather than a stepping stone to sustainable labour market integration. However, this information is not consistently kept and interoperable across municipalities.

2.3.2. Belgium has a wide range of digital and AI-enabled tools, but these systems have not been designed for MIS beneficiaries and remain fragmented across regions

Belgium benefits from a strong digital and data infrastructure, but the way information is organised across federal, regional and local levels shapes what is possible for MIS beneficiaries. Belgium's social protection and labour market systems operate within a highly developed digital environment, supported by the Crossroads Bank for Social Security (BCSS/KSZ), which enables secure data exchange between autonomous administrative registers. This network allows employment services, CPAS/OCMW and federal institutions to verify information such as income, assets or residency in real time and to co-ordinate across systems. In practice, however, this infrastructure functions mainly as a backbone for administrative processes rather than as an integrated platform for activation. The decentralised nature of CPAS/OCMW, each with its own systems and practices, means that essential information about MIS beneficiaries' skills, barriers or employment history (among which professional experience under Articles 60 and 61) is either not recorded or recorded inconsistently, limiting the depth and comparability of digital profiles.

The integration of MIS beneficiaries into employment support has been progressively strengthened in recent years. Already in 2014, a federal circular instructed CPAS/OCMWs to register recipients of the minimum income allowance with the regional PES, except where exemptions apply on health or equity grounds (POD Maatschappelijke Integratie, 2014^[6]). More recent reforms have sought to strengthen the implementation of this principle. In Flanders, in particular, a 2024 Decree has contributed to an increase in the number of OCMW clients registered with VDAB (Flemish Government, 2024^[7]). The federal unemployment reform that took effect in 2026, including the limitation of the duration of unemployment benefits, provides further impetus for closer integration between social assistance and employment support and for strengthened co-ordination between CPAS/OCMWs and the regional PES. Against this backdrop, social assistance beneficiaries considered able to participate in the labour market are increasingly expected to be registered as jobseekers with the regional PES, allowing their profile and employment-support needs to be recorded in a structured digital file. The practical arrangements underpinning this

co-ordination vary across regions. In Wallonia, for example, systematic information exchange between the PES (Forem) and the CPAS, supported by information available through the BCSS and a centralised partner space within Forem, enables the specific circumstances of MIS recipients registered as jobseekers to be taken into account and facilitates more co-ordinated employment and social support pathways.

Regional PES have developed sophisticated AI-enabled tools, but these remain largely confined to the PES environment. Across the three main regional PES several advanced profiling, matching and career-guidance tools are already in use to support jobseekers. VDAB pioneered AI-driven profiling with its “*Next Steps*” model and later the *Kans-op-werk* tool, which predicted the risk of long-term unemployment using administrative and user interaction patterns. The use of behavioural data was eventually discontinued due to concerns about fairness and potential biases. Le Forem adopted a similar machine-learning profiling model in 2022, using personal characteristics and past engagement with employment services to estimate a jobseeker’s likelihood of finding work within six months. While these tools are able to predict accurately the risk of long-term unemployment and support caseworkers in identifying individuals who may need more intensive guidance (Desiere and Struyven, 2020^[8]), evaluations highlight certain limitations, including model bias and the challenge of interpreting scores without considering the judgement of the caseworker (Brioscú et al., 2024^[9]).

Beyond profiling, regional PES also offer a wide range of AI-assisted tools that help jobseekers understand their skills and navigate labour market opportunities. These include VDAB’s *Jobbereik* (Job Reach), which uses deep learning and graph analytics to identify how jobseekers’ competencies and skills relate to alternative occupations. It doesn’t take into account only their input occupations but also core transferable skills that can be useful in other occupations and industries, hence providing significant insights into job mobility related decisions. The tool also includes a functionality that suggests relevant training and education pathways to close the gap between the jobseeker’s skills and the skillsets of the desired occupations (Brioscú et al., 2024^[9]). A similar AI tool, the *Competentiecheck* (Competency Check) allows citizens to self-assess their competencies vis-à-vis a specific role (Brioscú et al., 2024^[9]), while VDAB’s *Orient 2.0* uses an AI-based questionnaire to suggest occupations aligned with individual interests and preferences, leveraging the VDAB taxonomy of occupations and skills.¹¹ Outcome monitoring was integrated into their regular processes to ensure fairness and mitigate potential risks (Superlinear, 2025^[10]).

Sophisticated matching tools enriched with AI elements are also in place. Systems such as *Jobnet* and *Talent API* used by VDAB can help improve the accuracy of job recommendations. *Jobnet* is a self-learning algorithm for semantic matching between jobseekers and vacancies, while *Talent API*, a more advanced AI tool which combines deep learning and natural language processing to generate tailored job recommendations. To do so, it relies on jobseeker information – including work experience, skills and geographic location – as well as vacancy text, including synonyms, to expand potential matches. What is more, the tool factors in the jobseeker’s vacancy-browsing behaviour, in order to identify similar opportunities to the vacancies that jobseekers have already viewed. The tool is considered relatively transparent (compared to its predecessor) as the matching scores are visible to the jobseekers, explaining the rationale behind each match (OECD, 2022^[11]).

Sometimes vacancy descriptions can be inconsistent or incomplete. To enhance vacancy data quality, VDAB developed *Competentiezoeker* (Competency Extractor) using AI. In principle, the tool analyses information entered by users or extracted from their CVs to identify the jobseeker’s skills based on their work experience. An additional feature automatically identifies skills from job postings including the ones that are not explicitly mentioned or are omitted. What is more, its *Beroepzoeker* (Occupation Finder) ensures that vacancies are labelled with the correct occupation classification. More specifically, the tool estimates the proximity of each vacancy to the 600 occupations in the VDAB’s occupational taxonomy, relabelling job advertisements with the closest matching occupation. This improves the accuracy of job postings for employers and enhances job searches for jobseekers through greater consistency across listings. Since 2023, Le Forem employs a similar algorithm based on natural language processing to

automatically classify vacancies posted by employers on the PES website according to the occupational classification. Finally, VDAB is currently developing *Kandidatenbereik*, an employer-oriented tool that applies deep learning and graph analytics to map candidates who fully or partially match the profile of a posted vacancy.

Belgium harness AI for monitoring and knowledge generation purposes as well. A prominent example within this domain is VDAB – the PES utilises autoregressive neural network models to both measure and forecast the demand for occupations and the associated skills, using data from job vacancy postings.

Finally, to promote responsible and effective use of AI tools, Belgium places strong emphasis on governance as well as staff engagement. For example, informal information sessions are organised by VDAB to familiarise staff with new technologies and foster open dialogue between caseworkers and IT teams. Beyond training, the Flanders region of Belgium has established an Ethics Board to provide guidance to VDAB on AI use.

Despite these innovations, their benefits do not reach MIS beneficiaries. Most AI-enabled and digital tools are embedded within PES systems, which are designed for registered jobseekers more broadly. MIS beneficiaries typically engage first and most frequently with the local CPAS/OCMW, whose administrative systems vary considerably across municipalities and are not consistently linked to regional PES platforms. This fragmentation makes it difficult to develop a coherent digital profile of a beneficiary and limits automated referrals or personalised guidance. As a result, many MIS beneficiaries have limited access to suitable opportunities and receive little structured digital support, despite the advanced tools available elsewhere in the system, including in the regional PES.

This fragmentation leaves important needs unmet, particularly for jobseekers with complex or non-linear employment histories. From a matching perspective, there is currently no unified tool linking CPAS/OCMW records with PES profiling, matching or career-planning systems. Labour-demand data are generally updated quarterly and housed within regional systems, reducing their usefulness for real-time or individual-level matching. Data on soft skills, employability barriers, or progression are often captured informally or in free-text notes, making them difficult to use in digital tools. As a result, existing systems cannot adequately identify informal or transferable skills, which are common among MIS beneficiaries. Without these insights, jobseekers risk being channelled into low-quality or short-term jobs that do not match their strengths or long-term aspirations.

The absence of interoperable tools can significantly hinder the efficiency of matching and undermine inclusive participation in the labour market. Profiling frameworks differ across regions, vacancy data are dispersed across separate PES systems, and the use of federal social-integration platforms such as Nova PRIMA/Nova+ is only optional. This means that information on Article 60/61 placements, labour market transitions or training participation is not systematically transmitted across institutions. These inconsistencies reduce the ability to co-ordinate activation strategies and limit the potential of data-driven guidance. Overall, the fragmentation of systems underscores the need for more harmonised practices, interoperable tools and mechanisms that allow federal, regional and local actors to work with shared information. These would generate important benefits for MIS beneficiaries and other vulnerable groups because it would give counsellors and jobseekers themselves access to a fuller picture of individual skills, needs and employment histories, regardless of where the information is stored. This would make it easier to identify suitable opportunities, design personalised activation pathways and avoid repeated assessments or gaps in support when individuals move between institutions. Employers would also benefit from more complete and consistent candidate information, clearer vacancy classifications and smoother referral routes across regions.

2.3.3. Data infrastructure in Belgium is strong, but fragmented local implementation and regional differences create challenges for data harmonisation and consistent records

Belgium's data ecosystem relevant to the employment pathways of MIS beneficiaries is built around decentralised administrative registers, interconnected through the BCSS. CPAS/OCMW maintain beneficiary records covering personal and household characteristics, income sources, integration pathways, competences and participation in Article 60 employment contracts. While these systems follow federal policy guidelines, differences in local IT systems and data-entry practices affect data consistency across municipalities. To support harmonisation, the federal SPP IS introduced the shared Nova PRIMA/Nova+ platform for processing MIS applications, although its adoption remains optional and is more common among smaller municipalities (Primabook, 2025^[12]).

Regional PES (VDAB, Forem, Actiris, ADG) collect well-structured data on jobseekers, including skills, qualifications, work experience, language proficiency, job preferences and employability constraints. Nevertheless, differences in registration systems and workflows across regions can present challenges for cross-regional comparisons and co-ordinated service delivery (OECD, 2023^[13]). In parallel, the National Employment Office (*Office National de l'Emploi* – ONEM / *Rijksdienst voor Arbeidsvoorziening* – RVA) manages data on unemployment spells and ALMP participation, while ONSS/RSZ oversees key employment registers such as DIMONA and DmfA, providing detailed information on employment contracts and earnings respectively. These data are further integrated by Sigedis, which maintains longitudinal career records across social insurance schemes. For MIS beneficiaries engaged in public work schemes through Article 60 contracts, work experience data is recorded in the PRIMAWeb system, operated by the federal SPP IS.

ONSS/RSZ also maintains comprehensive records on all employers and employment contracts in Belgium. At the same time, regional PES systematically record vacancy and employer data, including information on employer participation in ALMPs, placements under Article 60/61 and partnerships supporting the labour market integration of MIS beneficiaries. Although vacancy databases remain regional, an inter-regional exchange agreement enables vacancies to be shared across regions.

Overall, Belgium benefits from rich and high-quality administrative data, supported by strong digital infrastructure and secure interinstitutional data-sharing mechanisms. However, important limitations remain. The optional adoption of shared municipal systems results in fragmented CPAS/OCMW records, while employability barriers and soft skills are often captured as unstructured free text rather than through standardised classifications. Differences in data collection practices, profiling frameworks and IT systems across regions also create interoperability and harmonisation challenges for nationwide digital solutions. In addition, some information relevant to the employment trajectories of MIS beneficiaries is not systematically shared across institutions, limiting the potential for integrated and data-driven matching and career support tools.

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Notes

¹ Households with hosted members, households with unprotected children, the homeless and single-parent families submit applications exclusively to the municipalities and Community Centres.

² Accountants may be privately hired to file applications on behalf of MIS applicants for a fee, but they cannot make changes in the system.

³ From November 2018 onwards, beneficiary households have been required to ensure that all minor children are enrolled in school when applying to MIS to help prevent school dropout (Government Gazette B 2281/15.6.2018).

⁴ Beneficiaries can also be referred to formal educational pathways, such as enrolment in evening lower high schools or second-chance schools (Government Gazette B 3359/28.7.2021).

⁵ DYPA is currently exploring the adoption of a more advanced profiling tool, in line with practices used by other EU and OECD PES. However, the plans for the future design of this tool have not yet been finalised. A recent OECD project with DYPA – designed to strengthen support to vulnerable clients via modern digital tools and supplementary services –, has developed a concept for a new digital tool to identify clients requiring intensive assistance (OECD, 2026^[21]).

⁶ Plans are already in place to develop a successor to *Daphne*, with the aim being to develop and implement a more sophisticated AI chatbot that will act as a digital employment counsellor. While the exact details are yet to be finalised, the aim is to implement a tool that will provide more personalised and tailored information and engagement with jobseekers on the services, measures and unemployment benefits available to them – including tailored recommendations for suitable training options (Brioscú et al., 2024^[9]).

⁷ The app is currently available covering positions in the tourism and catering sectors, with plans for future expansion to other sectors.

⁸ A detailed analysis of the main data registers, underlying data architecture, and available datasets and variables related to the MIS scheme in Greece is available in the relevant output published on the [project's webpage](#) (Output 2).

⁹ Eligibility for the MIS is means-tested and takes into account applicants' income, assets, household composition, residency status, and willingness to engage in an individualised integration plan. Claimants must first exhaust other social security entitlements and demonstrate readiness to work, unless exempted for health or social reasons.

¹⁰ Claimants can submit an appeal should they disagree with the decision. If the CPAS Council's decision is positive, the beneficiary is asked to sign an individualised social integration plan outlining mutual obligations and the necessary next steps.

¹¹ Within two weeks from launch, the tool attracted 10 000 users, user input time was reduced by 80%, the number of questions was cut in half, and the accuracy of recommendations was significantly improved.

3

MIS beneficiaries transition into paid employment more slowly and at lower rates than other jobseekers

Leveraging administrative data, this chapter examines the profiles of MIS beneficiaries, their registration patterns with Public Employment Services (PES), their transitions into the labour market, as well as the jobs they enter. In Greece, around two in ten MIS beneficiaries are already employed when registering with the scheme, but their income remains below the eligibility threshold. They usually face difficulties transitioning into employment, often ending up in jobs different from those initially sought, and are more likely to be part-time or shift based. In Belgium, more than half remain on benefits one year after registration, while only a small share transition into regular employment. Among MIS beneficiaries who find work, employment is concentrated in low-skilled service and manual occupations. Despite the differences between the two countries, digital matching tools should flexibly connect MIS beneficiaries to a wide range of job with nonetheless offer promising employment prospects.

3.1. Introduction

Creating pathways into employment for MIS beneficiaries is crucial to ensure sustainable economic and social integration. The European Pillar of Social Rights calls on Member States to combine adequate income support with inclusive labour market measures to guarantee the active inclusion of people excluded from the labour market. In both Greece and Belgium, activation measures play an important role in the overall support provided to MIS beneficiaries. However, compared to other jobseekers, the labour market integration of MIS beneficiaries is particularly challenging due to the multiple and complex barriers they face.

This chapter leverages data from the registers described in Chapter 2 for the two countries to investigate the employability of MIS beneficiaries, their profiles and the barriers they face, the extent to which they register with the PES for job-search support, and, if they enter the labour market, the types of jobs and employers they access. Together with the data analysis in Chapter 4, which takes a more comprehensive view of career pathways, including participation in ALMPs, the findings discussed in this chapter have implications for the development of the concept for digital tools to improve job matching and career progression of MIS beneficiaries in both countries (described in detail in Chapter 5).

This chapter is structured as follows: Sections 3.2 and 3.3 present the analysis results based on the Greek and Belgian data respectively. Section 3.4 concludes by summarising the key assessments for each country.

3.2. Minimum income scheme beneficiaries in Greece

The objective of this section is to empirically investigate the profile of MIS beneficiaries and their pathways into employment. Section 3.2.1 introduces the data used for the analysis and the steps involved in data preparation. Section 3.2.2 presents the characteristics of MIS households and individual beneficiaries, focussing on factors related to their employability, their registration patterns with DYPA, and additional information collected by DYPA upon registration, distinguishing GMI jobseekers from other jobseekers, including other vulnerable groups. Section 3.2.3 analyses the types of employment contracts held by GMI beneficiaries when they enter the labour market, considering the characteristics of both the jobs they take up and the employers who hire them.

3.2.1. *The analysis draws on administrative data from three registers*

The analysis in this report draws on administrative data from three sources: the GMI platform, the DYPA register of jobseekers, and the ERGANI employment register. The GMI platform provides detailed data on household composition and demographics, DYPA data contain information on employability, and ERGANI records employment relationships. Linking these registers through a pseudonymised personal identifier, which protect individual privacy, enables a comprehensive analysis of the labour market situation of GMI beneficiaries. While the three registers are described in detail in Chapter 2, this section outlines the data preparation process and the samples used for the analysis.

Data from the GMI platform include all successful applications¹ from the introduction of the GMI system in February 2017 until December 2024. Generally, GMI applications need to be renewed every six months and are submitted at the household level, meaning that each application contains information on the main applicant as well as on all other household members. For household members without a tax identification number (AFM ID) – mostly children – only their number is reported in each application, with no additional information.

The preparation and cleaning of the GMI data involved two main steps. First, a small number of duplicate observations (defined as cases with the same pseudonymised ID and application date) were removed

(0.01% of the full sample). Many of these cases involved minors who were registered with the same pseudonymised ID as the main applicant. In such cases, only the record of the main applicant was retained. In cases where two registrations for the same individual had the same start date but different end dates, the record with the latest end date was kept. Second, adjacent GMI applications – that is, applications starting less than one month after the end of the previous application – were merged into a single continuous GMI spell. In addition, each application requires applicants to provide a range of information. Because some of this information may change over time (e.g. employment status, earnings), only the information from the first application in the spell was retained when constructing GMI spells. The resulting dataset uses the GMI spell (rather than an individual application) as the unit of observation and contains approximately 2.2 million spells and 1 million distinct individuals.

Data from DYPA cover all jobseekers who registered with DYPA for at least one day between February 2017 and January 2025, regardless of whether they received the GMI. The registration data contained a very small share of duplicates with identical pseudonymised ID and registration date (0.15%). In such cases, the record containing the most complete information was retained or, if the amount of information was identical, the record with the earliest start date was kept. In the relatively rare cases (1.14%) where a registration ended due to either the merging of the registration card or failure to renew the card, and a new registration began within one day, these consecutive registrations were merged into a single continuous unemployment spell. The resulting dataset contains detailed information on approximately 3 million unique individuals and more than 15 million unemployment spells.

Finally, data from the ERGANI employment register cover all individuals who appear in either the GMI or DYPA datasets (or both). They include records of hirings, dismissals, and contract changes for individuals in salaried employment in Greece between March 2013 (the introduction of ERGANI) and December 2024. In addition, ERGANI contains information from the annual census of employment in firms. This information was used to construct employment spells for each worker, with a spell defined as a unique combination of pseudonymised ID, employer ID, and start date. The final dataset comprises 26.4 million employment spells of approximately 2.6 million individuals. While ERGANI captures employment in some active labour market policies (ALMPs), such as wage subsidies and public works, it does not include self-employment or public sector employment. The absence of data on the self-employed – estimated to account for more than 30% of total employment in Greece, well above the OECD average (OECD, 2024^[11]) – is an important limitation. An additional limitation of the employment data is that they do not capture employment in the informal sector.

In this section, different samples are used depending on the specific question analysed:

- Section 3.2.2 uses two samples. The first is a snapshot of all households and individuals aged 18-64 with an active GMI spell in December 2024, providing a profile of recent GMI beneficiaries in Greece. The second consists of all DYPA unemployment spells starting between the national roll-out of the GMI on 1 February 2017 and 31 December 2024. Linking these unemployment spells with data from the GMI platform and ERGANI allows comparison of the characteristics of these spells across three main groups of jobseekers: GMI beneficiaries registered with DYPA, vulnerable jobseekers who are not GMI beneficiaries, and all other jobseekers. A jobseeker in the DYPA data is identified as a GMI beneficiary if the registered unemployment spell overlaps, at least in part, with a GMI spell.
- Sections 3.2.3 and 3.2.4 use a sample of all employment spells in the ERGANI data starting between the national rollout of the GMI on 1 February 2017 and 31 December 2024. These data are used to examine the transitions of GMI beneficiaries and other jobseekers into the labour market and to assess the characteristics of these employment spells, both in terms of the employers hiring these jobseekers and the type of jobs.

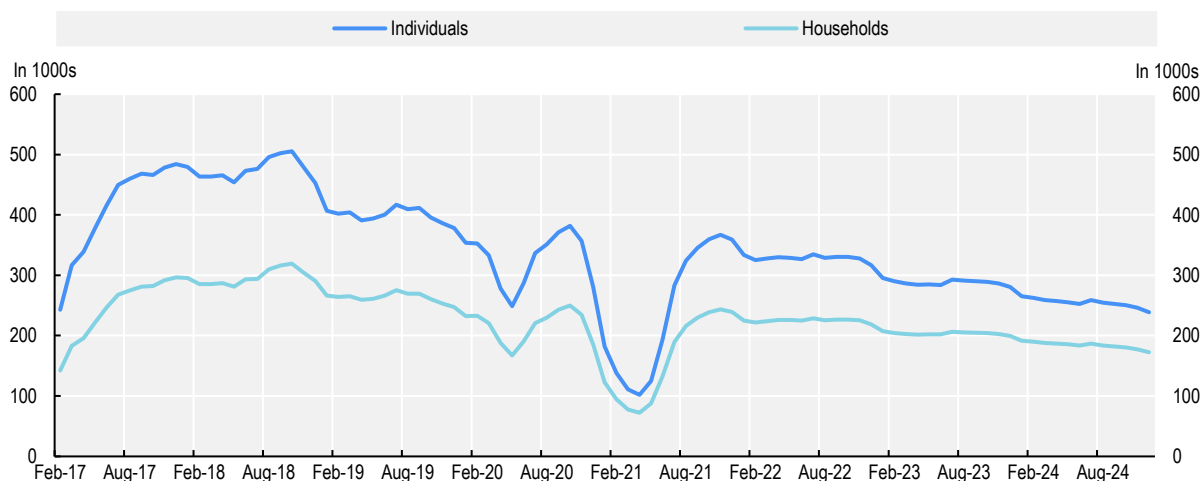
3.2.2. Households and individual beneficiaries of the GMI are a heterogeneous group

GMI beneficiaries often live in single-adult households

As the GMI is granted to households rather than individuals, each application contains information on all household members, not only the main applicant. Since the introduction of the GMI scheme, the number of beneficiaries – both individuals and households – peaked in the second half of 2018 and has declined steadily thereafter (Figure 3.1). Between February and April 2021, the number of applications dropped sharply due to the protection measures against the spread of coronavirus. These measures extended the validity of all GMI applications due for renewal automatically by three months.² In the most recent month available in the data (December 2024), approximately 172 000 households and 240 000 individuals received GMI.

Figure 3.1. The number of applications has steadily decreased since the introduction of the GMI

Number of individuals and households included in applications for the GMI, Feb. 2017 to Dec. 2024



Note: All applications expiring between February and April 2021 were automatically extended by three months as part of the protective measures against the spread of the coronavirus.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform.

StatLink  <https://stat.link/pi4fv2>

Both household composition and characteristics, as well as the level of benefit receipt, can significantly influence the labour market participation decisions of GMI beneficiaries and thus provide insights into their employability. For example, households with children may have reduced capacity to take up employment due to caring responsibilities, while high levels of benefit receipt could reduce the incentive to seek employment if not accompanied by activation requirements. In the sample of households with an active GMI application in December 2024, only around 16% were either a single adult with at least one child or an adult with a spouse and one or more children, and just 6.4% of all households were single-parent households (Table 3.1). In contrast, most GMI beneficiaries live in single-adult households and therefore do not appear to face care-related barriers to employment. The particularly high share of single-adult households was already noted in an earlier evaluation of the GMI scheme (Marini et al., 2019^[2]) and may reflect the design of the scheme, which assesses eligibility based on household rather than individual income and provides higher combined allowances to two single adults than to a two-person household.

With respect to benefit levels, the average monthly allowance is EUR 231.90, ranging from a minimum of EUR 10 to a maximum of EUR 972, with the amount varying as a function of household composition. This

allowance is well below the statutory minimum wage of EUR 830 (as of December 2024) and is insufficient to secure subsistence on its own. Indeed, most households (83.2%) also received support from the Fund for European Aid to the Most Deprived (FEAD). This suggests that employment remains necessary to complement the GMI and ensure an adequate level of income.

Table 3.1. GMI beneficiaries live mostly alone

Characteristics of households with an active GMI application in December 2024

	GMI households
Average monthly allowance	EUR 231.90 (min: EUR 10; max: EUR 972)
Share of FEAD beneficiaries	83.1%
Household composition	
Single adult	63.8%
Adult with spouse	11.5%
Adult with guest	2.7%
Adult with child	9.4%
Adult with spouse and child	6.9%
Other	5.7%
Single-parent household	6.4%
Housing situation	
Owner	43.2%
Rent	38.5%
Rent-free accommodation	13.6%
Homeless	4.7%
Number of households	172 584

Note: The sample includes households with an active GMI spell in December 2024.

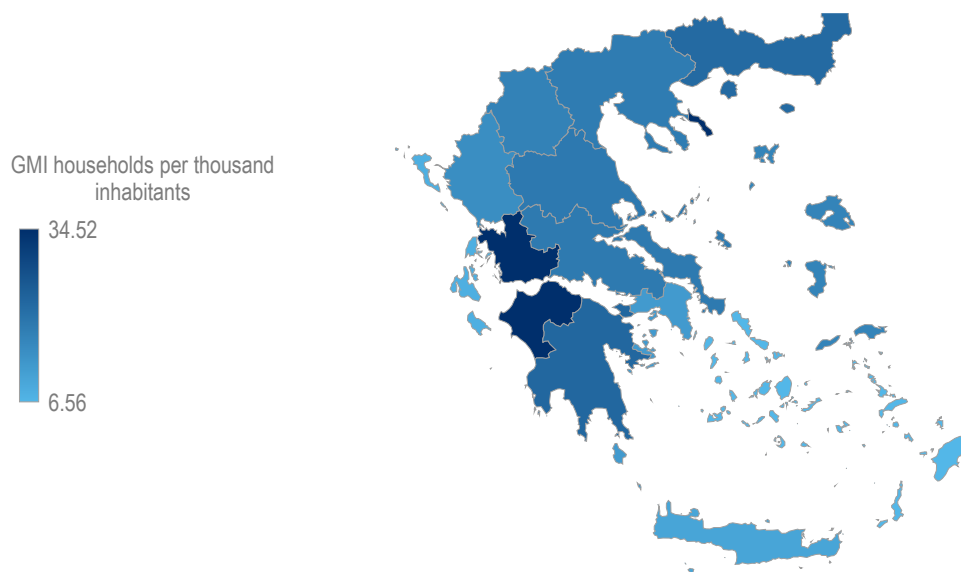
Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform.

StatLink  <https://stat.link/uc0ty8>

In terms of geographical distribution of GMI, roughly half of the households are in the Attica and Central Macedonia regions, mirroring population density in these regions. However, the highest density of GMI beneficiaries is found in Western Greece (Figure 3.2).

Figure 3.2. Western Greece has the highest incidence of GMI beneficiaries

Number of GMI households per thousand inhabitants, 2024



Note: Number of GMI households with an active GMI application in December 2024 per thousand inhabitants. Population data from Eurostat on total population by NUTS 2 region on 1 January 2024.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and Eurostat.

StatLink  <https://stat.link/v5c9ow>

Women, Greek nationals and individuals aged over 50 are overrepresented among GMI beneficiaries

While analysing household characteristics provides initial information on the potential barriers to employment that GMI beneficiaries might face, more granular data on individual characteristics are needed to gain deeper insights into their labour supply.

Overall, GMI beneficiaries are more often women, Greek nationals, and aged over 50 (Figure 3.3). The average duration of a GMI spell (with consecutive applications counted as a single spell) is 26 months. At the time of their first GMI application, most beneficiaries (73.9%) declare themselves unemployed, while only 20% report being employed. The remaining beneficiaries are students, individuals not able to work, children, or elderly individuals. As employment status must be reported each time the GMI application is renewed, it is informative to examine the share of applicants who ever reported being employed within a spell. This share, at 25.1%, is slightly higher than the share reporting employment in their first application, indicating that at least some beneficiaries who were not employed at registration entered employment during the GMI spell. Importantly, this shows that while most GMI beneficiaries are unemployed, a non-negligible share is actually employed or become employed during their GMI spell. One possible reason is that, despite being in employment, the household income in the six months preceding the application was below the GMI eligibility threshold.

Analysing the profile of GMI beneficiaries who were employed at least once during their GMI spell (defined as consecutive applications to the scheme) and comparing it with that of beneficiaries who never reported being employed in any application within the spell reveals notable differences between the two groups (Annex Table 3.A.1. in Annex 3.A). Unsurprisingly, beneficiaries with a disability (i.e. reporting a disability degree between 1% and 100%) are far less likely to be among those employed at least once during the

spell. In contrast, men, beneficiaries aged 30 to 50, those with only compulsory education, and non-Greek nationals are more likely employed.

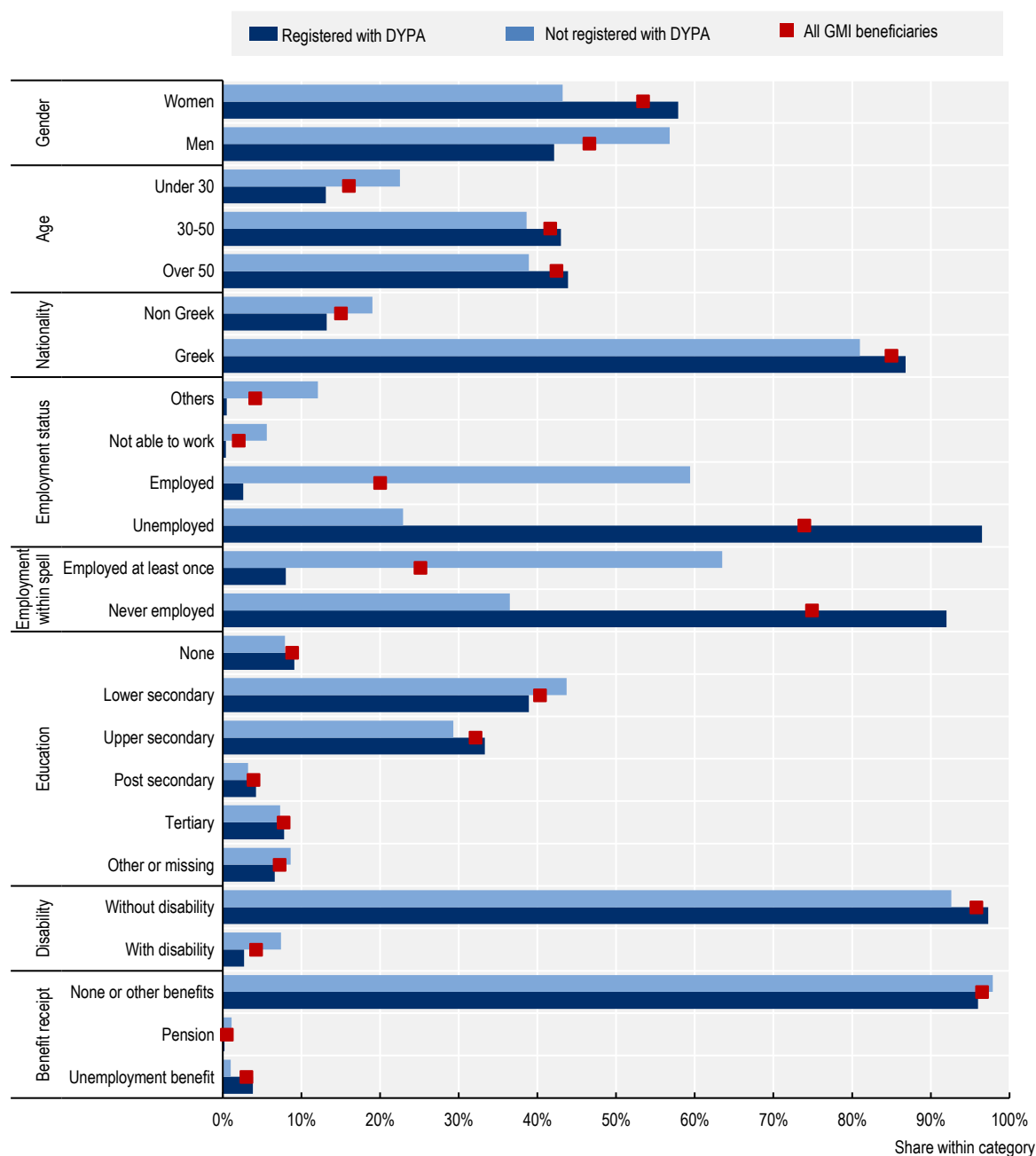
Multiple factors can affect the employability of GMI beneficiaries. Their educational attainment is skewed towards the lower end of the distribution, with 49.1% having completed less than upper secondary education, compared to 19.7% of the Greek population aged 25-64 (OECD, 2023^[3]). This indicates that, on average, GMI beneficiaries have lower educational attainment than the general population. Disability is another factor influencing employability. At registration, individuals with disabilities are required to submit a certificate specifying their degree of disability. While the share of GMI beneficiaries with disabilities is relatively low (4.2%), their average degree of disability is high, at 71.8%. However, this is not surprising given that a certified disability degree of 67% is required to qualify for disability benefits (European Commission, 2025^[4]). Indeed, data from the GMI platform show a clear spike in certified disability degrees at exactly 67%. Finally, the receipt of other pensions or benefits may also affect employability and willingness to enter the labour market. GMI data show that only a small fraction of beneficiaries receive additional unemployment or pension allowances in addition to the GMI allowance.

Since August 2018, as part of the third pillar of the GMI (activation), beneficiaries who are able to work are required to register with DYPA in order to continue receiving the GMI. This requirement applies to individuals aged 18-65 who are not in employment and excludes certain groups, such as people with disabilities, full-time students, apprentices in vocational schools, and participants in ALMPs without an employment relationship. Registration with DYPA is a key measure to promote the labour market integration of GMI beneficiaries, as it gives them access to a range of employment services – from counselling to participation in ALMPs such as training, public works, and wage subsidies – designed to support their transition into employment.

In the sample considered (active spells in December 2024 of individuals aged 18-64), about two in three GMI beneficiaries are registered with DYPA and therefore have access to the activation measures of the public employment services. While some beneficiaries not registered with DYPA may be recent applicants who have not yet registered, others may belong to one of the categories mentioned above that are exempt from the registration requirement. Figure 3.3 shows that people with disabilities and those who declare being employed at the time of their first GMI application are underrepresented among those registered with DYPA compared to their share among all GMI beneficiaries, reflecting the fact that they are generally not required to register. Importantly, this indicates that activation measures are more strongly targeted towards unemployed GMI beneficiaries and less so towards those who are employed, even though the latter could also benefit from support to move into better jobs. Figure 3.3 also shows that some groups of GMI beneficiaries who tend to be more employable, such as those with upper secondary education and Greek nationals with a likely better Greek language skills and country-specific human capital, are also more likely to register with DYPA. However, it is also important to note that GMI beneficiaries registered with DYPA tend to have longer GMI spells than those who are not registered (28 months compared to 21 months).

Figure 3.3. Employed GMI beneficiaries and those with only up to secondary education are less likely to register with DYPA

Distribution of selected characteristics among GMI beneficiaries, by registration status with DYPA, December 2024



Note: The sample includes individuals aged 18-64 with an active GMI spell in December 2024. Red squares show the share of people with the referred characteristics in the whole population of GMI beneficiaries. The dark blue bars show the share of people with the referred characteristics among GMI beneficiaries that are registered with DYPA. The light blue bars show the share of people with the referred characteristics among GMI beneficiaries that are not registered with DYPA. Shares are calculated within each of the eight broad categories shown in the figure. If a category of GMI beneficiaries registered with DYPA were represented in proportion to their share among all GMI beneficiaries, the length of the dark blue bars would coincide with the red squares.

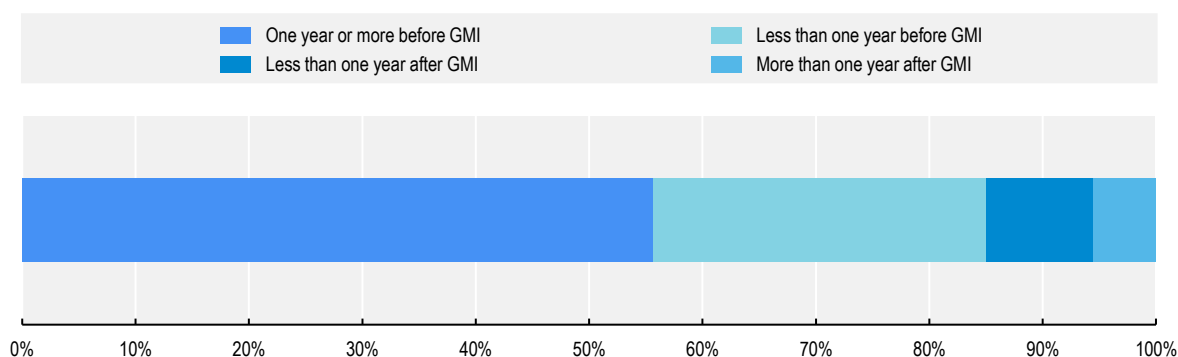
Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek Public Employment Services (DYPA).

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Many jobseekers may turn to the GMI after unsuccessful job search and potentially after exhausting their entitlement to unemployment benefits. Approximately 85% of all GMI beneficiaries registering with DYPA, register already before applying for the GMI, and more than 55% had registered over a year earlier (Figure 3.4). This group of jobseekers likely includes many long-term unemployed who require intensive support to re-enter employment. In contrast, only 15% of GMI beneficiaries register with DYPA after applying for the GMI.

Figure 3.4. A large share of beneficiaries register with DYPA before applying for the GMI

Time between registration with DYPA and application for the GMI, December 2024



Note: The sample includes individuals with an active GMI spell in December 2024 who have registered with DYPA.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek Public Employment Services (DYPA).

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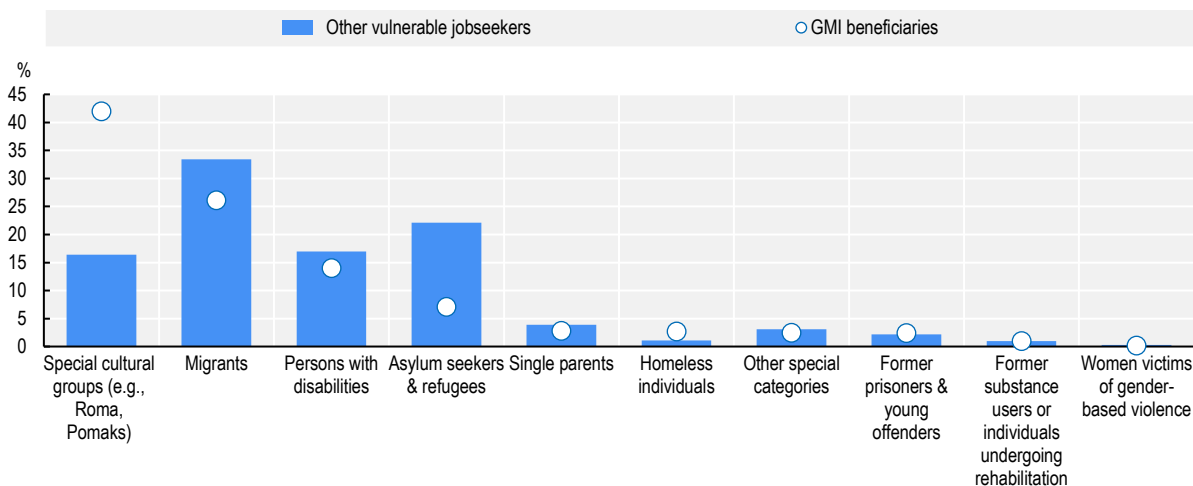
GMI beneficiaries are more likely than other jobseekers to belong to a vulnerable group and to seek employment in low-skilled occupations

Considering all registrations of individuals aged 18-64 with DYPA between 1 February 2017 and 31 December 2024, approximately 21% were GMI beneficiaries.³ When registering with DYPA, extensive individual information on jobseekers is collected, such as the occupation they are seeking and whether they belong to a vulnerable or special social group.⁴ Vulnerable groups include jobseekers whose access to employment is limited by physical, mental, or behavioural factors, specifically persons with disabilities, former addicts, young offenders, and former prisoners. Special social groups include jobseekers who face labour market difficulties due to personal or social circumstances, such as immigrants, refugees, asylum seekers, single parents, victims of domestic violence, homeless individuals, and people from marginalised cultural groups (such as Roma or Pomaks). They also include other specific groups, such as victims of human trafficking, transgender individuals, and young adults exiting child protection facilities.

About 12% of GMI beneficiaries registered with DYPA report belonging to a special category of vulnerable jobseekers, compared to only 5% of all jobseekers registering with DYPA. These groups may face particular barriers to employment – for example, due to limited language skills (migrants and asylum seekers), cultural or social stigma, or specific constraints such as caring responsibilities for single parents. The most common vulnerability categories among GMI beneficiaries are special social groups such as Roma or Pomaks, migrants, persons with disabilities, and asylum seekers or refugees (Figure 3.5). Less common are categories such as former prisoners and young offenders, homeless individuals (although their share is higher among GMI beneficiaries than among other vulnerable jobseekers), single parents, former substance users and individuals undergoing rehabilitation, and female victims of gender-based violence.

Figure 3.5. Vulnerable GMI beneficiaries registering with DYPA are often from special cultural groups

Share of GMI beneficiaries and other jobseekers in different vulnerable categories, 1 Feb. 2017 and 31 Dec. 2024



Note: The sample includes registrations with DYPA between 1 Feb. 2017 and 31 Dec. 2024 in which jobseekers reported being in at least one vulnerability group. Of these registrations, 21.1% are overlapping with a GMI spell. Jobseekers may report multiple special categories.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek public employment service (DYPA).

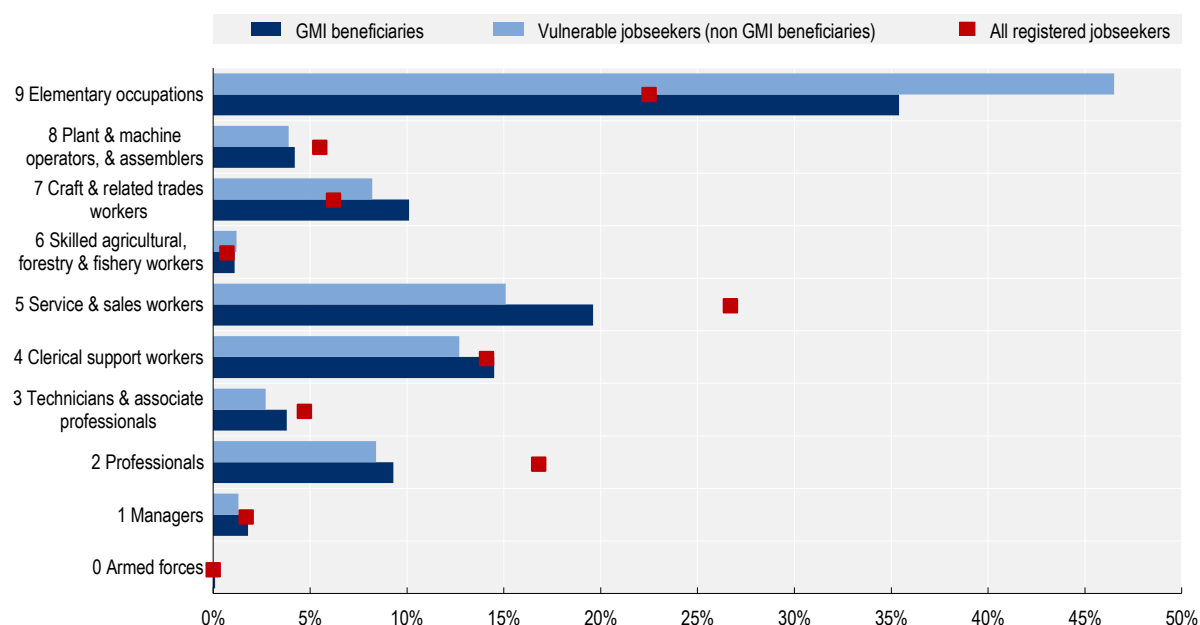
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GMI beneficiaries looking for a job with the help of DYPA are more likely to look for low-skilled jobs than other jobseekers registered with DYPA (Figure 3.6).⁵ In particular, looking for jobs on elementary occupations and as craft and related trades workers is more common among GMI beneficiaries compared to other jobseekers, while aiming to be a professional or a services and sales worker much less common. Nevertheless, vulnerable jobseekers who are not GMI beneficiaries focus on low-skilled occupations even more than GMI beneficiaries.

GMI beneficiaries exit unemployment to employment at lower rates than other jobseekers, including other vulnerable jobseekers. Twelve months after registering with DYPA, roughly 60% of all jobseekers move into employment, compared to just under 20% of GMI beneficiaries and 35% of other vulnerable jobseekers. This gap may be partly explained by the fact that some individuals register for the GMI after having already been unemployed for some time, and the longer jobseekers remain unemployed, the more difficult it becomes to re-enter employment. Moreover, Annex Table 3.A.2. in Annex 3.A shows that certain groups of jobseekers such as older individuals and those with lower levels of education who typically face higher barriers to employment are overrepresented among GMI beneficiaries.

Figure 3.6. GMI beneficiaries look for employment in low-skilled occupations more often than other jobseekers

Vulnerable jobseekers, GMI beneficiaries and all registered jobseekers, by occupation sought



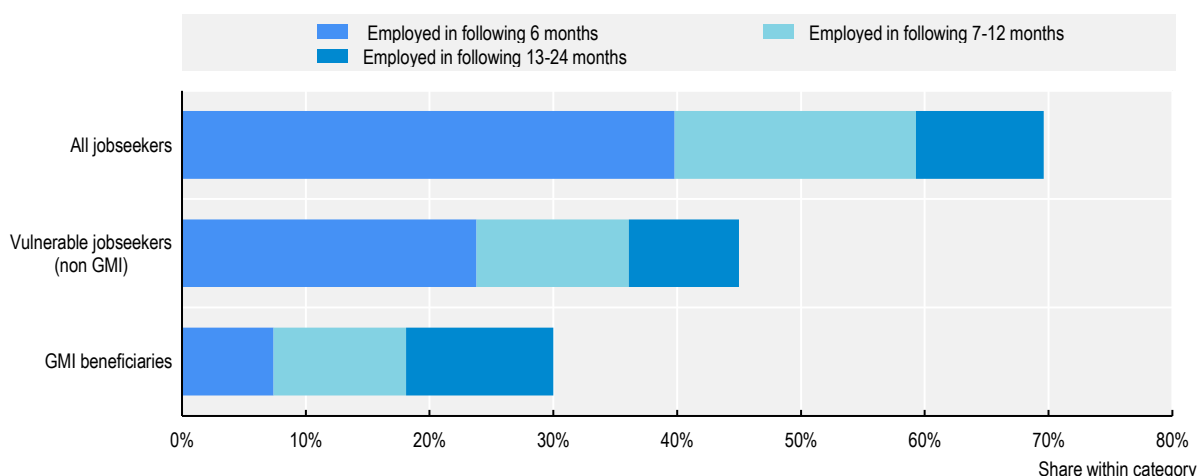
Note: The sample includes registrations with DYPA between 1 Feb. 2017 and 31 Dec. 2024. One-digit ISCO-08 occupations refer to the occupations sought by jobseekers.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek public employment service (DYPA).

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Figure 3.7. GMI beneficiaries exit to employment at lower rates than other jobseekers

Rates of exit to employment after registration with DYPA by jobseeker type, jobseekers registered with DYPA between Feb. 2017 to Dec. 2022



Note: Data includes registrations with DYPA between 1 February 2017 and 31 December 2022.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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To improve the matching of GMI beneficiaries with labour demand, it is informative to analyse how demand is expected to evolve across occupations. Skills forecasts for Greece suggest that labour demand will be strongest in the two ISCO-08 major groups “Professionals” and “Service and Sales Workers” (CEDEFOP, 2025^[5]). These occupations, along with “Clerical Support Workers” and “Plant and Machine Operators and Assemblers”, are projected to experience a net increase in the number of jobs until 2035. Other occupations are expected to see a small to moderate net decline in the number of jobs, with “Skilled Agricultural, Forestry and Fishery Workers” being particularly negatively affected. In “Elementary Occupations” – where both GMI beneficiaries and other vulnerable jobseekers are more likely to seek employment – labour demand is modest, but the overall reduction in jobs is also expected to be small. From a job matching perspective, this implies that while GMI beneficiaries are somewhat more likely than other vulnerable jobseekers to seek employment in occupations with sustained labour demand, they remain underrepresented among jobseekers targeting occupations in high demand. Therefore, for some GMI beneficiaries, re-skilling or upskilling may be required to better align with future labour market needs.

3.2.3. GMI beneficiaries are more often employed by small employers and in the accommodation and food service sector

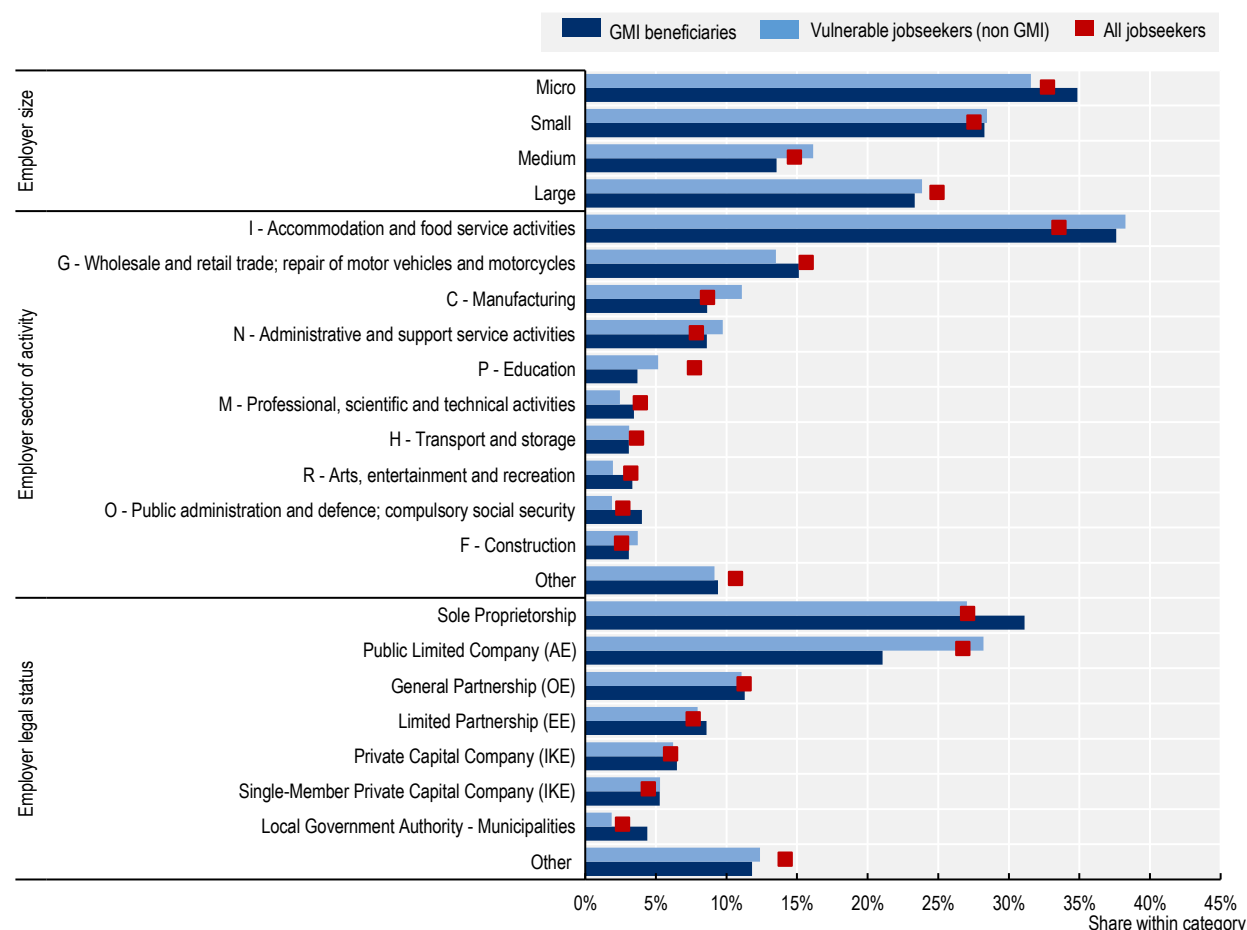
This and the next section focus on the employment relationships of GMI beneficiaries when they enter the labour market. Specifically, this section analyses the profile of employers hiring individuals who are either current or former beneficiaries of the GMI. The aim is to identify categories of employers that are more likely to hire GMI beneficiaries. From a job matching perspective, this information is useful as it highlights the types of employers whose vacancies could be prioritised for matching. It is important to note, however, that the analysis in this and the following section is based on realised employment matches, that is, instances where a GMI beneficiary was actually hired by an employer. Potential matches that could in theory occur but did not materialise (e.g. because the GMI beneficiary and the firm did not connect) are not captured. In addition, it is important to stress that these matches do not necessarily reflect high-quality or stable jobs, but they may still serve as a stepping stone into the labour market. Digital tools should therefore provide GMI beneficiaries with opportunities to progress towards better-quality jobs.

Figure 3.8 shows the distribution of employer characteristics across employment contracts started by GMI beneficiaries and other jobseekers. GMI beneficiaries are more often employed in micro and small firms and less frequently in medium-sized and large firms compared to the average jobseeker registered with DYPA. By sector of activity, both GMI and other vulnerable jobseekers are disproportionately employed in accommodation and food service activities – nearly 37% and 38% respectively, compared to around 33% for all jobseekers.

More generally, accommodation and food service activities account for a large fraction of all employment relationships entered by GMI beneficiaries and jobseekers registered with DYPA. Given that many jobseekers, including GMI beneficiaries, find employment in this industry, job-matching tools should ensure adequate coverage of vacancies in this sector, while also taking into account the quality of the employment opportunities offered. GMI beneficiaries are also slightly overrepresented in administrative and support service activities and in construction. In addition, they are more likely to be employed in public administration and defence; compulsory social security, possibly reflecting greater participation in public works compared to other jobseekers (Chapter 6 will provide a more detailed analysis of the participation of GMI beneficiaries in ALMPs to study this question). GMI beneficiaries are also more likely to be employed in sole proprietorships – businesses owned by a natural person – compared to other jobseekers, including vulnerable jobseekers. They are also more likely to be employed by local government authorities, such as municipalities, again possibly due to participation in public works programmes.

Figure 3.8. GMI beneficiaries are more often employed by micro and small employers and in the accommodation and food service industry

Distribution of employer characteristics for employment contracts by jobseeker type, Feb. 2017 to Dec. 2024



Note: Unit of analysis is the employment spell. Data include employment spells starting between 1 February 2017 and 31 December 2024. Employer size refers to the number of employees in the year the jobseeker was hired (i.e. at the start of each employment spell). Firm size categories follow the OECD/Eurostat standard: Micro (1-9 employees), Small (10-49), Medium (50-249), and Large (250 or more). Employer sector is classified at the NACE Level 1 (Section). Only sectors accounting for at least 3% of all employment spells are shown separately; all other sectors are grouped under "Other sectors". Legal type of employer is reported only for categories with at least 3% of employment spells; all other types are grouped under "Other legal forms."

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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3.2.4. GMI beneficiaries are more likely to work in part-time and shift jobs with lower hourly wages

This section discusses the characteristics of the jobs that GMI beneficiaries and registered jobseekers hold when entering employment. This analysis uses the employment contracts recorded in ERGANI between 1 February 2017 and 31 December 2024, distinguishing between those of GMI beneficiaries (i.e. contracts starting during or after a GMI spell) and those of other jobseekers registered with DYPA. When entering employment, GMI beneficiaries tend to earn less than other jobseekers, including vulnerable jobseekers (Table 3.2). Part of this earnings gap can be explained by differences in working hours: GMI beneficiaries

are less likely to work full-time (47% compared to 55% of all jobseekers) and work fewer hours per week on average (26.1 compared to 28.4). The distribution of contractual weekly hours across jobseeker types shows that these differences are largely driven by GMI beneficiaries working more often with contracts of fewer than 20 hours per week (Annex Figure 3.A.1 in Annex 3.A).

Table 3.2. GMI beneficiaries are more likely to enter part-time employment contracts with lower hourly wages

Shares and averages of job characteristics, by jobseeker type, Feb. 2017 to Dec. 2024

	GMI beneficiaries	Vulnerable jobseeker (non GMI)	Total
Employment conditions			
Hourly wages	EUR 5.3	EUR 5.5	EUR 5.7
Hours per week	EUR 26.1	EUR 29.8	EUR 28.4
Earnings	EUR 590.2	EUR 708.6	EUR 685.6
Employment type			
Full time	47%	58%	55%
Part time	45%	36%	37%
Rotating (shifts)	9%	6%	7%
Contract type			
Indefinite	60%	57%	54%
Definite	40%	43%	46%

Note: The unit of analysis is the employment spell. Data includes employment spells starting between 1 February 2017 and 31 December 2024. Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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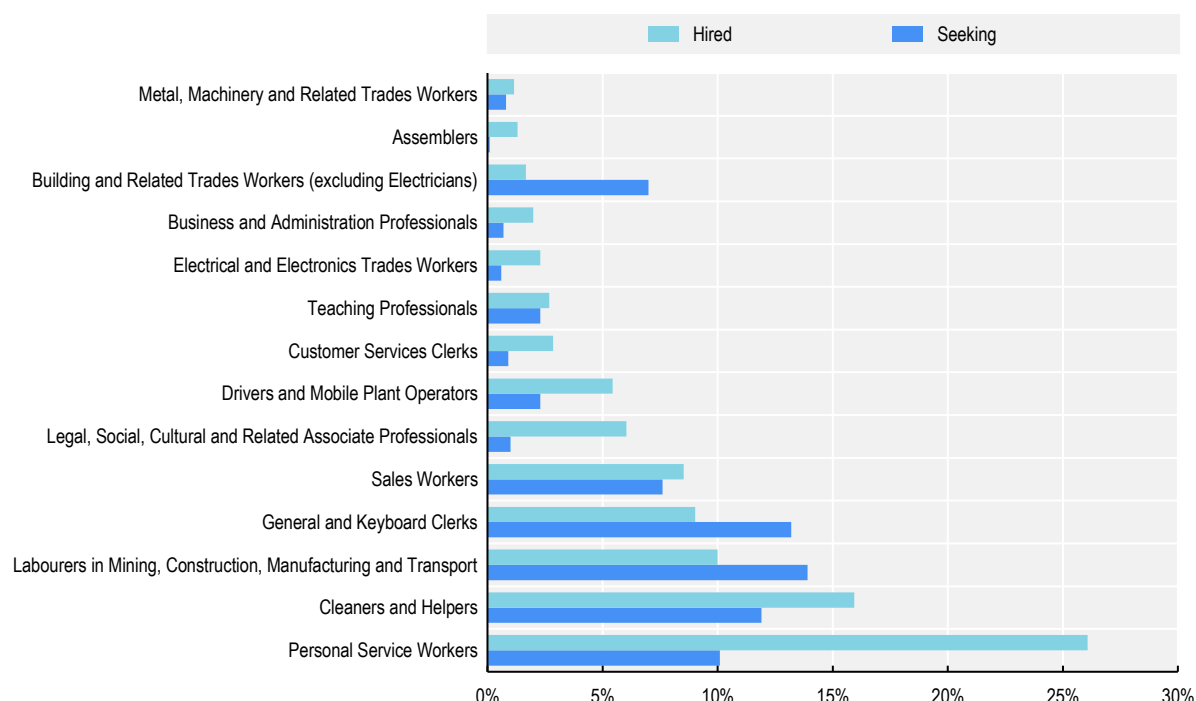
Although part-time work may be an intentional choice, making employment more accessible to individuals who cannot work full-time – for example, single parents with caring responsibilities or jobseekers with certain types of disability – it is important to note that these employment contracts are typically associated with lower hourly wages. Similarly, GMI beneficiaries also appear to be more likely than other jobseekers to enter shift work. While shift work can also be an informed and deliberate choice, it is often associated with higher health and safety risks (Saint-Martin, Inanc and Prinz, 2018^[6]).

Using linear regression can help identify which characteristics of employers and jobs are associated with better job matches. For this purpose, hourly wages are used as a measure of match quality.⁶ The results, reported in Annex Figure 3.A.2. in Annex 3.A, show that after controlling for industry and occupation, employment contracts in medium and large firms, as well as full-time contracts, are associated with higher hourly wages. This information could be incorporated into tools designed to improve the matching of GMI beneficiaries with labour demand, for example, by prioritising job matches with medium and large firms and with contracts offering full-time employment.

Additional characteristics of the employment contracts of GMI beneficiaries that can be examined using ERGANI data include the occupation. While the final part of Section 3.2.2 presented the occupations in which GMI beneficiaries registered with DYPA seek employment, ERGANI data make it possible to explore the occupations in which they actually find employment. Figure 3.9 shows these ISCO-08 two-digit occupations in which more than 1% of GMI beneficiaries are employed and compares the share of GMI beneficiaries finding employment in these occupations with the share seeking employment in these occupations when registering with DYPA.

Figure 3.9. Differences between occupations sought and occupations obtained by GMI applicants

Shares of total employment and unemployment spells, by ISCO-08 occupation, 2-digit level



Note: Occupations are classified according to the ISCO-08 at the 2-digit level. Data includes only occupations where GMI applicants account for more than 1% of employment spells. "Hired" refers to the distribution of occupations for which GMI applicants obtained a contract; the sample includes employment spells starting between 1 February 2017 and 31 December 2024. "Seeking" refers to the distribution of occupations sought by GMI applicants while registered as unemployed; the sample includes all unemployment spells recorded during the same period.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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Overall, there is a degree of mismatch between occupations that GMI beneficiaries target and obtain. Some occupations are sought by GMI applicants far more often than they result in hires, and vice versa. For example, more than one in four GMI beneficiaries find employment as personal service workers (that is, workers providing services related to, e.g. housekeeping, catering, and hospitality) while only one in ten actively seek employment in these occupations when registering with DYPA. In contrast, the shares of GMI beneficiaries seeking employment in building and related trades, general and keyboard clerks, and labourers in mining, construction, manufacturing, and transport are greater than the shares finding employment in these occupations.

The reasons for this mismatch can be multifaceted. For example, GMI beneficiaries formerly employed in construction, building, or mining may indicate these occupations when registering with DYPA. However, as shown in Annex Table 3.A.2. in Annex 3.A, GMI beneficiaries include a relatively high share of individuals aged over 50, who generally face greater barriers to employment, particularly in physically demanding occupations. Another reason may be that some GMI beneficiaries search for jobs in occupations (e.g. office clerks) for which they lack the necessary skills and competences.

These findings have two main implications for job matching. First, they highlight the need for flexible algorithms that match jobseekers not only to jobs within the same occupation but also across occupations that, while different, have overlapping skill requirements. Second, they suggest that some GMI beneficiaries may need to change occupations to find employment. Tools designed to match GMI

beneficiaries with labour demand should therefore account for potential jobs that could be attained with appropriate reskilling and upskilling through ALMPs.

3.3. Minimum income scheme beneficiaries in Belgium

This section examines the profile of Belgian minimum income scheme (*Revenu d'intégration /leefloon*) beneficiaries and the trajectories they follow into employment. This discussion on the Belgian system is organised into three main parts. Section 3.3.1 presents the profile of MIS beneficiaries, documenting trends over time and highlighting differences across regions, socio-demographic groups, and household types. Section 3.3.2 shifts the focus to employers, describing the industries and sectors in which beneficiaries who exit into work are most often employed, and how these patterns vary across regions and educational attainment. Section 3.3.3 then turns to the jobs themselves, examining the occupational composition of employment among MIS beneficiaries, and comparing their outcomes to those of unemployment benefit recipients. Together, these sections provide a comprehensive picture of who MIS beneficiaries are, where they find work, and the types of jobs they enter.

3.3.1. Data used and analytical approach

This analysis draws on aggregate tables produced from administrative data compiled by the Crossroads Bank for Social Security (CBSS). The focus is on individuals receiving the minimum income support *leefloon/revenu d'intégration* (RIS) and their subsequent transitions into employment or other benefit schemes (henceforth: MIS). To capture these trajectories, the CBSS generated detailed cross-tabulations that map the profiles and pathways of recipients by key characteristics such as region, education, age, household composition, migration background and gender.⁷ For those who moved into employment, the analysis also examines the industries in which they found jobs and compares their profiles to those who did not enter employment. These cross-tabulations were constructed using microdata from a range of sources, including local welfare offices (CPAS), regional Public Employment Services, and national-level registers such as the National Social Security Database (ONSS).⁸ The dataset covers all new entrants to minimum income support across all quarters from 2011 to 2020, ensuring sufficient sample sizes and protecting confidentiality. Outcomes are observed at two points following programme entry, after four quarters and after 12 quarters, allowing for an assessment of how recipients' situations evolve over time.

Complementary insights are drawn from secondary sources, including statistical reports from the Federal Public Service for Social Integration (SPP IS), regional monitoring reports, and previous analyses by the OECD and other research institutions.

3.3.2. The number of MIS beneficiaries has been rising, with stark regional differences

Number of beneficiaries in Belgium has been rising steadily

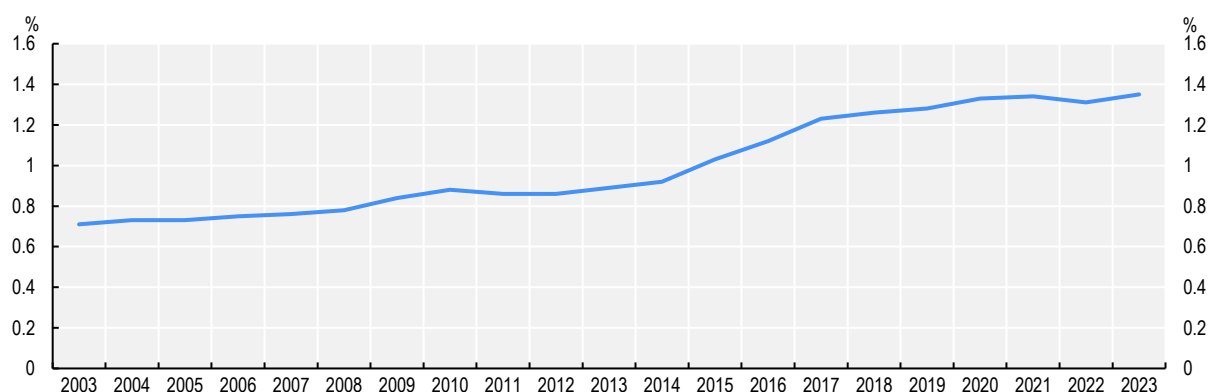
Belgium's minimum income scheme is a last-resort, means-tested benefit providing a financial safety net to individuals lacking sufficient resources. In contrast to Greece's GMI (granted at the household level), the Belgian MIS is legally an individual entitlement, embedded in the "right to social integration" framework (Law of 26 May 2002). In practice, a household's composition and income determine the benefit: cohabiting adults receive a lower amount per person than single adults, and a higher rate applies to single adults with dependent children (OECD, 2024^[7]). The minimum age for MIS is 18 (younger in special cases such as emancipated minors with children), and claimants must first exhaust other social protection rights (unemployment insurance, pensions, disability benefits, etc.).

Belgium's minimum income scheme has expanded over time, both in absolute and relative terms. The number of beneficiaries more than doubled between 2003 and 2023⁹ – from around 74 000 to 158 700 on

a monthly average in 2023 – with particularly sharp increases after 2015. Figure 3.10 shows that the share of the population receiving RSA/leefloon has also steadily increased, with 1.3% of the population receiving the benefit in 2023, the highest in recent history. Preliminary estimates from 2025 suggest the number of beneficiaries has increased slightly to 167 800 in January (POD Maatschappelijke Integratie, 2025^[8]). Reforms in 2015 that shortened the duration of youth unemployment benefits led many young people to apply for RIS, contributing to a surge in cases. At the start of 2024, approximately 1.6% of Belgium's population depended on a RIS or equivalent social assistance benefit.

Figure 3.10. The share of recipients of the minimum income scheme (MIS) has been on the rise

Share of the population receiving social assistance, 2003-2023



Source: Federaal Planbureau (2025^[9]), Leefloners (i05) [Indicator: Percentage of the Belgian population receiving social integration income], https://indicators.be/nl/i/G01_GMI/Leefloners.

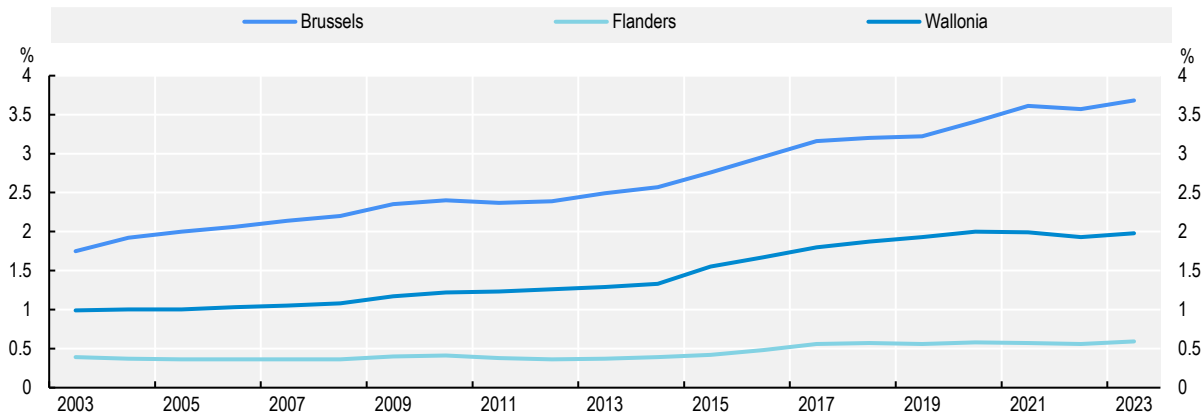
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There are strong regional variations in MIS receipt

The regional distribution of beneficiaries is very uneven and differences have increased over time: as of 2023, only 0.6% of residents in Flanders received MIS, compared to 2% in Wallonia and 3.7% in the Brussels-Capital Region (Figure 3.11). In absolute terms, nearly half of all beneficiaries live in Wallonia, about 30% in Brussels and 25% in Flanders. This reflects the overrepresentation of French-speaking regions among recipients, despite Flanders accounting for more than half of the national population. There are also strong local concentrations within regions. Larger cities and former industrial centres have the highest reciprocity rates of MIS. For example, in 2025, in the port city of Oostende (Flanders) about 2.7% of its inhabitants received the MIS and other urban centres like Gent and Charleroi had similarly high incidences. By contrast, some affluent and largely rural municipalities (e.g. in parts of Flemish Brabant or the South of Luxembourg province) record negligible numbers of MIS beneficiaries. The spatial pattern mirrors socio-economic conditions: areas with a legacy of industrial decline or higher poverty see greater reliance on minimum income schemes.

Figure 3.11. Growing disparities in beneficiary shares across regions

Share of the population receiving minimum income scheme (MIS), by region, 2003-2023



Source: Federaal Planbureau (2025^[9]), Leefloners (i05) [Indicator: Percentage of the Belgian population receiving social integration income], https://indicators.be/nl/i/G01_GMI/Leefloners.

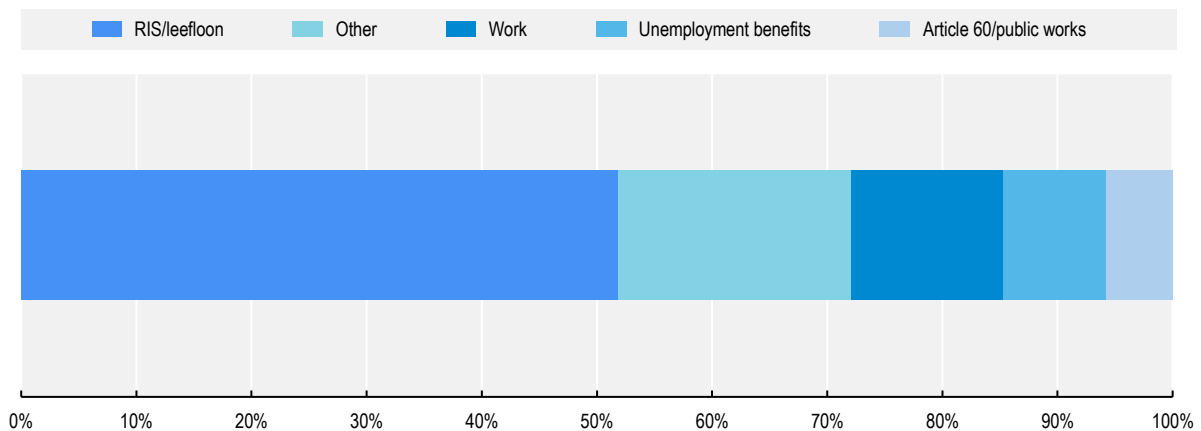
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Trajectories of MIS beneficiaries differ one year after registration

Just over half of new entrants to minimum income support are still receiving the benefit one year after registration, highlighting the persistence of reliance on the scheme for many recipients. Figure 3.12 presents the activity status of individuals 12 months after entering MIS between 2011 and 2020. Among those who exit MIS, about 13% secured employment in the regular labour market, while a further 6% participated in Article 60 public works schemes,¹⁰ together representing nearly one in five recipients making some form of transition into work. By contrast, 9% move onto unemployment benefits, suggesting that for many beneficiaries, MIS functions as a stepping stone within the broader social protection system rather than a direct bridge into sustainable employment. The remaining share either shift into other types of support or leave the register altogether, underscoring the diversity of pathways following an MIS spell.

Figure 3.12. Over half of new MIS entrants remain on the benefit one year after registering

Activity status of new minimum income scheme (MIS) spells, four quarters after registering, 2011-2020



Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

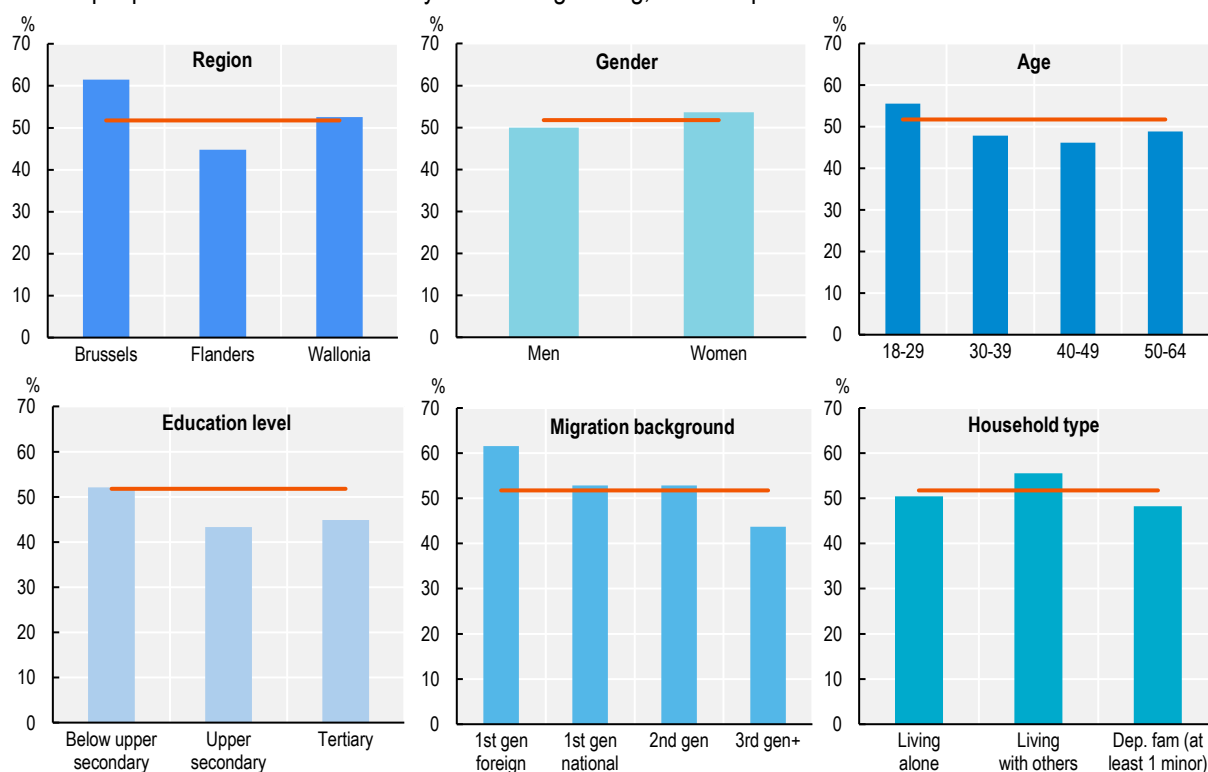
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Profiles of those who remain in MIS

Persistence in MIS after four quarters varies substantially across demographic groups. By region, recipients in Brussels (61.5%) and Wallonia (52.6%) remain on benefits at higher rates than the national average (51.8%), while those in Flanders (44.8%) exhibit lower persistence (Figure 3.13). Gender differences are limited, with women (53.7%) slightly more likely than men (50.0%) to continue receiving support one year after they started receiving the MIS. Educational attainment shows a clearer gradient with individuals with lower levels of education (ISCED 0-2, 52.1%) being more likely to remain on benefits than those with mid-level (ISCED 3-4, 43.3%) or higher qualifications (ISCED 5-8, 44.9%). Household composition is another key differentiator: recipients living with others display the highest persistence (55.5%), followed by those living alone (50.4%), while single parents with dependent children show lower persistence (46.2%). Migration background reveals notable contrasts: first-generation foreign-born recipients have the highest persistence (61.6%), well above the average, whereas native-born Belgians whose parents were also born with the Belgian citizenship (referred to as third-generation or later) are less likely to remain in the scheme (43.7%). Age differences are also evident: young adults aged 18-29 show the highest persistence (55.5%), while rates decline among those aged 30-39 (47.9%) and 40-49 (46.1%), before rising modestly again for recipients aged 50-64 (48.9%).

Figure 3.13. Persistence in the MIS differs across groups one year after registering

Share of people who remain in MIS one year after registering, all new spells between 2011-2020



MIS: Minimum income scheme.

Note: The **horizontal line** indicates the overall average. Migration background categories are defined using administrative data on country of birth and nationality of the individual and their parents. First-generation foreign-born refers to individuals born abroad with foreign nationality at birth. First-generation naturalised refers to those born abroad who later acquired Belgian nationality. Second generation refers to individuals born in Belgium with at least one foreign-born parent. Third generation or more refers to those born in Belgium to Belgian-born parents, often considered the “native” population in the statistics. Educational attainment is based on International Standard Classification for Education (ISCED) codes (0-2, 3-4 and 5-8 respectively).

Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

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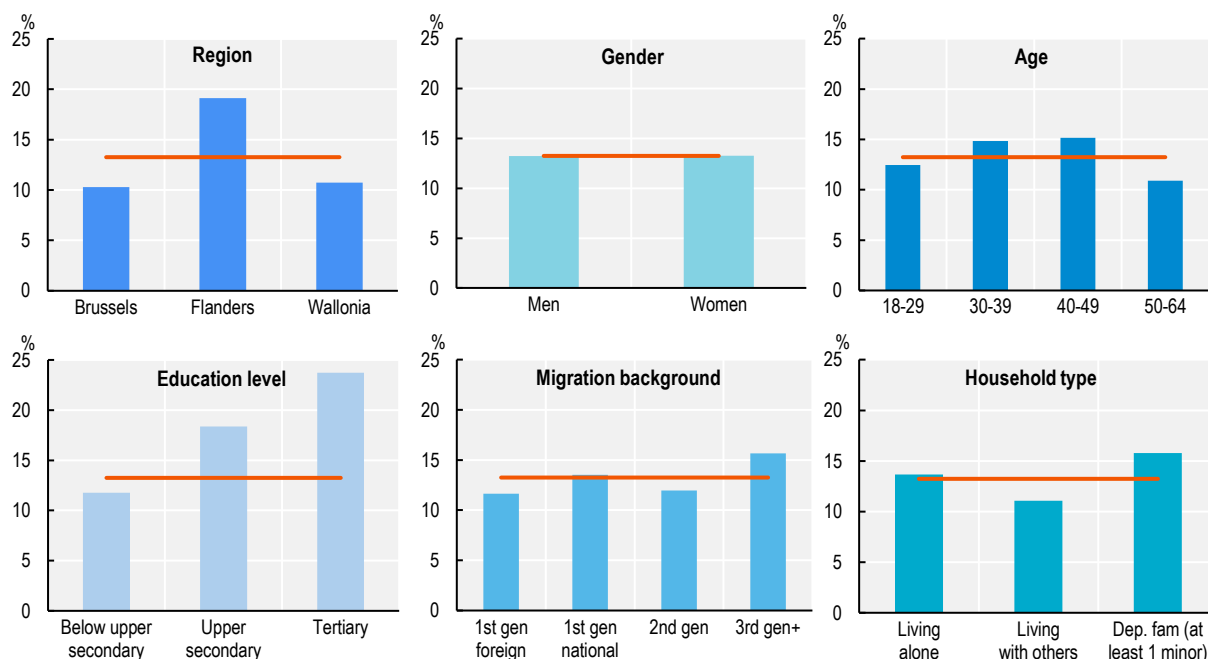
Profiles of those who transition into employment

Education, region, and household context are key determinants of successful labour market integration, while gender plays little role in the likelihood of finding employment (Figure 3.14).

Transitions from MIS into regular employment differ markedly across groups. On average, 13.2% of recipients find work in the regular labour market within a year of registering, but some groups perform well above or below this benchmark. Across regions, Flanders stands out with the highest integration into work (19.1%), while Brussels and Wallonia show considerably lower integration into the labour market (10.3% and 10.7% respectively). Educational attainment shows the expected effect on employment: almost one in four beneficiaries (23.7%) with higher qualifications (ISCED 5-8) secure work one year after registering, compared with 18.4% among those with mid-level education (ISCED 3-4) and only 11.8% among those with the lowest attainment (ISCED 1-2).

Figure 3.14. Employment outcomes vary mostly by region and education levels

Shares of former MIS spells (pooled 2011-2020) that are in formal employment 4 quarters after registering



MIS: Minimum income scheme.

Note: The **horizontal line** indicates the overall average. Migration background categories are defined using administrative data on country of birth and nationality of the individual and their parents. First-generation foreign-born refers to individuals born abroad with foreign nationality at birth. First-generation naturalised refers to those born abroad who later acquired Belgian nationality. Second generation refers to individuals born in Belgium with at least one foreign-born parent. Third generation or more refers to those born in Belgium to Belgian-born parents, often considered the “native” population in the statistics. Educational attainment is based on International Standard Classification for Education (ISCED) codes (0-2, 3-4 and 5-8 respectively).

Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

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Differences by household composition also emerge. Recipients with dependent children are more likely to transition into work (15.8%) than those living alone (13.7%) or with other adults (11.1%). Migration background shows a mixed pattern: Belgians whose parents were also born with the Belgian citizenship (referred to as third-generation or later) exceed the average (reaching 15.7%), whereas first- and second-generation migrants record lower rates of finding employment (11.6% and 12.0% respectively). Gender

differences are negligible, with men and women virtually identical. Age follows an inverted U-shape: transitions are weakest among the youngest (aged 18-29 years, at 12.4%) and oldest groups (aged 50-64, at 10.9%), while recipients aged 30-39 and 40-49 achieve higher rates of entry into work (14.9% and 15.2% respectively).

3.3.3. Employers who hire MIS beneficiaries are predominantly in the service sector

Service sectors as the main gateway to employment for MIS beneficiaries

MIS beneficiaries who find employment one year after exit were dispersed across a wide range of service-oriented sectors, with limited participation in traditional goods-producing activities (Figure 3.15). The largest shares were observed in “other services” (explained in detail below) (35.8%) and administrative and support services (31.2%), together accounting for more than two-thirds of all placements. Employment in trade, transport and hospitality also employed a sizeable group of beneficiaries (24.6%), while only a small minority entered construction (4.0%) or industry and production of goods (4.4%).

Compared to national employment patterns, this represents a very distinct profile. In Belgium overall, “other services” dominate employment (50.1%), while administrative and support services make up just 10.3% (Figure 3.15). MIS beneficiaries are more concentrated in administrative and support services, which is also true, to a lesser extent, for former unemployment benefit recipients (28.5%). Similarly, trade, transport and hospitality play a slightly larger role for MIS beneficiaries (24.6%) than both the national average (21.2%) and former UB recipients (21.8%), while traditional sectors such as industry and construction absorb much lower shares of MIS beneficiaries (together just 8.4%) than in the national workforce (18.4%).

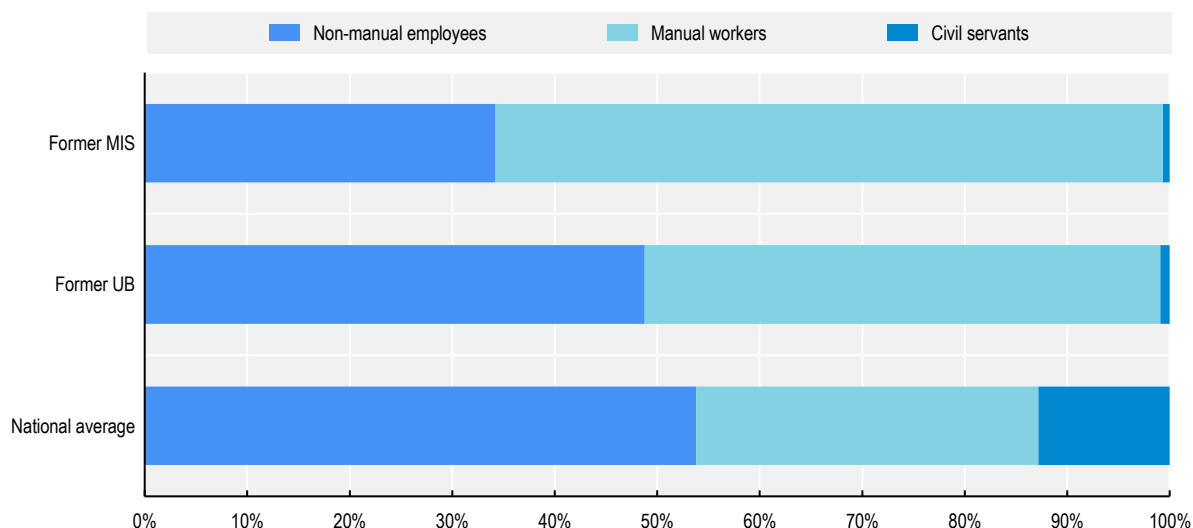
A particularly striking finding is the prominence of administrative and support service activities (NACE N), which alone accounts for nearly one-third of all jobs taken up by MIS beneficiaries. Unlike the broad “other services” category (including 8 NACE categories), NACE N represents a single, clearly defined set of activities, highlighting its central role in the labour market integration of this group. This sector covers a diverse range of functions, from temporary work agencies and employment placement services to cleaning and facility management, security, and office support services. The concentration of beneficiaries in activities such as temporary agency work, general cleaning of buildings and services to buildings and landscapes illustrates how re-employment often occurs in roles that are highly accessible, characterised by relatively low formal entry requirements and where employers frequently rely on flexible or outsourced labour. The weight of NACE N underscores both the importance of these intermediary and support functions in absorbing jobseekers and the reliance of MIS beneficiaries on entry-level opportunities in sectors marked by high turnover and externalisation of services.

The other services category (NACE codes included are J-U, excluding N) is broad, covering activities ranging from information and communication, finance, real estate and professional services to education, health and social work, arts, recreation and public administration. The high representation of this group indicates that MIS beneficiaries are not only entering elementary services jobs but also positions in publicly supported or community-oriented activities such as health and social care, which are sectors with steady demand.

By contrast, only limited numbers of beneficiaries transitioned into construction (NACE F) and industry and goods production (NACE A-E). These sectors are often characterised by stricter qualification requirements, higher physical demands and slower job turnover. While they represent important avenues for sustainable employment, the low shares point to potential barriers in connecting MIS beneficiaries to vacancies in these areas.

Figure 3.15. Industries in which former MIS beneficiaries find employment

Sectors of employment 12 months after minimum income scheme (MIS) or unemployment benefit (UB) entry (2011-2020), benchmarked against 2024 national averages



Note: Data for former MIS and former UB include spells between 2011-2020 and tracks their status one year after registration.

Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS) and StatBel *Statistics on establishment units* <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units> for the national average.

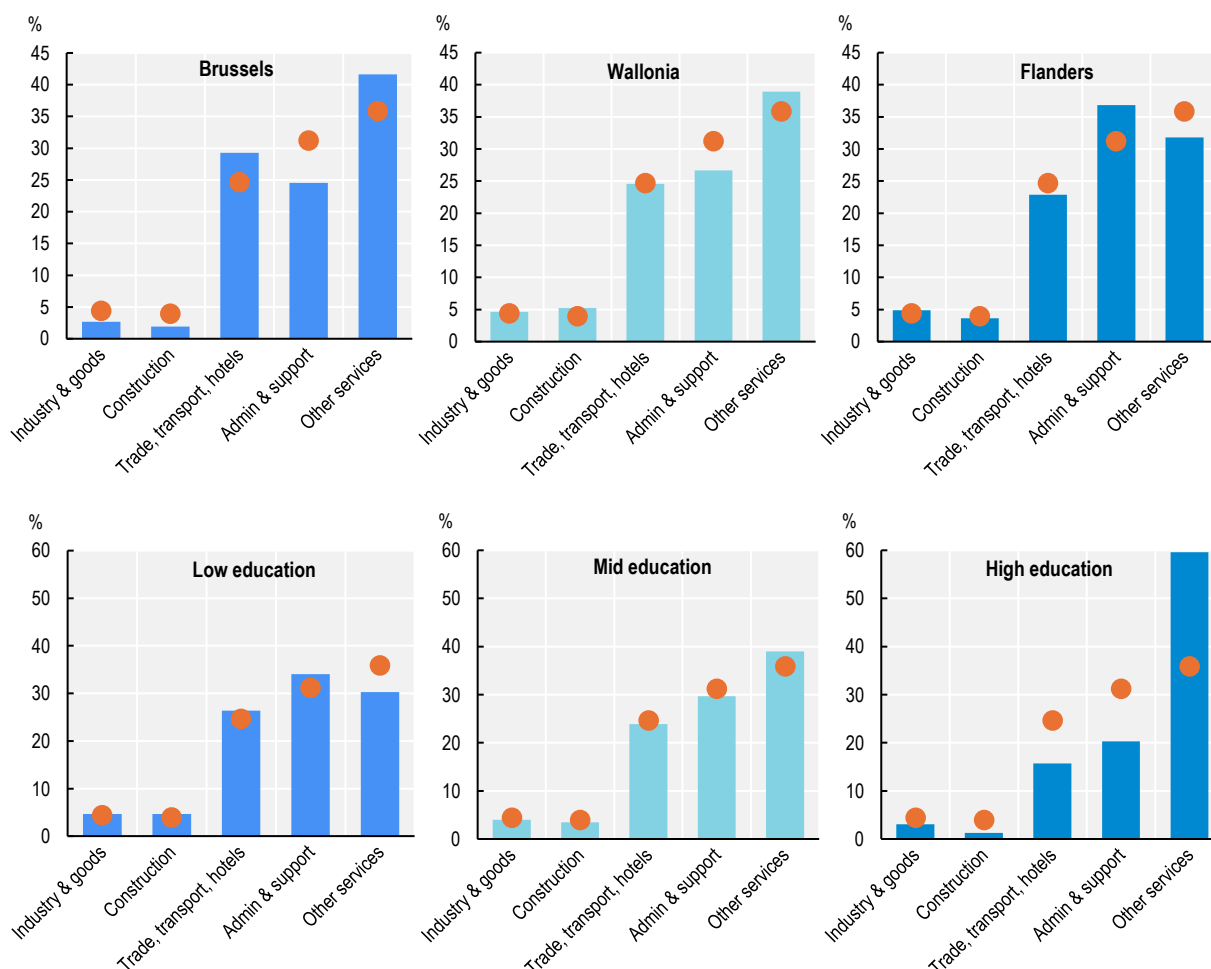
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Industries of employment of former MIS beneficiaries differ by region and education

While MIS beneficiaries are generally concentrated in services, the relative weight of sectors differs across regions. In Brussels, placements are strongly oriented towards other services (41.6%), well above the national average, while administrative and support services (24.5%) employ less MIS beneficiaries (Figure 3.16). These patterns may partly reflect the structure of local labour demand and vacancies, which are not captured in this analysis. This may be explained by the capital's labour market structure, where public services, education and healthcare account for a substantial share of employment (OECD, 2023^[10]). In Wallonia, the distribution is more balanced: beneficiaries enter administrative and support services (26.6%) and other services (38.9%) at levels broadly in line with the overall average, with a somewhat higher-than-average share in construction (5.2%). By contrast, Flanders stands out for its stronger reliance on administrative and support services (36.8%), significantly above the national benchmark, while other services (31.8%) are less dominant. Flanders also registers the highest integration into trade, transport and hospitality (22.9%), suggesting that retail and logistics play a more prominent role in absorbing beneficiaries there.

Figure 3.16. Stark differences in industries across regions and educational attainment emerge

Share of former MIS beneficiaries employed in each sector/industry 4 quarters after registering, pooled 2011-2020



MIS: Minimum Income Scheme.

Note: **Bars** show the share of former minimum income scheme (MIS) beneficiaries employed in each industry within the subgroup, totalling to the entire population in employment that formerly receiving MIS. **Dots** indicate the overall average share employed in that industry across all groups as a benchmark.

The NACE groupings used in this analysis are based on the following classification: Industry and goods production (Sections A–E: Agriculture, forestry and fishing; Mining and quarrying; Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply, sewerage, waste management and remediation activities); Construction (Section F); Trade, transport and hospitality (Sections G–I: Wholesale and retail trade, including repair of motor vehicles; Transportation and storage; Accommodation and food service activities); Administrative and support services (Section N); and Other services (Sections J–U, excluding N: including information and communication, financial and insurance activities, real estate, professional and scientific activities, public administration, education, health and social work, arts, entertainment, and other service activities). Educational attainment is based on International Standard Classification for Education (ISCED) codes (0-2, 3-4 and 5-8 respectively). Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

StatLink  <https://stat.link/wnr8ja>

Differences are also marked across education levels, and these reinforce patterns of labour market segmentation. Among those with the lowest qualifications (ISCED 0-2), employment is concentrated in administrative and support services (34.1%) and other services (30.3%), with both shares closely aligned with national averages. Beneficiaries with mid-level education (ISCED 3-4) show a similar pattern but with slightly higher integration into other services (39.0%), above the overall average. The most distinctive

pattern emerges among the highly educated (ISCED 5-8), where nearly 60% of beneficiaries find work in other services, far exceeding the national benchmark. This suggests that higher education opens access to more knowledge-intensive and professional segments of the service economy (e.g. information, finance, education, health), while reliance on administrative and support services (20.3%) and trade, transport and hospitality (15.7%) is comparatively lower.

Taken together, these results highlight that although service activities dominate across the board, regional economic structures and educational attainment shape where beneficiaries are most likely to find jobs. Flanders channels a relatively large share of beneficiaries into administrative support and logistics, Wallonia into construction, and Brussels into broader public and social services. Similarly, higher qualifications are associated with stronger integration into knowledge-intensive service activities, while lower qualifications link more directly to entry-level administrative support roles. These patterns point to both opportunities and vulnerabilities: while services are key drivers of employment, the concentration of less-educated beneficiaries in high-turnover segments such as cleaning or agency work may limit long-term employment stability.

3.3.4. Former MIS beneficiaries predominantly find employment in manual occupations

One year after the beginning of their MIS spell, beneficiaries who transition into employment are predominantly found in manual occupations (65%), while around a third take up positions as non-manual employees (34%). Only a very small share enter jobs as civil servants (less than 1%), underscoring the strong concentration of re-employment in private sector manual and non-manual work. By comparison, the national workforce is much more evenly distributed across occupation types, with 33% in manual jobs, 54% in non-manual jobs, and nearly 13% in civil service positions. This contrast highlights how MIS beneficiaries' re-employment pathways are skewed towards manual work and under-represent public sector opportunities. More detailed information on the types of jobs taken up by former MIS beneficiaries, information that would be highly relevant for developing a job-matching tool, is available in Belgian administrative registers, but could not be used in this analysis due to the lack of direct access to the underlying micro-data.

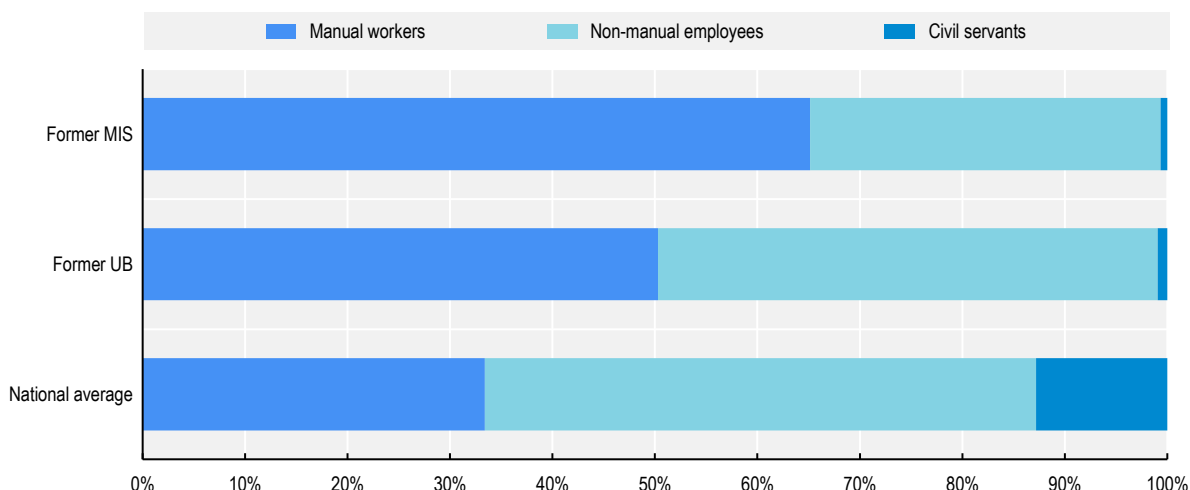
Employment pathways of former MIS beneficiaries are heavily weighted towards manual service roles

Across all sectors, the majority of MIS beneficiaries find jobs in manual (blue-collar) occupations, but important differences emerge across industries. The administrative and support services sector stands out as the single largest employer of blue-collar workers, absorbing more than a quarter (27%) of all beneficiaries. Trade, transport and hospitality also play a substantial role, with nearly 17% in manual jobs and a further 11% in non-manual roles. By contrast, in other services, the balance tilts more towards white-collar employment (15%) than manual work (13%), reflecting the presence of jobs in education, health, and public services alongside lower-entry service occupations. Traditional sectors such as industry and construction account for only modest shares of overall employment, and within them the bulk of jobs are manual. Civil service positions represent only a very small fraction overall, concentrated in other services.

Compared with former unemployment benefit recipients, MIS beneficiaries are considerably more concentrated in blue-collar occupations, particularly in support services and lower-entry service sectors (Figure 3.17). Former unemployment benefit recipients, by contrast, have a much higher representation in white-collar roles, highlighting a clear occupational divide between the two groups.

Figure 3.17. Occupational structure of employment among former MIS and unemployment benefit recipients

Types of occupations 12 months after MIS or unemployment benefit entry (2011-2020), benchmarked against 2024 national averages



MIS: Minimum income scheme, UB: Unemployment benefit.

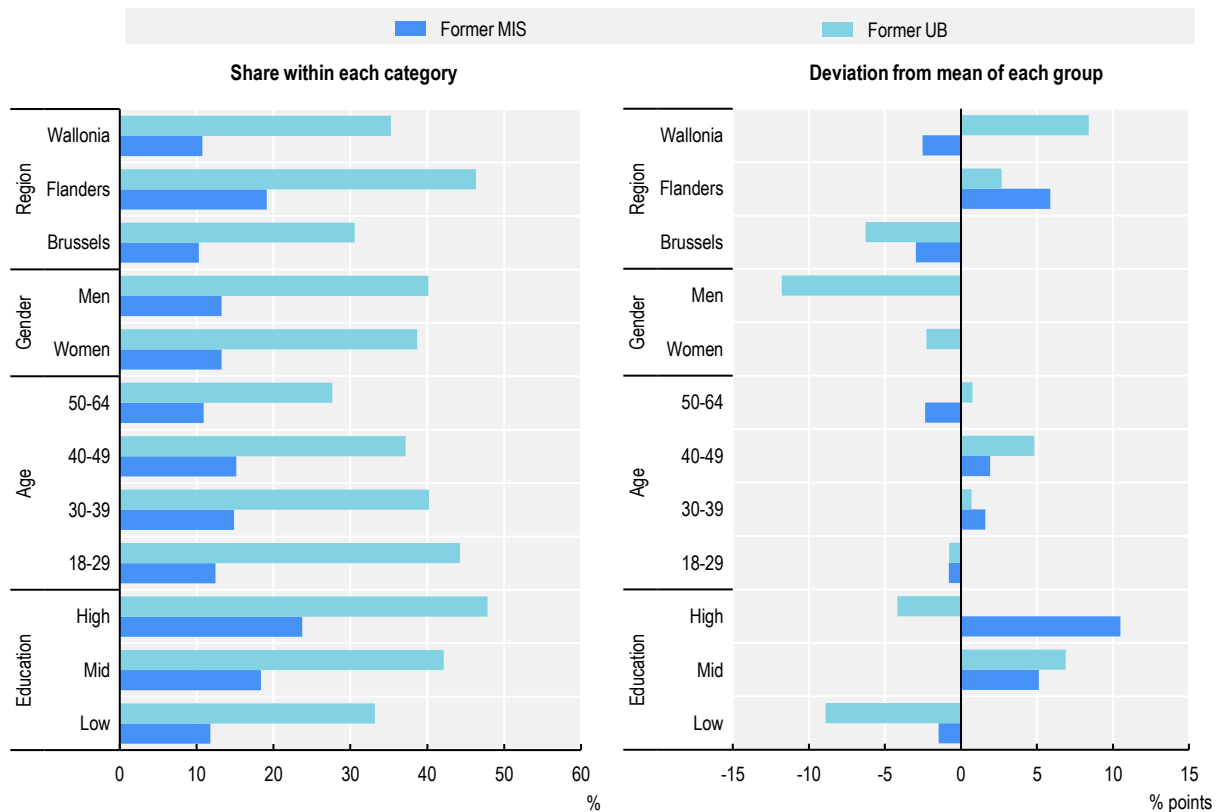
Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS) and StatBel Statistics on establishment units <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units> for the national average.

StatLink  <https://stat.link/fvu2m4>

Employment outcomes differ between former MIS and unemployment benefit recipients

On average, only 13% of former MIS beneficiaries are in employment 12 months after exit, compared with 39% of former unemployment benefit recipients. Despite this difference in overall levels, the trends across groups are broadly similar for both populations (Figure 3.18): outcomes are systematically stronger among those with higher education, weaker among older age groups, and more favourable in Flanders than in Brussels or Wallonia. Looking at deviations from the mean, some differences stand out. Among former MIS beneficiaries, employment rates are relatively better for the prime-age population (aged 30-49) and for those with tertiary education, while both the youngest and oldest perform below average. For former unemployment benefit recipients, the gradient by education is even steeper and younger beneficiaries are relatively more successful, whereas older workers are substantially under-represented in employment.

Figure 3.18. Employment outcomes one year after registration: Minimum income scheme (MIS) versus unemployment benefit recipients (UB)



Note: Educational attainment is based on International Standard Classification for Education (ISCED) codes: Low: 0-2, Mid: 3-4 and High 5-8.
Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

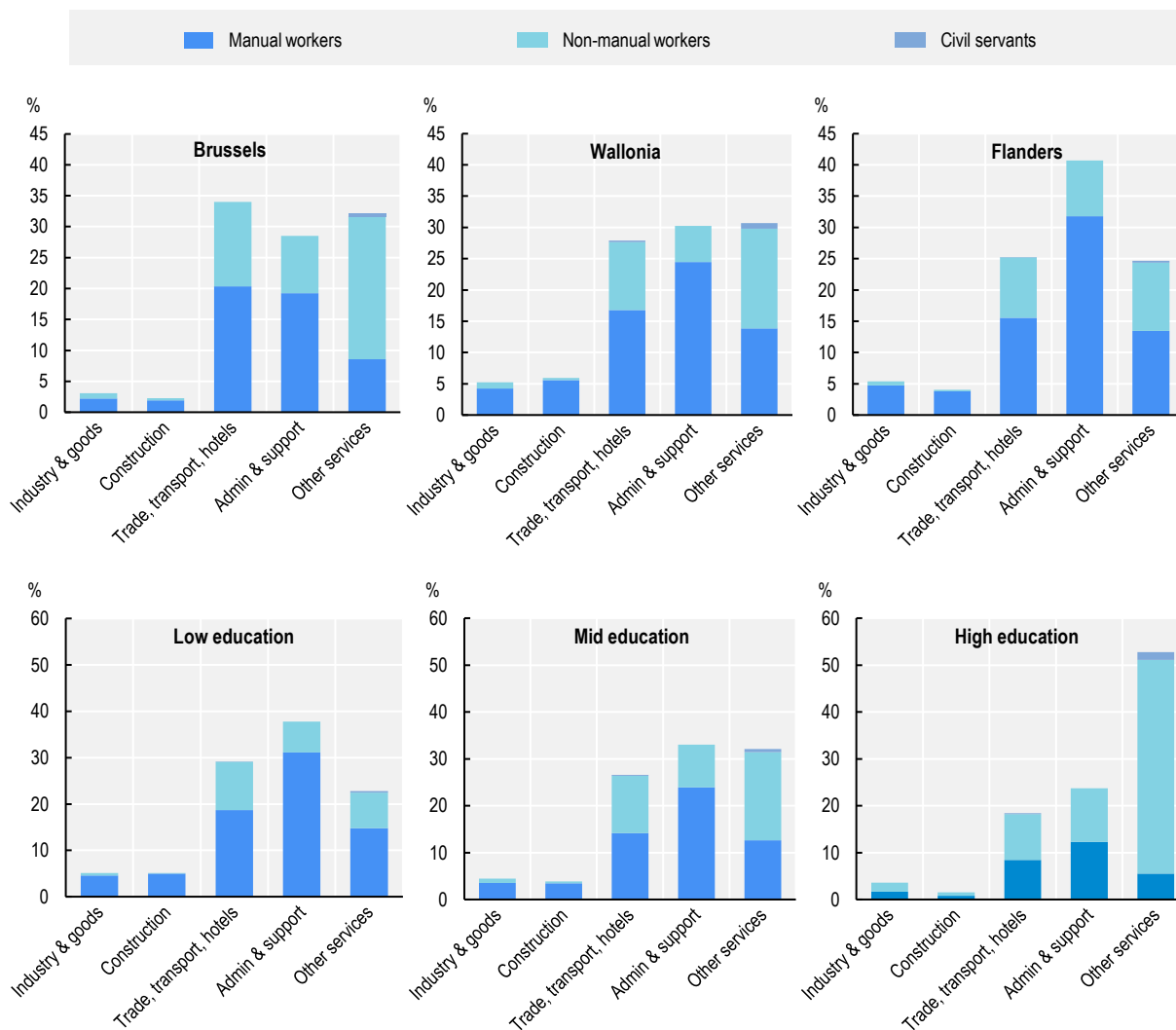
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Occupational composition of former MIS beneficiaries differs across regions and education levels

The occupational composition of jobs taken up by former MIS beneficiaries differs markedly across both regions and education levels (Figure 3.19). In Brussels, beneficiaries in services are more often employed as non-manual employees, particularly in “other services,” where administrative, educational, and health-related roles dominate compared to other regions.¹¹ By contrast, in Wallonia and Flanders, employment within the same sectors relies more strongly on manual work, notably in administrative and support activities as well as in trade, transport and hospitality.

Differences are even more pronounced when considering educational attainment, though in the expected direction. Among the low- and mid-qualified (ISCED 0-2 and ISCED 3-4), employment is largely concentrated in manual occupations, particularly in administrative support, cleaning, and trade-related jobs. However, beneficiaries with higher education (ISCED 5-8) exhibit a sharply distinct profile. Nearly 60% of this group finds employment in other services, with a very high share of these roles classified as non-manual employee jobs.

Figure 3.19. Differences in industries who employ former minimum income scheme (MIS) beneficiaries across regions and educational attainment by occupation type



Note: Educational attainment is based on International Standard Classification for Education (ISCED) codes: Low: 0-2, Mid: 3-4 and High 5-8.
Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

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3.4. Conclusion

Building on administrative data from Greece and Belgium, this chapter analyses the profile of MIS beneficiaries, their registration patterns with the PES, their transition rates into the labour market and, once employed, the types of jobs they take up and the employers who hire them.

Based on the analysis, the key findings for Greece are:

- GMI beneficiaries are more often women, Greek nationals, and aged over 50. A significant share of GMI beneficiaries are already employed when applying for the GMI. Despite being employed, their household income remains below the eligibility threshold. Digital tools could help these individuals identify additional job opportunities to complement their existing employment and explore career pathways towards better-quality jobs.

- About two in three GMI beneficiaries are registered with DYPA, and most of them were already registered before applying for the GMI. Compared to other jobseekers registered with DYPA, GMI beneficiaries more often declare belonging to a vulnerable group, and they are disproportionately older and with only compulsory or secondary education, groups whose labour market entry is typically more challenging. This is also reflected in their transition rates into employment: while roughly 70% of all jobseekers registered with DYPA find work within two years of registration, this share is only 30% for GMI beneficiaries.
- GMI beneficiaries often find employment in occupations different from those they originally targeted. While many seek employment in building and related trades, general clerical work, or labouring in mining, construction, manufacturing and transport, they more often find employment as cleaners, helpers, and personal service workers. This mismatch suggests that job-matching tools should enable flexible matching, not only by occupation but also by the broader set of skills workers possess, allowing to identify jobs in other occupations that require similar skill sets. At the same time, GMI beneficiaries may require reskilling to transition into new occupations or upskilling to access jobs in their targeted occupation. Job-matching tools should therefore account for situations where matches can be facilitated by participation in upskilling or reskilling measures (e.g. ALMPs). This is particularly relevant for older workers coming from physically demanding occupations who may wish to transition into other types of work.
- Certain groups, such as older individuals and those with low education, are overrepresented among GMI beneficiaries registering with DYPA compared to other jobseekers. These groups typically have low digital skills and may face barriers in using digital tools. Digital tools targeted to jobseekers should be designed in a way that is user-friendly for individuals with limited digital literacy and adequate support from employment counsellors and social workers should be provided in using the tools.
- When entering employment, GMI beneficiaries are more likely than other jobseekers, including other vulnerable groups, to be employed part-time or in shift work. Although this may reflect a deliberate choice to balance employment with personal circumstances, part-time contracts are on average associated with lower hourly wages. They also more often find jobs in the hospitality sector and in micro and small enterprises. Job-matching tools should therefore ensure comprehensive coverage of vacancies in these sectors and with these employers, which often rely on non-traditional recruitment channels, while also ensuring that these vacancies meet minimum quality standards. Although such jobs can serve as stepping stones into the labour market, it is essential to provide GMI beneficiaries with opportunities to progress towards good-quality employment. Career-progression tools should therefore illustrate possible pathways towards more stable and better-quality jobs.

Based on the analysis of cross-tabulations received from the CBSS, key findings for Belgium are:

- MIS beneficiaries are a diverse group, with marked differences across regions and educational backgrounds. More than half of new entrants are still on the benefit one year after registering, underlining the persistence of reliance on the scheme and the challenges of rapid labour market integration. Digital job matching and career recommendation tools could be designed to provide timely information on vacancies, training opportunities and career pathways before long-term reliance on the scheme sets in, supporting local welfare offices in the development of their social activation plans.
- Around 13% of beneficiaries move into regular jobs within a year compared with nearly 40% of unemployment benefit recipients, with strong differences by region and education: outcomes are better in Flanders and among those with higher qualifications, while younger and older beneficiaries fare less well. Digital job matching and career recommendation tools would allow for customised recommendations that take into account regional labour demand and individual skill

profiles. For lower-qualified beneficiaries, such digital tools could embed connections to upskilling offers and show entry-level jobs with clearer pathways to better employment.

- MIS beneficiaries who find work are overwhelmingly employed in service sectors, especially administrative and support services, trade/transport/hospitality, and other services (education, health, social care). Together, these account for over two-thirds of placements. Employment in goods-producing industries is marginal, reflecting both skill requirements and labour market barriers. Digital job matching tools should ensure broad coverage of vacancies in these sectors, including micro and small enterprises that often rely on informal recruitment. At the same time, these tools could highlight opportunities in potentially underutilised sectors (e.g. construction, manufacturing).
- While the group profiles are similar in terms of trends by age, education, and region, unemployment benefit recipients have higher overall (re-)employment rates (39% vs. 13% for former MIS beneficiaries) and are more likely to enter white-collar roles, highlighting a divide in both the quantity and quality of employment outcomes. Digital tools could help not only to match people with immediate job openings but also map career progression routes towards more stable and higher-quality employment. Integration with training catalogues and certification recognition might be particularly valuable for beneficiaries seeking to transition into non-manual jobs.

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Annex 3.A. Additional statistics Greece

Annex Table 3.A.1. Employed GMI beneficiaries are more often men, middle-aged, and non-Greek with only compulsory education

Characteristics of GMI beneficiaries, by employment status, December 2024

	Never employed during GMI spell	Employed at least once during GMI Spell
Gender		
Women	56.7%	43.5%
Men	43.3%	56.5%
Age		
Under 30	16.7%	13.9%
30-50	40.6%	44.7%
Over 50	42.7%	41.3%
Nationality		
Greek	87.1%	78.7%
Non-Greek	12.9%	21.3%
Education		
None	9.9%	5.2%
Compulsory	38.2%	46.8%
Upper secondary	33.0%	29.4%
Post-secondary	4.1%	3.4%
Tertiary	7.9%	7.1%
Other or missing	6.9%	8.1%
Disability		
With disability	5.3%	0.8%
Without disability	94.7%	99.2%

Note: The sample includes individuals with an active GMI spell in December 2024. "Never employed during GMI spell" refers to beneficiaries who did not report being employed in any of their applications within the spell. "Employed at least once during GMI spell" refers to beneficiaries who reported being employed in at least one of their applications within the spell. The table presents the distribution of characteristics separately for GMIs by employment status, i.e. in both columns, the values for the characteristics under each bold title equal 100%.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek Public Employment Services (DYPA).

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Annex Table 3.A.2. GMI jobseekers differ in terms of observable characteristics from the average jobseeker

Characteristics of jobseekers registered with DYPA, by jobseeker type, 1 February 2017 and 31 December 2024

	GMI beneficiaries	Vulnerable jobseekers (non GMI)	All jobseekers
Gender			
Women	56.4%	51.0%	58.9%
Men	43.6%	49.0%	41.1%
Age			
Under 30	23.3%	24.7%	26.1%

	GMI beneficiaries	Vulnerable jobseekers (non GMI)	All jobseekers
30-50	49.6%	58.3%	53.2%
Over 50	27.1%	16.9%	20.7%
Education			
Unclassified or other	23.3%	45.4%	6.8%
Compulsory	32.1%	23.2%	22.0%
Upper secondary	29.7%	19.2%	38.2%
Post secondary	5.7%	3.3%	9.0%
Tertiary	9.1%	8.9%	23.9%
Missing	0.1%	0.1%	0.2%

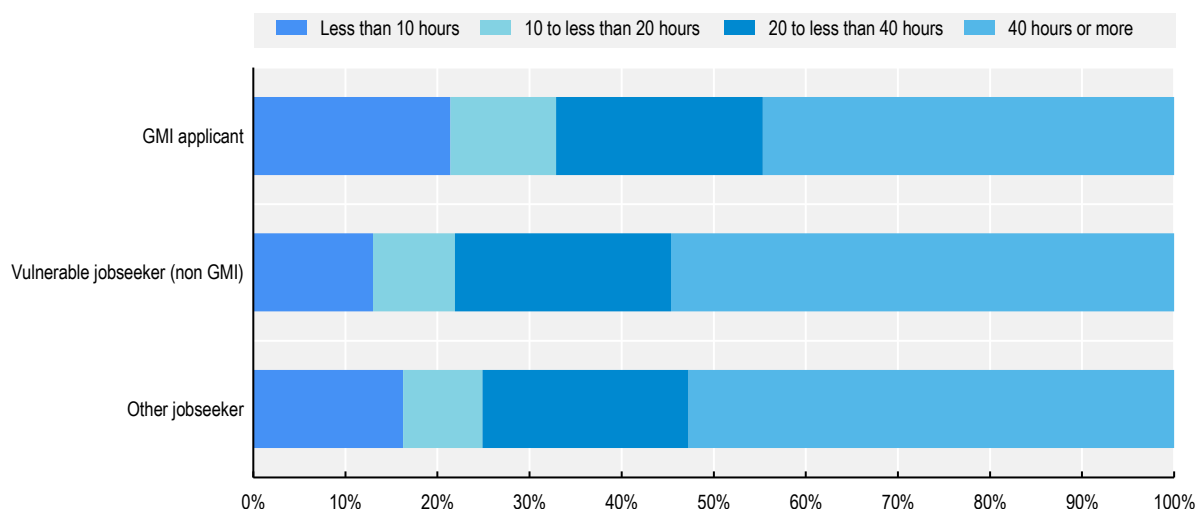
Note: The sample includes employment spells starting between 1 February 2017 and 31 December 2024 of jobseekers aged 18-64. The table presents the distribution of characteristics separately by jobseeker type, i.e. in all columns, the values for the characteristics under each bold title equal 100%.

Source: OECD calculations based on data from the GMI platform and the Greek public employment service (DYPA).

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Annex Figure 3.A.1. Working less than 20 hours per week is more common among GMI beneficiaries than other jobseekers

Share of employment spells in each weekly hours category, by jobseeker type, 1 Feb. 2017 to 31 Dec. 2024



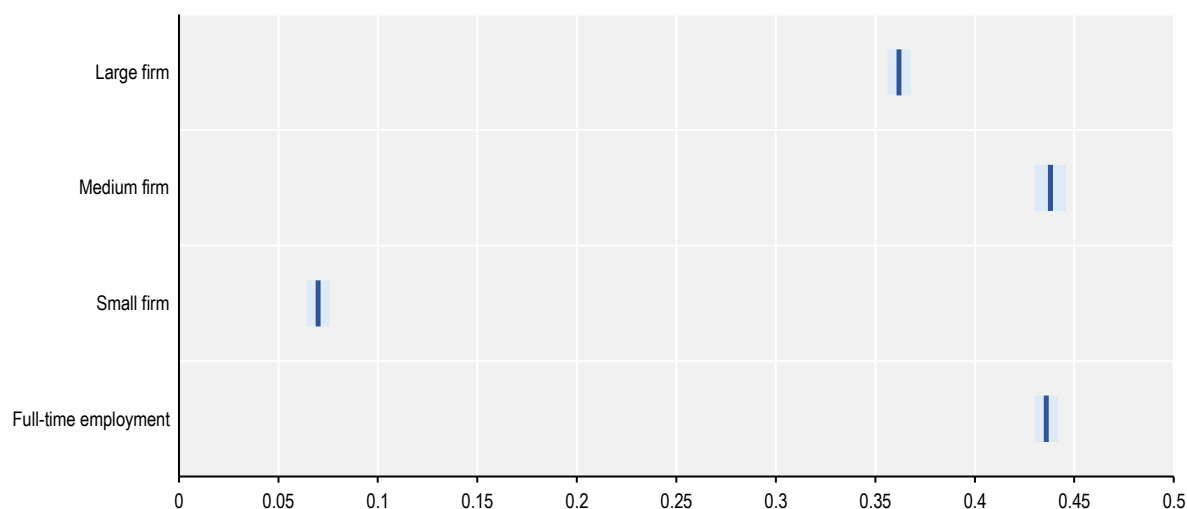
Note: The sample includes employment spells starting between 1 February 2017 and 31 December 2024. Weekly hours refer to the contracted hours at the start of the employment spell. Categories are: less than 10 hours; more than 10 to less than 20 hours; more than 20 to less than 40 hours; and 40 hours or more. The unit of analysis is the employment spell.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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Annex Figure 3.A.2. Full-time employment in medium-size firms is associated with higher hourly wages

Estimated coefficients and 95% confident intervals from an OLS regression of hourly wages



Note: The unit of analysis is the employment spell. The sample includes GMI applicants hired between 1 February 2017 and 31 December 2024. The regression controls for occupation (ISCO-08, 2-digit level) and firm sector of activity (NACE Rev. 2, 1-digit level). Coefficients are reported in Euros. "Small firm", "Medium firm", and "Large firm" coefficients are expressed relative to the omitted category "Micro firm" (1-9 employees). Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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Annex 3.B. Additional statistics Belgium

Annex Table 3.B.1. Regional breakdown of the various types of employment

		Brussels	Flanders	Wallonia	National
Blue-collar	Absolute	124 144	908 755	375 767	1 408 666
	Relative	19.2%	36.9%	33.8%	33.4%
White collar	Absolute	408 088	1 292 096	572 505	2 272 689
	Relative	63.1%	52.5%	51.4%	53.8%
Civil servant	Absolute	114 008	261 237	165 023	540 268
	Relative	17.6%	10.6%	14.8%	12.8%
Total	Absolute	646 240	2 462 088	1 113 295	4 221 623
	Relative	100%	100%	100%	100%

Note: At national level, blue-collar workers, white-collar workers and civil servants account for 33%, 54% and 13% of workers, respectively. The breakdown of the type of paid employment per NACE section is shown here below. We can see that civil servants are mainly found in public administration and defence; compulsory social security (O) and education (P). Blue-collar workers are strongly represented in manufacturing (C), administrative and support service activities (N), construction (F), transportation and storage (H) and accommodation and food service activities (I). White-collar workers are represented in most sectors, specifically in professional, scientific and technical activities (M), information and communication (J) and financial and insurance activities (K), in which they account for more than 90% of the staff. On the other hand, they are under-represented in accommodation and food service activities (I) and in construction (F). Source: STATBEL (n.d.^[11]), <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units>.

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Notes

¹ Households/people that were granted GMI. Applications that were rejected (e.g. because eligibility requirements were not fulfilled) are not included in the sample.

² No. D13oik.3 107/68/21-1-2021 (Government Gazette B'238).

³ Defined as cases where a DYPA unemployment spell overlaps at least partly with a GMI spell.

⁴ Annex Table 3.A.2. in Annex 3.A shows additional characteristics of GMI jobseekers and compares them with those of other vulnerable jobseekers (non-GMI) and all jobseekers.

⁵ The ISCO-08 classification provides an indication of the skill requirements of occupations. Occupations in ISCO-08 major group 9 (elementary occupations) generally require low levels of skills; occupations in major groups 4-8 (Clerical Support Workers; Service and Sales Workers; Skilled Agricultural, Forestry and Fishery Workers; Craft and Related Trades Workers; Plant and Machine Operators and Assemblers) tend to require medium levels of skills; and occupations in major groups 1-3 (Managers; Professionals; Technicians and Associate Professionals) typically require high levels of skills.

⁶ Wages are a commonly used measure of match quality (Lalive, 2007^[12]; Belot, Liu and Triantafyllou, 2024^[13]).

⁷ This analysis is based on cross-tabulations from the Crossroads Bank for Social Security (CBSS), which provide only part of the information available in the system. The CBSS holds much more detailed microdata (see Chapter 4), which would be essential for developing a job-matching tool for MIS beneficiaries. Full access to these data would allow richer analysis and ensure that all relevant indicators can be used to support sustainable employment transitions.

⁸ Detailed information on the variables collected by each agency is available in the corresponding Output that is available on the [project's webpage](#) (Output 2).

⁹ Following the Russian war of aggression against Ukraine, there was a sharp increase in the number of benefit recipients in early 2022. This figure has largely stabilised since the summer of 2022. Some of the increase can therefore be explained by people who fled to Ukraine and were granted temporary protection status (POD Maatschappelijke Integratie, 2025^[8]).

¹⁰ Article 60 allows local welfare centres (CPAS/OCMW) to hire individuals receiving minimum income support, enabling them to gain work experience and, critically, to qualify for unemployment benefits.

¹¹ See Annex 3.B for detailed table of regional breakdown of the various types of employment for the entire population.

4 In both Greece and Belgium, sustainable labour market integration of MIS beneficiaries remains challenging

This chapter examines the career pathways of MIS beneficiaries with a longer-term lens. It focusses on employment stability, occupational mobility, earnings progression, and participation in Active Labour Market Policies (ALMPs). The analysis shows that additional support is needed to help MIS beneficiaries achieve more stable and quality employment outcomes, reinforcing the case for the development of dedicated digital solutions. In Greece, MIS beneficiaries tend to gradually move away from income support. Nevertheless, employment is often unstable, with limited career progression. Participation in ALMPs also remains low. In Belgium, many MIS beneficiaries remain on income support three years after registration, while about one in four enters regular employment, with outcomes varying by region. While employment rates increase over time, career progression remains limited. The Article 60 programme supports activation among the most disadvantaged recipients, but stronger training and job support are needed to improve long-term employment stability and job quality.

4.1. Introduction

Creating pathways into employment for minimum income scheme (MIS) beneficiaries is crucial to ensure sustainable economic and social integration. The European Pillar of Social Rights calls on Member States to combine adequate income support with inclusive labour market measures to guarantee the active inclusion of people excluded from the labour market. In both Greece and Belgium, activation measures play an important role in the overall support provided to MIS beneficiaries. However, compared to other jobseekers, the labour market integration of MIS beneficiaries is particularly challenging due to the multiple and complex barriers they face.

Building on the register-based data infrastructure described in Chapter 2 and the analysis of employability, labour market entry and job characteristics presented in Chapter 3, this chapter takes a longer-term perspective on MIS beneficiaries' labour market trajectories. It examines career pathways after MIS registration and entry into employment, focussing on employment stability, occupational mobility, earnings progression, and the role of participation in Active Labour Market Policies (ALMPs). Together, Chapters 3 and 4 provide the analytical foundation for the concept of digital career recommendation and job matching tools discussed later on in Chapter 5.

The findings presented in this report have direct implications for the design of digital tools aimed at supporting MIS beneficiaries' career development. At a general level, such tools need to account not only for initial job matching but also for employment sustainability and support occupational transitions. By identifying typical career pathways and the role of ALMP participation in supporting progression, the analysis in this chapter helps inform how digital tools can recommend appropriate training, reskilling and upskilling opportunities, with a view to promoting more stable and higher quality employment outcomes.

This chapter is structured as follows. Sections 4.2 and 4.3 present the analysis results for Greece and Belgium, respectively, examining the long-term labour-market trajectories of MIS beneficiaries and the role of ALMPs. Each section concludes by highlight implications for policy design and provides relevant inputs for the development of digital career recommendation tools.

4.2. While MIS beneficiaries in Greece gradually transition away from income support, sustaining long-term employment remains challenging

This chapter analyses the career trajectories of beneficiaries of the Greek GMI beyond their first employment spell. The results reveal several important findings:

- Even among those who enter employment, GMI beneficiaries continue to face challenges in sustaining it. Employment spells tend to be short, particularly among groups already facing greater barriers to labour market integration, such as younger beneficiaries, single parents and people with disabilities.
- High occupational mobility does not systematically translate into career progression. Although more than half of GMI beneficiaries who enter employment change occupation within three years, most transitions occur between jobs with similar occupational status, while transitions to higher status occupations remain limited.
- Earnings progression remains limited, particularly among older beneficiaries. GMI beneficiaries who remain employed tend to experience increases in weekly working hours and wages over time. However, interrupted employment trajectories constrain cumulative earnings growth for many beneficiaries, contributing to persistent income vulnerability, especially among older workers.
- GMI beneficiaries registered with DYPA participate in ALMPs at rates comparable to other jobseekers, and more frequently than other vulnerable groups, particularly in subsidised

employment programmes. Nevertheless, participation in ALMPs remains low across all groups of jobseekers.

4.2.1. Data used and analytical approach

This chapter builds on the administrative data from the GMI platform, DYPA's Integrated Information System (IIS) and ERGANI described in Chapter 2. It analyses additional DYPA data on ALMP participation and describes data preparation steps to enable the analysis of individuals' labour market trajectories over time.

The analyses presented in Sections 4.2.2 and 4.2.3 rely on the construction of longitudinal panel datasets that follow individuals across registers and over time. To this end, for each individual, a monthly panel is constructed on GMI benefits receipt, ALMP participation, unemployment registration with DYPA, and employment status based on ERGANI records.¹ This allows tracking individuals' labour market states and transitions over time in a consistent manner.

Two main panel samples are used in the analysis. The first is a cohort of GMI beneficiaries, defined as all individuals whose first observed GMI application occurred between 1 February 2017 and 31 December 2019. The second is a comparison cohort of jobseekers registered with DYPA, defined as all individuals whose first observed DYPA registration occurred over the same period. Both cohorts are followed over a five-year period from the date of first entry into the respective system (GMI application or DYPA registration), allowing for a long-term assessment of labour market trajectories.

For the analysis on career trajectories, the sample is further restricted to individuals who transition into employment within two years of entering the cohort (i.e. within two years of first GMI application for the GMI cohort, and within two years of first DYPA registration for the comparison group). This restriction ensures that individuals can be observed for at least three years following entry into employment, which is necessary to analyse outcomes such as employment stability, occupational mobility, and earnings progression over time.

Finally, the analysis presented in Section 4.2.3 uses the panel of jobseekers registered with DYPA to analyse participation in ALMPs and compare MIS beneficiaries with other jobseekers over the observation period. The ALMP participation data covers individuals registered as unemployed between January 2017 and January 2025 and are linked, for each individual in the panel, to the respective unemployment spell. ALMPs can be broadly grouped into: (i) employment incentives (e.g. subsidised employment), (ii) direct job creation programmes (e.g. creation of new jobs), (iii) job retention schemes, (iv) work experience programmes, (v) labour market services, including group counselling and job search support.

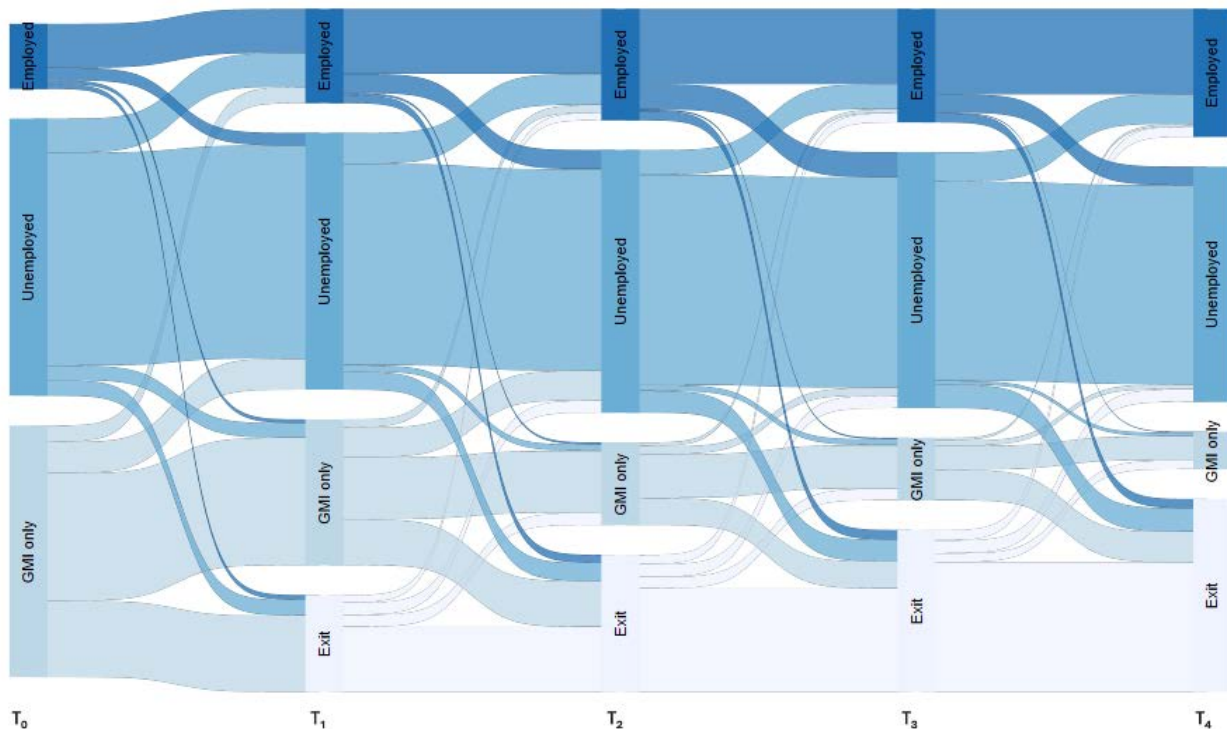
4.2.2. Long-term career pathways of MIS beneficiaries

Understanding whether GMI beneficiaries achieve long-lasting labour-market integration requires an analysis of labour market outcomes beyond initial entry into employment – which constituted the focus of the previous chapter – to examine longer-term trajectories across employment, unemployment, and benefit receipts. This section analyses beneficiaries' long-term career pathways, focussing first on transitions between GMI receipt, unemployment, and employment; and second, on the quality and stability of jobs after first entering employment.

Figure 4.1 provides an overview of the labour market trajectories of the cohort of GMI beneficiaries, defined as those whose first observed application falls between 1 February 2017 and 31 December 2019, over the four-year period following their registration. The Sankey diagram is used to illustrate beneficiaries' pathways and transitions between different labour market states. Each node represents a snapshot of the beneficiaries' labour market status at specific points in time, while the flows between nodes capture the transitions of individuals across states over time.

Figure 4.1. GMI beneficiaries gradually move into employment, but face persistent instability

Sankey diagram of snapshot states at 12-month intervals up to four years after GMI entry



Note: The figure shows GMI beneficiaries' labour-market or welfare state at fixed follow-up points T_0 , T_1 , T_2 , T_3 , T_4 , corresponding to 0, 12, 24, 36, and 48 months after GMI entry. The sample consists of GMI beneficiaries whose first observed application falls between 1 February 2017 and 31 December 2019. The states are mutually exclusive and defined using monthly administrative records: employment (ERGANI), unemployment registration (DYPA), referring to individuals recorded in the GMI system but neither employed nor registered as unemployed; and exit, referring to individuals no longer observed in any of the three systems (GMI, DYPA, or ERGANI). Employment refers to formal private-sector employment recorded in ERGANI. As other forms of employment (e.g. public sector, self-employment, informal work) are not fully captured, some individuals classified as "exit" or "non-employed" may be working outside the observed data.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

Reliance on GMI declines over time, while employment increases, indicating some positive movement towards labour market integration among beneficiaries. At the time of GMI registration (T_0), 47% of beneficiaries are registered with DYPA as unemployed, 42% receive the GMI without being employed nor registered as unemployed with DYPA, and 11% are formally employed, although their household income still falls below the GMI eligibility threshold. Over the four-year period, the data point to some positive developments for a substantial share of the individuals in the panel: GMI receipt falls sharply, formal employment doubles from 11% in T_0 to 22% in T_4 and unemployment decreases modestly.

At the same time, these employment gains remain fragile, as evidenced by continuous flows in and out of employment that point to short or unstable job spells, with many individuals moving back into unemployment. Notably, transitions into employment largely occur through registered unemployment, while direct entries into employment from outside the system (e.g. among individuals who have exited the registries) are comparatively rare. This pattern is consistent with DYPA playing a central role as a key intermediary and gateway into jobs for GMI beneficiaries. At the same time, it may partly reflect institutional features of the GMI system, as beneficiaries who are able to work are required to register with DYPA.

While some individuals exiting the GMI scheme successfully transition into employment, a substantial share remain unemployed (40%) or exit the registries altogether (33%) even four years after first receiving GMI. For the latter group, subsequent outcomes are not directly observable. The absence of continued GMI receipt may reflect a range of situations. In some cases, it may indicate transitions into employment not captured in the available data, such as self-employment, informal work, or other forms of work not registered in ERGANI, or migration. However, exits may also reflect other factors, including non-take-up among eligible individuals, loss of eligibility due to non-compliance with administrative requirements (e.g. registration with DYPA), or transitions into inactivity without continued engagement with support services. As a result, a non-negligible share of beneficiaries may move out of the system without necessarily achieving stable labour market integration.

Career trajectories beyond initial employment

While Figure 4.1 highlights broad movements between states, it does not capture the stability, quality, or progression of jobs held by beneficiaries who enter employment. The remainder of this section therefore zooms in on the labour market trajectories after the first employment spell following registration for the GMI.

It first examines the risk of returning to unemployment after initial employment by occupations and industries. Then, it analyses occupational mobility following the first post-GMI job, including whether job changes represent upward, lateral, or downward moves in occupational status. Finally, it shows earnings trajectories over time, assessing whether employment translates into sustained income growth and reduced dependence on income support.

Employment duration tends to be short after GMI registration

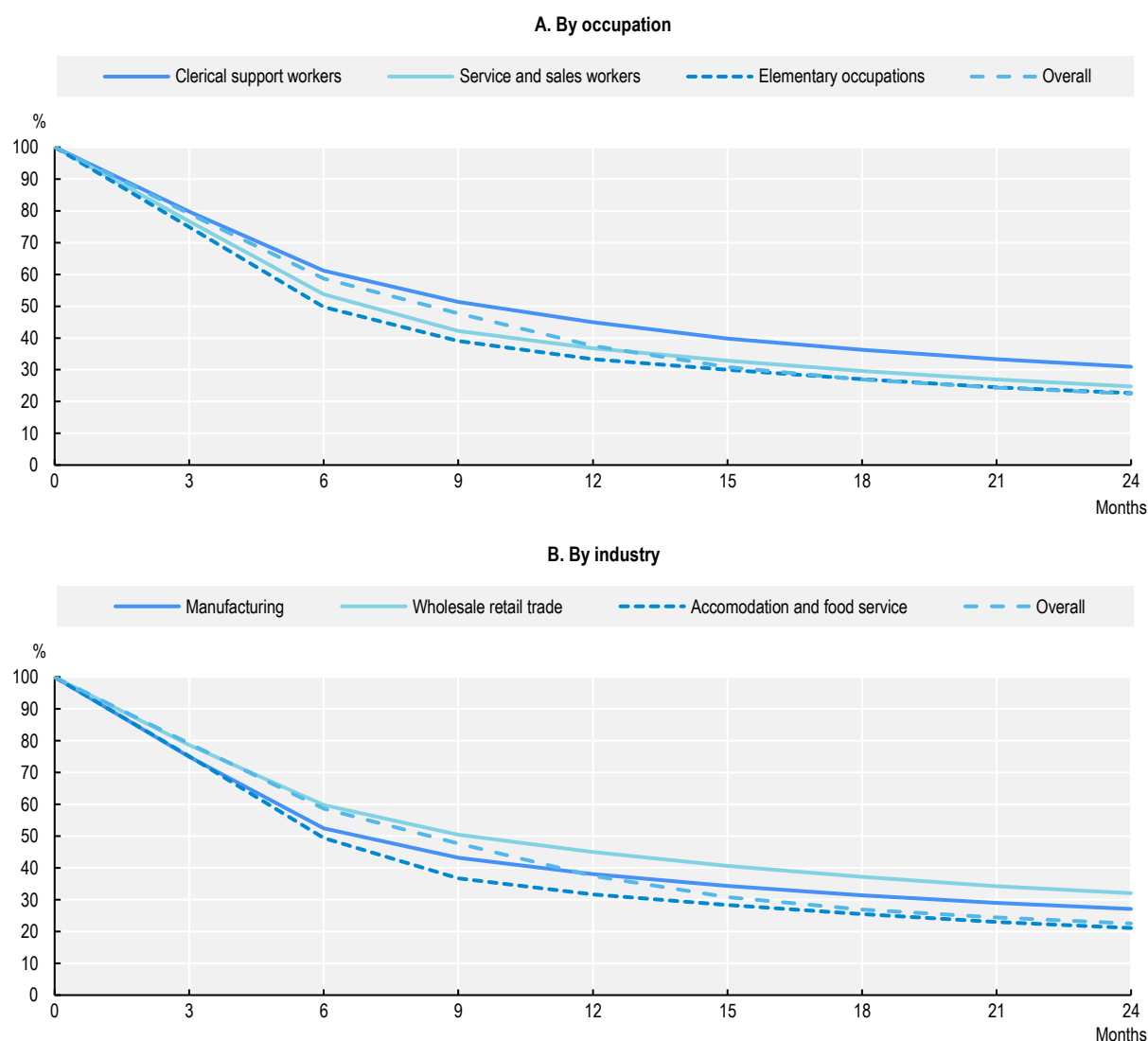
A central dimension of long-term labour-market integration is the extent to which beneficiaries can sustain employment spells over time. The curves presented in Figure 4.2 show the probability of remaining in employment over time after individuals enter their first job following registration for the GMI. The “start time” for each individual corresponds to the moment they enter employment, so all beneficiaries begin with a probability of still being employed equal to 1. The curve then traces how this probability declines over time as individuals exit employment, providing a dynamic view of job retention.

The results show that employment retention declines sharply over the months following job entry, particularly during the first year. Overall, within three months of starting their first job, around 79% of beneficiaries remain in employment. This share decreases to 59% after six months and below 50% after nine months. After one year, only 38% of beneficiaries remain continuously employed without interruption. The decline continues over the following months, although at a slower pace. After two years, approximately 22% of beneficiaries remain continuously employed.

Employment stability varies somewhat across the occupations and industries in which GMI beneficiaries find their first job after registering for the GMI. For instance, beneficiaries entering clerical support occupations have above average levels of retention, with around 80% remaining employed after three months and 45% after a year. By contrast, those entering service and sales occupations, and especially elementary occupations, experience more rapid exits from employment. Out of all individuals finding their first employment in elementary occupations, only one-third of beneficiaries remain in employment after one year. Service and sales occupations display intermediate outcomes, but still substantially lower retention than clerical occupations throughout the observation period.

Figure 4.2. Employment retention declines rapidly after job entry, with variation across occupations and industries

Probability of remaining employed by month since job start for GMI beneficiaries, by occupation and industry



Note: The y-axis shows Kaplan-Meier estimates of the probability of remaining in employment over time since entry into the first job after GMI registration (Kaplan and Meier, 1958^[11]). The sample consists of GMI beneficiaries whose first observed application falls between 1 February 2017 and 31 December 2019, and who started a job at least three years before the end of the five-year observation window. Occupations (ISCO major groups) and industries (NACE Rev. 2 level 1) are shown for categories covering at least 10% of GMI beneficiaries.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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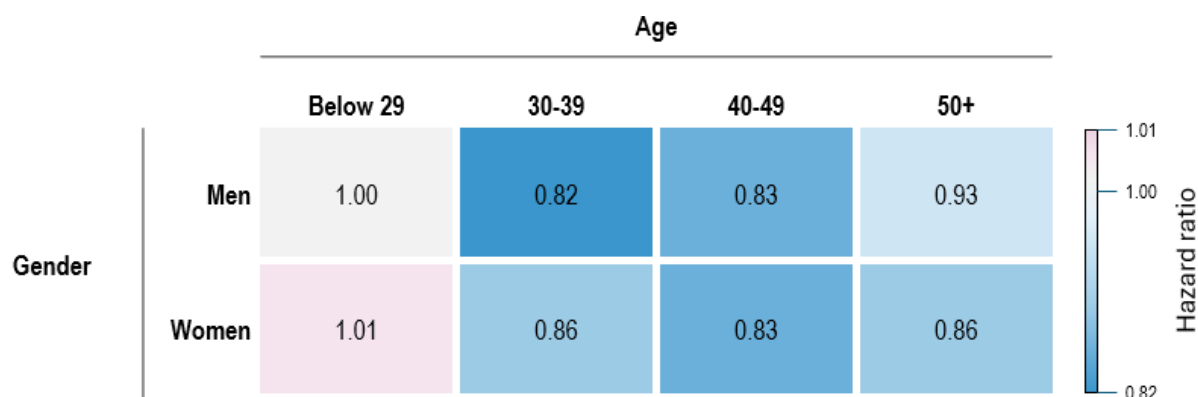
While the previous results show that employment retention varies according to firm and job characteristics, it is also informative to examine how employment retention varies across demographic characteristics of GMI beneficiaries, such as gender and age. Figure 4.3 reports the hazard of leaving first employment after applying for the GMI by combinations of age and gender, after controlling for other factors such as occupation and education. A higher hazard is associated with a greater likelihood of leaving employment and therefore lower employment retention.

Figure 4.3 shows that employment retention varies both by age and gender. GMI beneficiaries aged below 29 display the lowest employment retention, with younger women facing slightly lower retention than their male counterparts. This suggests that, once in employment, younger GMI beneficiaries face a higher hazard of leaving employment than older beneficiaries. Among beneficiaries aged 30-39, employment retention is higher for both men and women compared to their younger counterparts, although the gender gap is the widest within this age group. Among GMI beneficiaries aged 40 and above, the age gradient differs between men and women: while men aged 40-49 display higher employment retention than men aged 50 and above, the opposite pattern is observed among women.

While these results highlight important differences in employment retention across gender and age groups, understanding the underlying mechanisms would require a more in-depth analysis. Importantly, the model controls for the industry and occupation of the job entered by the GMI beneficiary, implying that differences across gender and age groups do not reflect differential selection into occupations or industries. However, selection into employment may also depend on unobservable characteristics not captured in the analysis, which could partly explain these differences.

Figure 4.3. Employment retention is lower for female and younger GMI beneficiaries

Estimated hazard ratios of leaving first employment after applying for the GMI, by gender and age group



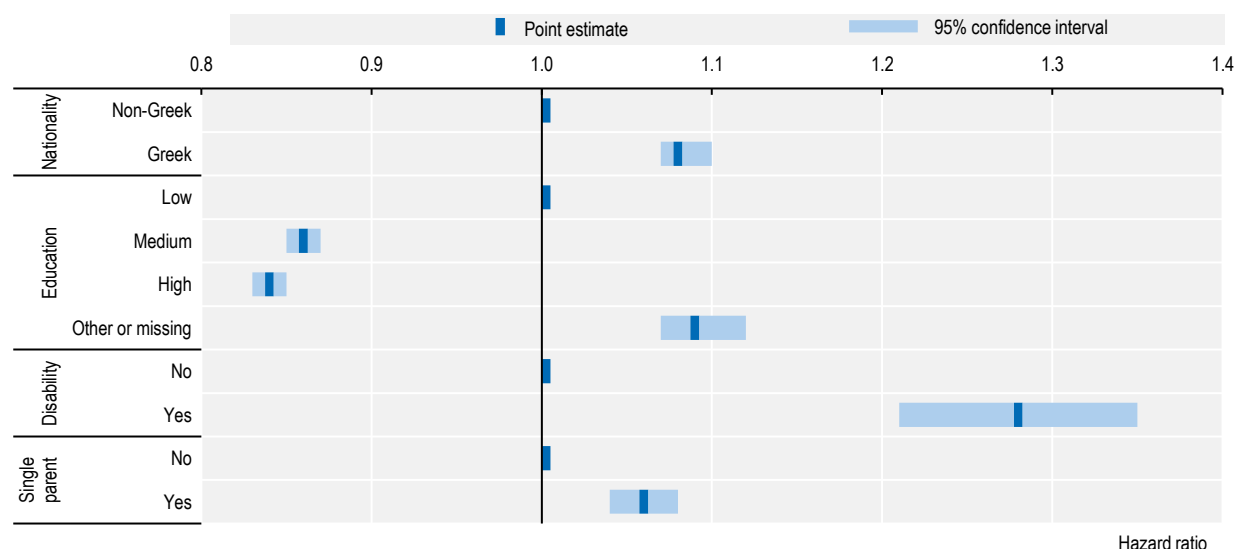
Note: The table reports estimated hazard ratios from a Cox model (Cox, 1972^[2]) of exit from first employment after registration for the GMI. Reported values are combined hazard ratios for each age – gender group, calculated from the relevant main effects and interaction terms. In addition to age and gender, the model controls for nationality (Greek/non-Greek), education (low, medium, high, other/missing), disability status (yes/no), single-parent household status (yes/no), occupation (ISCO major group) and industry (NACE). The reference group is comprised of men aged below 29. Values above 1 indicate a higher hazard of exiting employment compared to this reference group, while values below 1 indicate a lower hazard.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

In addition to age and gender, other individual characteristics of GMI beneficiaries may also affect employment retention. Figure 4.4 shows how retention in first employment after GMI registration varies across a range of characteristics. Somewhat surprisingly, Greek nationals face higher hazards of leaving employment than non-Greek beneficiaries. GMI beneficiaries with disabilities also face higher risks of exiting employment, suggesting that individuals with disabilities may face not only greater difficulties in entering employment, but also in retaining it once employed. A similar pattern is observed among single parents, possibly reflecting the care responsibilities they face. Overall, these results suggest that GMI beneficiaries facing greater barriers to employment continue to face higher risks of leaving employment even after successfully entering the labour market.

Figure 4.4. Greek nationals, single parents and individuals with disability face lower employment retention

Estimated hazard ratios of leaving first employment after applying for the GMI, by various characteristics



Note: The figure shows estimated hazard ratios and confidence intervals from a Cox model (Cox, 1972^[2]) of exit from first employment after registration for the GMI. In addition to the characteristics displayed, the model controls for gender, age, occupation (ISCO major group) and industry (NACE). For each characteristic, hazard ratios are expressed relative to the corresponding reference category: non-Greek nationals, low level of education, individuals without disability, and individuals not living in a single-parent household. Values above 1 indicate a higher hazard of exiting employment compared to the relevant reference group, while values below 1 indicate a lower hazard.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA) and the employment register ERGANI.

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High occupational mobility after initial employment does not translate into upward progression

The short duration of initial employment spells among GMI beneficiaries is accompanied by a high degree of occupational mobility. More than half of those who enter employment experience at least one occupational change within the three years following their first post-GMI job.² Such mobility may support the accumulation of experience, acquisition of skills, and facilitate movement towards higher-quality employment. However, it may also reflect instability, with individuals cycling between jobs of similar or lower quality.

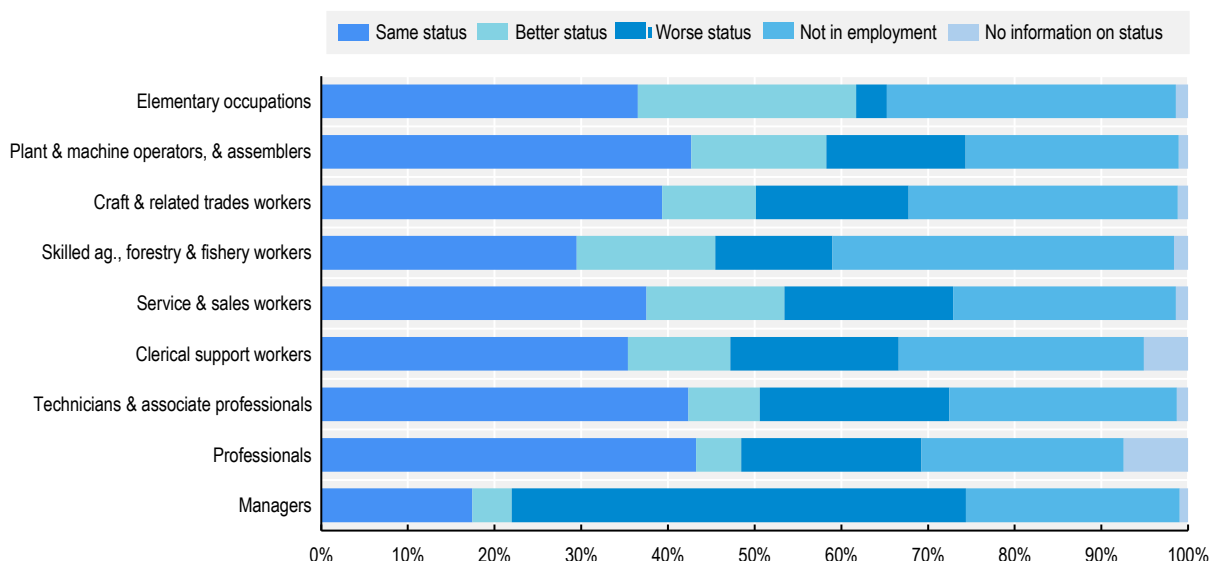
To better understand the nature of these career moves, occupational transitions are analysed using the ISCO classification. The incidence of occupational change is measured as the share of individuals who hold jobs in more than one four-digit ISCO occupation during the three-year observation window, while the nature of these transitions is assessed by comparing the occupational status of jobs held three years after entry with those of the initial job, using the International Socio-Economic Index of Occupational Status (ISEI) (Ganzeboom, De Graaf and Treiman, 1992^[3]), which provides a standardised ranking of occupations based on their associated earnings and educational requirements.

Figure 4.5 presents the direction of occupational transitions, comparing the ISEI score of occupations held three years after entry with those in the initial job, by initial occupation.³ Most transitions occur within the same level of occupational status. While such moves may still involve some degree of skill acquisition or adaptation, they do not necessarily translate into clear upward progression within the observation period.

Upward mobility is observed for some beneficiaries. Around 17% of GMI beneficiaries hold jobs with a higher occupational status at the end of the three-year window, indicating some scope for upward progression, particularly among those initially employed in elementary occupations and service jobs. However, this partly reflects the structure of opportunities: individuals starting at the lower end of the occupational distribution face limited scope for downward mobility and greater scope for moving to occupations with higher status.

Figure 4.5. Most occupational transitions occur at similar levels of occupational status

Share of GMI beneficiaries by direction of occupational transitions and by initial occupation



Note: Occupation refers to the first job held after GMI registration, classified according to ISCO major groups. Occupational status is defined based on the International Socio-Economic Index of Occupational Status (ISEI), which ranks occupations according to their associated earnings and educational requirements. “Better status”, “same status” and “worse status” refer to the relative position of occupations held three years after entry compared to the initial job. “Not in employment” refers to individuals not observed in registered employment at the end of the three-year follow-up period. The sample includes GMI beneficiaries with at least three years of follow-up after entry into employment.

Source: OECD calculations based on the employment register ERGANI and Greek Guaranteed Minimum Income (GMI) records.

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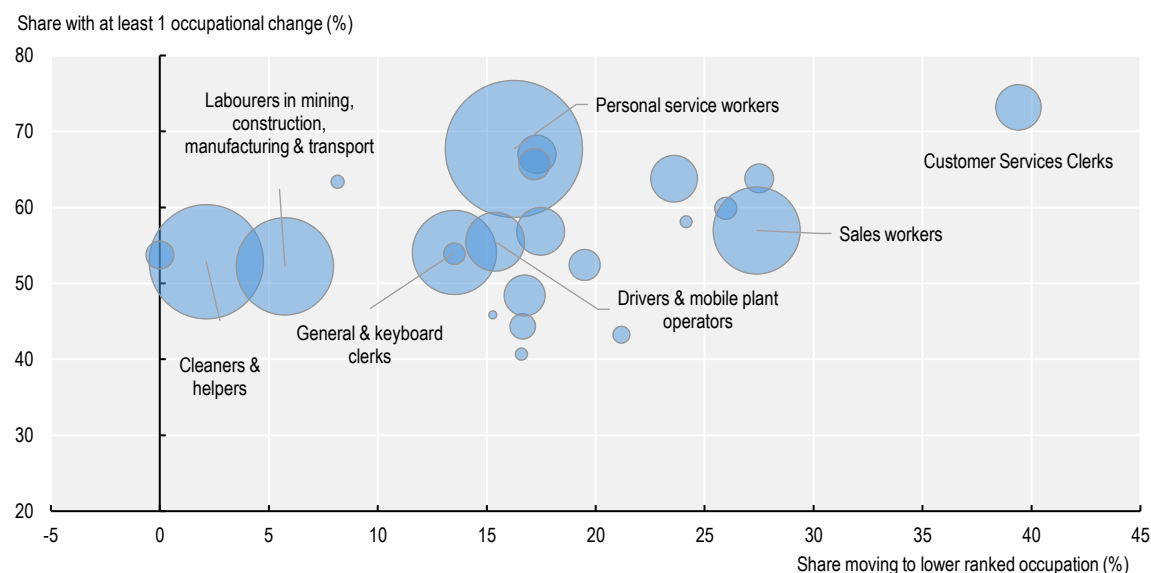
Downward mobility is of a similar order of magnitude, remaining below 20% for most occupational groups. While not predominant on average, downward transitions are particularly informative when combined with high levels of occupational mobility. Beneficiaries who frequently change occupation and at the same time move to lower-status jobs appear to face greater challenges in sustained progression. These trajectories may signal difficulties in skill matching, job stability, or progression pathways, and point to a need for continued re-skilling and up-skilling support even after labour market entry.

Figure 4.6 provides a more granular perspective on these dynamics by jointly considering the incidence of occupational change and the risk of downward mobility across detailed ISCO-2 occupations. This representation helps identify occupations in which beneficiaries are simultaneously more likely to change occupation and more likely to move to lower-ranked jobs. Such combinations characterise employment pathways marked by high mobility but limited progression, and in some cases by repeated exits from and re-entries into employment. Occupations such as customer service clerks, sales workers, and personal service workers, stand out in this respect, combining relatively frequent occupational changes (50% or more people change occupation at least once during the three-year-window), with sizeable shares of downward transitions (27% for sales workers and 39% for customer service clerks).

Finally, low downward mobility among those starting in elementary occupations does not signal better outcomes. It largely reflects the limited scope for further downward movement from already low-ranked jobs. beneficiaries whose first job after GMI registration is in elementary occupations face weaker employment prospects overall, with around 47% no longer in employment after three years.

Figure 4.6. High occupational mobility sometimes combines with downward transitions

Occupational mobility incidence, and share of downward transition, GMI beneficiaries by initial occupation



Note: Occupation refers to the first job held after GMI registration, classified according to the ISCO 2-digit occupational groups. Occupational status is defined based on the International Socio-Economic Index of Occupational Status (ISEI), which ranks occupations according to their associated earnings and educational requirements. "At least one occupation change" indicates whether individuals experienced one or more occupational transitions during the three-year follow-up period. "Lower ranked occupation" refers to cases in which the occupation held three years after entry has a lower ISEI score than the initial job. Bubble size reflects the proportion of GMI beneficiaries entering each occupation. Labels are displayed only for occupations accounting for at least 3% of observations. The sample includes GMI beneficiaries with at least three years of follow-up after entry into employment. A complete list of occupational mobility incidence and share of transitions by ISCO-2 occupations is reported in Annex Table 4.A.1 (Annex 4.A).

Source: OECD calculations using the employment register ERGANI and Greek Guaranteed Minimum Income (GMI) records.

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Combination of short employment spells and limited upward occupational mobility translates into modest and uneven earnings progression among GMI beneficiaries

While previous sections document transitions into and within employment, analysing earnings progression is essential to determine whether these transitions translate into sustained income growth and reduced economic vulnerability.

Table 4.1 shows that, among GMI beneficiaries who enter employment, job quality, as measured by hours worked and hourly wages,⁴ improves gradually over time for those who remain employed. Conditional on being employed, average weekly working hours increase from 26 to 29 hours, while real hourly wages rise from EUR 4.4 to EUR 4.7 over the three years following the first post-GMI job. At the same time, average days worked decline from 217 days in the first year to around 164-169 days thereafter, reflecting the prevalence of short employment spells (see Figure 4.2). While part of the improvement observed between the first and second year may reflect selection effects, i.e. beneficiaries in a worse job-match being more likely to exit employment, employment levels stabilise between the second and third year, as reflected in similar numbers of days worked. Over this period, further gains in working hours and real hourly wages are observed, suggesting that beneficiaries who sustain employment for longer durations also experience more favourable progression in job quality. However, these improvements remain modest and may partly reflect broader wage dynamics, including changes in minimum wages and price levels over the period, rather than solely within-job or within-worker progression.

Table 4.1. GMI beneficiaries attain improved job quality, but only among those who remain employed

Labour market indicators by time since first job (GMI beneficiaries)

Time since first job	Days worked	Average weekly hours	Average hourly wage In EUR, real terms (2015=100)
1 year	217	26	4.4
2 years	169	27	4.5
3 years	164	29	4.7

Note: T0 is defined as the month of the first registered job after GMI enrolment. The sample covers GMI beneficiaries. The analysis is restricted to individuals whose first post-GMI job occurs at least 3 years before the end of the observation window, allowing full 3-year follow-up.

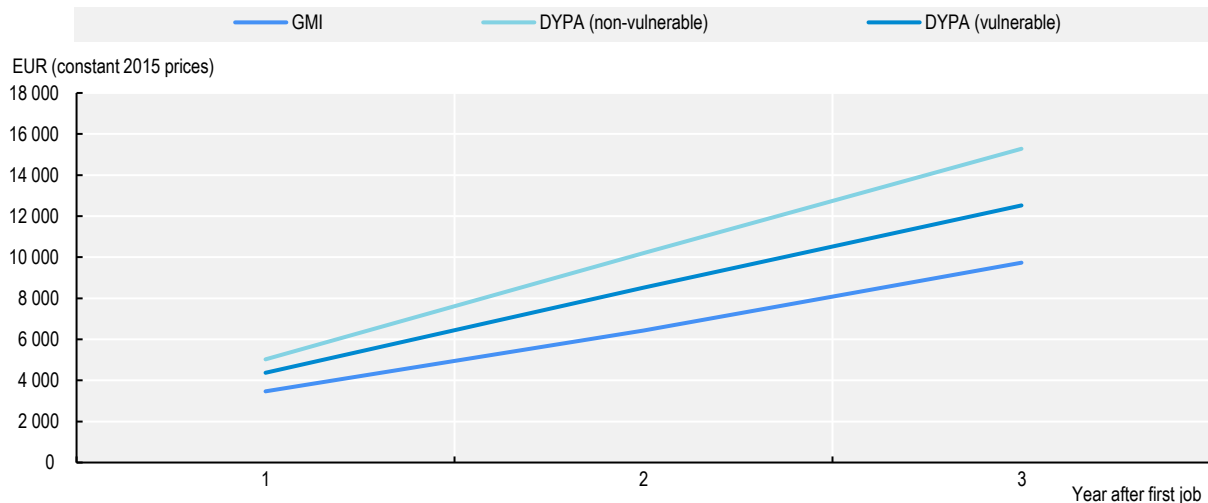
Source: OECD calculations using the employment register ERGANI, Greek Guaranteed Minimum Income (GMI) records and Harmonised Index of Consumer Prices from the ECB data portal.

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These dynamics are also reflected in cumulative earnings trajectories. Among GMI beneficiaries, cumulative earnings increase modestly over the three-year period following entry into employment. Figure 4.7 illustrates this pattern and places it in context by comparing outcomes with DYPA jobseekers. Even when classified as vulnerable, DYPA jobseekers consistently accumulate higher earnings than GMI beneficiaries.

Figure 4.7. Cumulative earnings increase modestly in the three years following first job

Cumulative earnings by time since first job, GMI beneficiaries and DYPA jobseekers



Note: For the GMI series, T0 is defined as the first registered job after GMI enrolment. The sample covers GMI beneficiaries only. For the DYPA series, T0 is defined as the first registered job after DYPA registration. The sample includes DYPA jobseekers registered in the same period, excluding individuals receiving GMI. "DYPA (vulnerable)" includes jobseekers identified by DYPA as facing physical, mental or social barriers to labour market participation, including those in special categories. "DYPA (non-vulnerable)" refers to all other registered jobseekers. The samples for the GMI and DYPA series are restricted to individuals whose first job occurs at least three years before the end of the observation window. Earnings are measured cumulatively over the three years following first employment and expressed in euros and real terms (2015 = 100).

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPA), the employment register ERGANI and Harmonised Index of Consumer Prices from the ECB data portal.

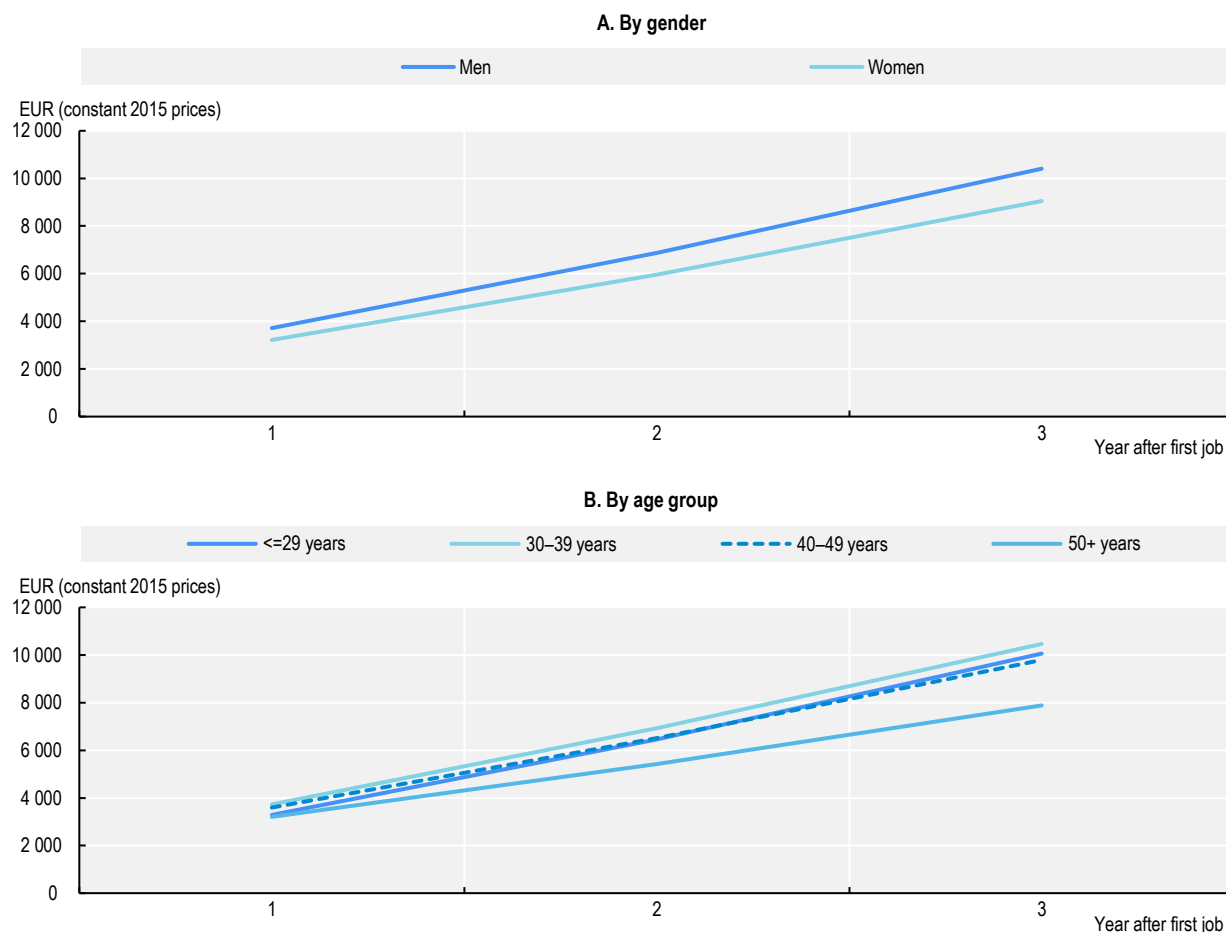
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Earnings trajectories also differ substantially across demographic groups among GMI beneficiaries (Figure 4.8), and broadly reflect the patterns observed in the wider labour market.⁵ A gender gap in cumulative earnings persists and widens throughout the follow-up period with men consistently accumulating higher earnings than women. After three years, men earn approximately EUR 10 400 cumulatively, compared to around EUR 9 000 for women. Earnings trajectories also vary significantly by age at job entry. Beneficiaries aged from 30 to 39 at the time they enter their first job have the strongest earnings progression, reaching over EUR 10 500 after three years. In contrast, older beneficiaries (aged 50 and above) experience substantially weaker earnings accumulation, with cumulative earnings remaining well below those of other age groups.

Overall, while some individuals achieve sustained earnings growth, a substantial share experiences interrupted employment trajectories, limiting their ability to accumulate income over time.

Figure 4.8. Earnings gaps by gender and age persist over time among GMI beneficiaries

Cumulative earnings by time since first job, by gender and age, GMI beneficiaries



Note: Starting time is defined as the month of the first registered job after GMI enrolment. The sample covers GMI beneficiaries and is restricted to individuals whose first post-GMI job occurs at least three years before the end of the observation window, allowing full follow-up. Earnings are measured cumulatively over the three years following first employment and expressed in euros and real terms (2015=100).

Source: OECD calculations using the employment register ERGANI, Greek Guaranteed Minimum Income (GMI) records and Harmonised Index of Consumer Prices from the ECB data portal.

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4.2.3. Participation in ALMPs

ALMPs can improve the matching of jobseekers with employers and support transitions into employment. For example, wage subsidies enable firms to hire jobseekers who may not yet have the required skills, while compensating for the initial period needed to reach full productivity, and training programmes can help jobseekers upskill or reskill to meet the requirements of a new job and support occupational mobility. Overall, ALMPs can help bridge the gap between jobseekers and employers and facilitate entry into employment. However, those furthest from the labour market, who may stand to benefit the most, are often harder to reach and less likely to participate in ALMPs, including in Greece (OECD, 2026^[4]).

This section examines the extent to which MIS beneficiaries participate in ALMPs. It considers the types of programmes they access and how their participation compares with that of other jobseekers. To do so, the data used in the previous section – linking information from DYPA, the GMI platform and ERGANI –

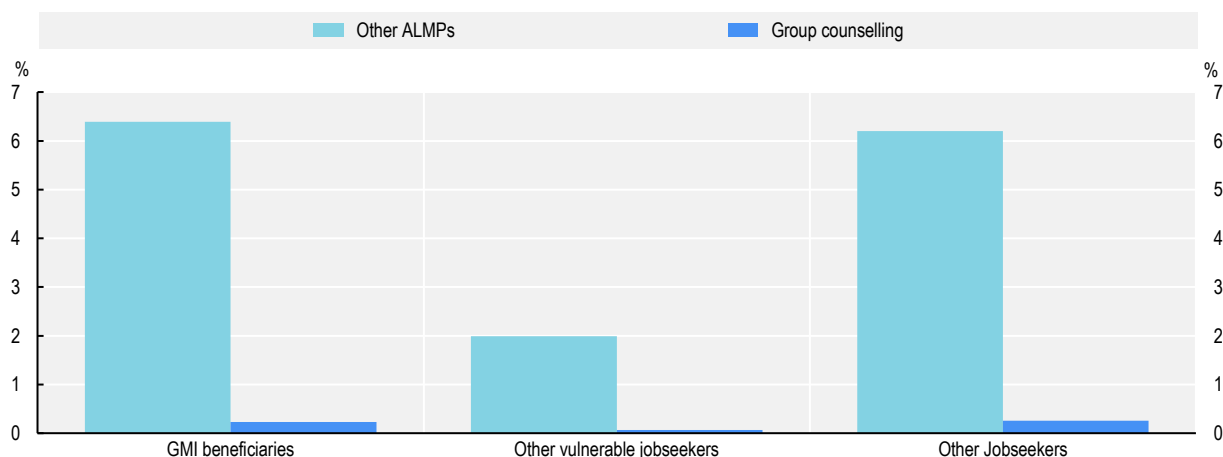
are augmented with data from DYPA's IIS on ALMPs. These data contain individual participation in four different ALMP measures: three different forms of employment incentives (subsidised employment, retention schemes of new jobs and work experience programmes⁶) and direct job creation (creation of new job positions). In addition, the data also include information on participation in ALMP services in form of group counselling. Group counselling covers practical aspects of job search and career development, such as preparing a CV, identifying and presenting skills, using social networks and preparing for interviews. Data on another key ALMP, training, are not included, as they are held in a separate register managed by the external institution Diofantos and were not made available for analysis at the time of carrying out this analysis.

The analysis is based on a sample of jobseekers registered with DYPA whose first observed registration occurred between 1 February 2017 and 31 December 2019. These individuals are followed over a five-year period from their initial registration. Linking these data with information from the GMI platform allows for the identification of three groups: GMI beneficiaries registered with DYPA, other (non-GMI) jobseekers flagged by DYPA as vulnerable, and all other jobseekers. Comparing these groups provides insights into how ALMP participation among GMI beneficiaries differs from that of other jobseekers who are neither GMI beneficiaries nor classified as vulnerable.

Figure 4.9 shows that GMI beneficiaries registered with DYPA participate in ALMP measures and group counselling at rates similar to other jobseekers, and substantially more often than other (non-GMI) vulnerable jobseekers. However, the figure also highlights that overall participation in ALMPs remains low: fewer than one in ten jobseekers participate in at least one ALMP (excluding training). Participation in group counselling is even lower (below 1%). This pattern is similar across GMI beneficiaries and other jobseekers.

Figure 4.9. Participation in ALMPs among GMI beneficiaries registered with DYPA is similar to that of other jobseekers

Participation rates in active labour market policies (ALMPs), by jobseeker type



Note: The category "Other ALMPs" includes employment incentives (subsidised employment, retention schemes of new jobs and work experience programmes) and direct job creation (creation of new job positions). The sample consists of individuals who registered with DYPA between 1 Feb. 2017 and 31 Dec. 2019, with participation observed for up to five years after registration. GMI beneficiaries include all jobseekers registered with DYPA who registered for the GMI either before or after their DYPA registration. Other vulnerable jobseekers refer to those flagged as vulnerable by DYPA who are not GMI beneficiaries. "Other jobseekers" includes all remaining jobseekers registered with DYPA.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek Public Employment Services (DYPA).

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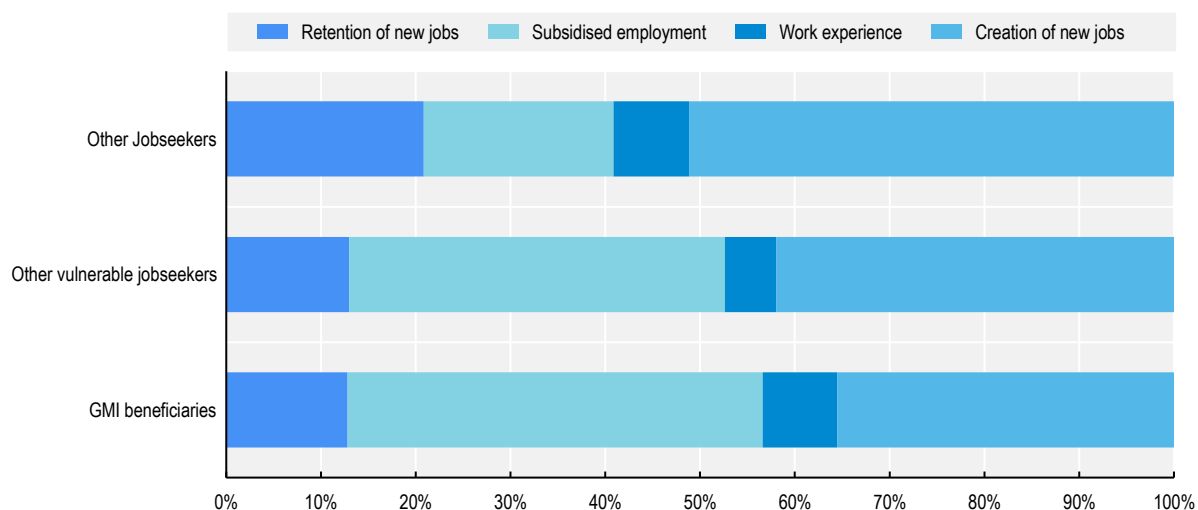
Although ALMP participation rates among GMI beneficiaries are comparable to those of other jobseekers, the types of ALMPs in which they participate vary substantially across groups (Figure 4.10). GMI beneficiaries are more likely than other jobseekers to participate in subsidised employment (similarly to other vulnerable non-GMI jobseekers), but less likely to take part in the creation of new job positions and job retention schemes for new jobs. Given that public works are typically targeted to those furthest from the labour market, such as the long-term unemployed, this pattern may appear surprising. However, evidence from counterfactual impact evaluations suggests that wage subsidies are often more effective than public works in supporting jobseekers access employment (OECD, 2024^[5]; OECD/European Commission, 2025^[6]), and may therefore provide stronger support for GMI beneficiaries.

Subsidised employment requires matching between jobseekers and employers, taking into account both the needs and barriers of GMI beneficiaries and the needs of employers. The relatively higher participation of GMI beneficiaries in subsidised employment reinforces the need for job matching tools that effectively match GMI beneficiaries with suitable jobs, also in the context of such programmes.

Regarding retention schemes for new jobs, the analysis in the previous section shows that GMI beneficiaries often experience non-linear career trajectories, characterised by occupational changes and alternating periods of employment, unemployment and inactivity. This suggests scope to expand the use of retention schemes of new jobs and, more broadly, in-work support to help GMI beneficiaries remain in employment and reduce repeated spells of unemployment or inactivity.

Figure 4.10. GMI beneficiaries registered with DYPA are more likely than other jobseekers to participate in subsidised employment

Share of jobseekers participating in different active labour market policies (ALMPs), by jobseeker type



Note: Participation in multiple ALMPs is taken into account. The sample consists of individuals who registered with DYPA between 1 Feb. 2017 and 31 Dec. 2019, with participation observed for up to five years after registration. GMI beneficiaries include all jobseekers registered with DYPA who registered for the GMI either before or after their DYPA registration. Other vulnerable jobseekers refer to those flagged as vulnerable by DYPA who are not GMI beneficiaries. "Other jobseekers" includes all remaining individuals registered with DYPA.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the Greek Public Employment Services (DYPA).

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An important question is whether GMI beneficiaries who participate in ALMPs experience different career trajectories from non-participants. While answering this question would require a rigorous counterfactual impact evaluation focussing specifically on GMI beneficiaries, which goes well beyond the scope of this

project, the available data allow for a descriptive assessment of whether ALMP participation is associated with better labour market outcomes.

Table 4.2 presents one of the outcomes analysed in the previous section, cumulative earnings, measured up to three years after entry into the first job, for GMI beneficiaries who have participated in an ALMP at some point. It shows that GMI beneficiaries who have participated in an ALMP have higher cumulative earnings over the three years following first employment than non-participants. This provides a first descriptive indication that ALMPs may support GMI beneficiaries' labour market outcomes. However, as noted above, this difference cannot be attributed solely to ALMP participation, as it may reflect the influence of other confounding factors. A rigorous counterfactual impact evaluation would therefore be required to establish causal effects.

Table 4.2. Participation in ALMPs is associated with better labour market outcomes for GMI beneficiaries

Cumulative earnings by active labour market policy (ALMP) participation status and jobseeker type

Years after job	GMI		Other vulnerable		Other job seekers	
	Non- participant	ALMP participant	Non- participant	ALMP participant	Non- participant	ALMP participant
1	EUR 2 790	EUR 3 452	EUR 4 354	EUR 4 855	EUR 5 038	EUR 4 833
2	EUR 5 310	EUR 6 544	EUR 8 485	EUR 9 613	EUR 10 223	EUR 9 822
3	EUR 7 973	EUR 9 925	EUR 12 482	EUR 14 140	EUR 15 302	EUR 14 977

Note: Jobseeker type is defined at the individual level as follows: "GMI" includes individuals who at one point received GMI; "Other vulnerable" includes individuals never in GMI but identified as vulnerable at any point; "Other job seekers" includes all remaining individuals. "Years after job" refers to time since the first recorded employment following registration with DYPA. ALMP participants are individuals who participated in at least one ALMP during the observation window. Values represent cumulative earnings over time expressed in real terms (2015 = 100).

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek Public Employment Services (DYPA) and Harmonised Index of Consumer Prices from the ECB data portal.

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4.2.4. Reliance on income support gradually declines, yet MIS beneficiaries in Greece still need more tailored support to secure more stable and better-quality jobs

This chapter examined the long-term labour market and welfare trajectories of GMI beneficiaries in Greece, focussing on employment sustainability, occupational mobility, earnings progression and participation in ALMPs. By following beneficiaries over several years after registration for the GMI, the analysis provides insights into whether labour market entry leads to more stable and improving outcomes over time, and where additional support is most needed. The findings presented in this chapter should be interpreted within the context of a significantly improved labour market environment in Greece compared to previous years, characterised by rising employment rates, declining unemployment and sustained labour market recovery. Remaining challenges therefore include both the successful and sustainable labour market integration of the most vulnerable groups and the improvement of the overall labour market performance.

Based on the analysis, the key findings for Greece are as follows:

- Reliance on GMI declines substantially over time, alongside a gradual movement into employment. Four years after entry into the scheme, only around one in five beneficiaries continue to rely on GMI, while a growing share transitions into employment, either with or without continued benefit receipt. This highlights both the potential for labour market integration and the need to support those who struggle to make or sustain this transition. Digital tools could support pathways into

work, while also assisting those already employed in progressing towards more stable and better-quality jobs.

- Most beneficiaries who enter employment do so from registered unemployment. Digital solutions should therefore be closely integrated with DYPA processes and data, supporting job matching and career guidance at key transition points.
- Employment spells following GMI registration tend to be short, pointing to the need for support beyond initial job placement. Many beneficiaries experience early exits from employment, particularly during the first year after job entry. These patterns reflect, in part, the characteristics of the jobs and sectors in which beneficiaries are employed but also the barriers and vulnerabilities they face in sustaining employment. Together, these factors the importance of career progression tools that focus not only on access to jobs, but also on employment retention and stabilisation over time.
- High occupational mobility does not systematically translate into upward progression. More than half of GMI beneficiaries who enter employment change occupation within three years, but most transitions occur at similar status levels. While some horizontal moves may be associated with re-skilling, a subset of beneficiaries experience frequent mobility combined with limited or downward mobility. These patterns point to groups that may require more intensive and sustained re-skilling and up-skilling support even after labour-market entry.
- Limited employment stability and lack of upward occupation mobility translate into modest and uneven earnings progression, particularly for older beneficiaries. Among those who remain employed, job quality improves gradually in terms of working hours and wages. However, interrupted employment trajectories limit cumulative earnings growth for many beneficiaries, contributing to persistent income vulnerability, especially among older workers.
- GMI beneficiaries registered with DYPA participate in ALMPs at rates comparable to other jobseekers and more often than other vulnerable groups, particularly in subsidised employment programmes. Nevertheless, participation in ALMPs remains low across the different groups of jobseekers. Descriptive evidence suggests that beneficiaries who participate in ALMPs tend to experience stronger subsequent earnings outcomes, highlighting the potential for ALMPs to support more stable employment pathways, and the importance of embedding ALMP and training recommendations within digital career guidance tools.

4.3. While activation of MIS recipients in Belgium through Article 60 is an important step, it does not always lead to sustainable employment

This chapter analyses the longer-term employment trajectories of Belgian minimum income scheme (MIS) beneficiaries (*Revenu d'intégration / leefloon*), with a particular focus on their participation in active labour market policies (ALMPs) and, in particular, the Article 60 programme. It complements the analysis in the preceding chapter by moving beyond initial exits from MIS to document how beneficiaries fare over time in the labour market and how programme participation shapes the stability, quality, and progression of their employment.

Understanding these longer-term dynamics is of interest both from policy and data perspective. From a policy perspective, Belgium's Article 60 programme has been operating for nearly five decades and absorbs substantial CPAS resources. From a data perspective, the availability of CBSS' linked administrative records spanning a ten-year intake window creates an opportunity to document medium-term trajectories for an unusually large and nationally representative cohort of MIS beneficiaries – an opportunity that has not previously been taken up systematically at this scale. The analysis therefore aims to inform both the design of digital career recommendation tools (Chapter 5) and broader policy debates on the activation of the most disadvantaged jobseekers in Belgium.

The chapter is organised into three main sections:

- Section 4.3.2 charts the medium- and long-run trajectories of MIS beneficiaries, describing patterns of benefit receipt, participation in ALMPs (including Article 60), and transitions between MIS, unemployment insurance benefits and employment over three years. It highlights how these trajectories differ across regions, between socio-demographic groups and by prior labour market attachment.
- Section 4.3.3 examines beneficiaries' longer-term outcomes in work, documenting their sectoral and occupational mobility, earnings dynamics, and risks of returning to joblessness, and comparing the trajectories of MIS beneficiaries to those of unemployment benefit recipients with similar characteristics.
- Section 4.3.4 finally then zooms in on ALMP participation, with a particular emphasis on Article 60, analysing how different participant groups fare after their work placement and comparing them to unemployment beneficiaries who have not participated in Article 60.

4.3.1. Data used and analytical approach

This analysis draws on aggregate tables produced from administrative data compiled by the CBSS, focussing on individuals entering MIS and following their trajectories over one and three years after entry. As in Chapter 3, the tables map recipients' profiles and pathways across key characteristics such as region, age, gender, household composition, migration background and education. However, the emphasis here is on medium-term dynamics in benefit receipt, participation in ALMPs and movements into employment.

A distinctive feature of this chapter is the use of the same administrative infrastructure as carried out in Chapter 3 to identify and follow MIS beneficiaries who participate in Article 60 programmes, allowing a systematic comparison of their trajectories with those of otherwise similar beneficiaries who do not enter such schemes. For both groups, outcomes are observed one year and three years after MIS entry, making it possible to assess not only initial exits into employment or other benefits but also the stability of these exits over time, including the risk of returning to MIS or unemployment benefits. As before, the CBSS cross-tabulations are constructed from linked microdata from CPAS, regional public employment services and national social security registers and are complemented by recent statistical reports and research on Article 60 participation in Belgium.

For this analysis, the CBSS generated purpose-built cross-tabulations from linked microdata, constructing a cohort of all new individual spells of minimum income receipt (or Article 60 placement) in any quarter between 2011 and 2020. Spanning a ten-year intake window ensures that the sample is large enough to permit reliable breakdowns by socio-demographic subgroups while protecting the confidentiality of individual records. Outcomes are tracked at two fixed time horizons: four quarters (one year) and 12 quarters (three years) after the start of each spell, enabling an assessment of both short-term transitions and the durability of any change in status over the medium term.

The use of aggregate cross-tabulations rather than individual-level microdata reflects the access conditions under which these data were made available for this project: the CBSS provided pre-specified tabulations rather than a research extract of the underlying microdata. This approach is well-suited to tracking population-level trajectories and comparing outcomes across clearly defined subgroups, but it carries inherent limitations. Because the analysis is based on grouped summaries, causal inference – for instance, whether Article 60 participation itself improves employment chances relative to a valid counterfactual – is not possible. Patterns reported in the comparison between Article 60 and non-Article 60 unemployment benefit recipients are therefore descriptive: they document differences in observed outcomes between two groups that differ in their prior trajectories, rather than estimating a programme effect.

Complementary insights are drawn from secondary sources, including statistical reports from the Federal Public Service for Social Integration (SPP IS/POD MI), regional monitoring reports published by the VDAB, Le Forem, and Actiris, and published academic research on MIS trajectories and Article 60 in Belgium.

4.3.2. Long-term career pathways of MIS beneficiaries

Longitudinal evidence on MIS beneficiaries in Belgium and other OECD countries shows that entry into social assistance often marks the beginning of a complex, multi-year sequence of benefit receipt, ALMPs and intermittent work, rather than a short, one-off spell (Immervoll, Jenkins and Königs, 2015^[7]; Königs, 2017^[8]). Evidence from Belgium is consistent with this picture: a longitudinal study tracking a cohort of social assistance entrants in 2004-2005 over four years found that while the majority of beneficiaries ultimately exited the scheme, only around 12% achieved durable employment within two years of entry, and repeated re-entry following short work episodes was common, particularly among those with a migration background (Carpentier, Neels and Van den Bosch, 2017^[9]; Carpentier, Neels and Van den Bosch, 2014^[10]). Many recipients experience repeated movements between MIS, unemployment benefits and low-paid or unstable jobs, reflecting both structural barriers in the labour market and the limited capacity of existing instruments to secure durable exits from social assistance.

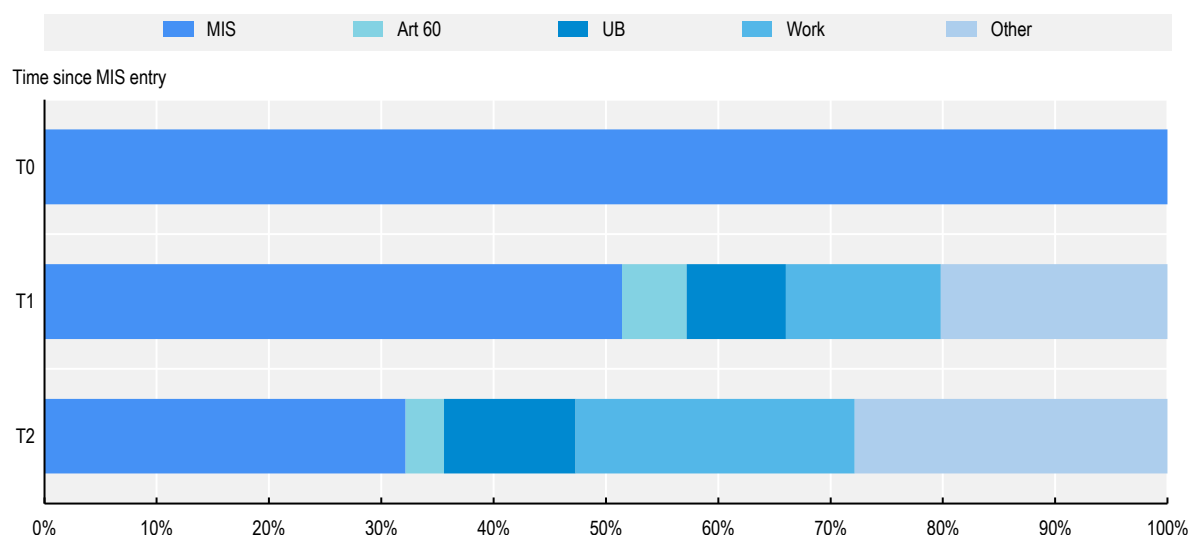
Against this backdrop, this chapter provides updated evidence on the trajectories of MIS beneficiaries in Belgium, examining how new entrants progress over the medium term and the extent to which they move into employment, contributory benefits or other activities three years after first claiming support.

Figure 4.11 summarises how new MIS entrants move across main labour-market and benefit states, looking at their benefit and employment status at two points in time after entry (T0): one year later (T1) and three years later (T2). By construction, at T0 (the moment of entry), all people in the sample are in the MIS scheme, i.e. the dark-blue MIS bar reaches 1. By T1 (one year after entry), the dark-blue MIS bar has shrunk, showing that around half of the cohort still depends on minimum income benefits, while the remaining half has moved into other situations. About 14% of former MIS beneficiaries are at T1 in employment, followed by roughly 9% who are receiving unemployment benefits (UB), and around 6% who participate in the Article 60 programme. Together, these figures indicate that a non-negligible share of former MIS beneficiaries has either entered employment after one year, or is covered by insurance-based unemployment benefit schemes.

By T2 (three years after entry), the MIS share has contracted further to about one-third, signalling a gradual but incomplete exit from MIS for the cohort. The shares in unemployment insurance (12%) and employment (25%) grow compared to T1, indicating that more beneficiaries have transitioned into contributory benefits or work over the medium term. At the same time, the “Other” segment expands, suggesting that an increasing fraction of the cohort moves into states outside both MIS and standard employment or unemployment insurance, such as inactivity, other social programmes, or unobserved statuses.

Figure 4.11. Roughly 1 in 3 MIS recipients remain on the benefit three years after signing up

Activity status of new MIS spells, 4 quarters (T1) and 12 quarters (T2) after registering, 2011-2020



Note: T0 denotes the quarter in which individuals first enter MIS. T1 shows their main status one year after entry, and T2 three years after entry. Shares are expressed as proportions of the original MIS entry cohort and sum to 1 (100%) at each point in time. “MIS” refers to continued receipt of minimum income, “Art 60” to participation in Article 60 programmes, “UB” to receipt of unemployment insurance benefits, “Work” to registered employment, and “Other” to all remaining observed statuses (including inactivity and other benefits).

Source: OECD calculations based on administrative data received from the Crossroads Bank for Social Security (CBSS).

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Three years after registration, persistence in MIS declines markedly across all groups compared with the one-year benchmark (see Chapter 3), but important differences across demographic profiles remain (Figure 4.12). Overall, around one-third of beneficiaries are still receiving the MIS after three years (as indicated by the red line), with some gaps narrowing and others becoming more pronounced over time:

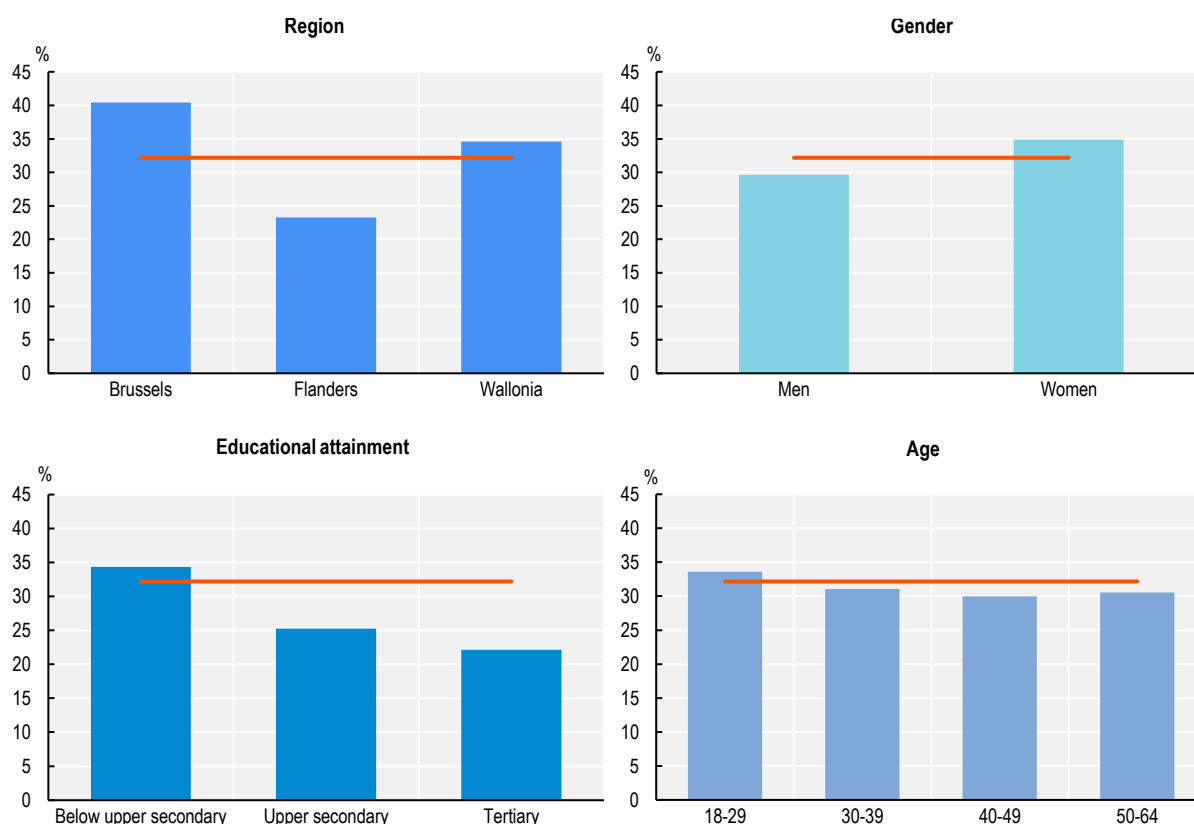
- **Regional disparities** persist, although at lower levels than one year after registering for MIS. Beneficiaries in Brussels (40.5%) and Wallonia (34.6%) continue to display higher persistence on MIS than the national average, while those in Flanders (23.2%) are substantially less likely to remain in the scheme. Compared with the one-year results, the relative situation in regions is unchanged, but the gap between Brussels and Flanders remains sizeable even three years after entry.
- **Gender differences** remain modest but slightly more pronounced than after one year. Women are more likely to stay on the MIS three years after registration (34.9%) than men (29.6%). While the difference was limited after one year, it appears to widen slightly over time.
- **Educational attainment** continues to be strongly associated with lower longer-term persistence. Individuals with at below upper secondary education (ISCED 0-2) are more likely to remain on the MIS after three years (34.3%) than those with upper secondary or post-secondary non-tertiary qualifications (ISCED 3-4) (25.2%) or tertiary education (ISCED 5-8) (22.1%). Compared with the one-year benchmark, educational gradients appear to strengthen over time, as higher-educated recipients exit the scheme more rapidly.
- **Age-related differences** become less marked three years after entry. Young adults aged 18-29 still show slightly higher MIS persistence (33.6%) than other age groups, but rates are broadly similar across those aged 30-39 (31.0%), 40-49 (30.0%) and 50-64 (30.5%). Compared with the one-year results, age gradients flatten over time, suggesting more similar long-term trajectories across age groups once initial exits have occurred.

Further analysis also revealed that:

- *Household composition* remains a modest differentiating factor, with persistence rates converging somewhat compared with one year after entry. Beneficiaries living with others (45.0%) and those living with dependent children (43.2%) show the highest persistence after three years, while individuals living alone remain slightly less likely to stay in the scheme (40.2%). The relatively lower persistence observed among single parents after one year is no longer evident at the three-year horizon.
- Differences by *migration background* remain pronounced. First-generation foreign-born recipients continue to exhibit the highest persistence in the MIS (48.2%), followed by second-generation recipients (44.4%) and first-generation native-born individuals (44.0%). In contrast, third-generation or later recipients are less likely to remain on the MIS after three years (37.2%). While persistence declines for all groups compared with the one-year benchmark, gaps by migration background remain substantial over time. These patterns are consistent with longitudinal evidence for Belgium showing that migrants take longer to exit social assistance, face higher re-entry risks after short work episodes, and are less likely to achieve durable employment – findings that hold even after accounting for educational attainment and household composition (Carpentier, Neels and Van den Bosch, 2017^[9]).

Figure 4.12. Persistence in MIS differs across groups three year after registering

Share of MIS beneficiaries who remain in MIS three year after registering, all new spells between 2011-2020



Note: The horizontal line indicates the population share of beneficiaries who remain in the minimum income scheme (MIS) after three years. Educational attainment is based on International Standard Classification for Education (ISCED) codes (0-2, 3-4 and 5-8 respectively).

Source: OECD calculations based on administrative data from the Crossroads Bank for Social Security (CBSS).

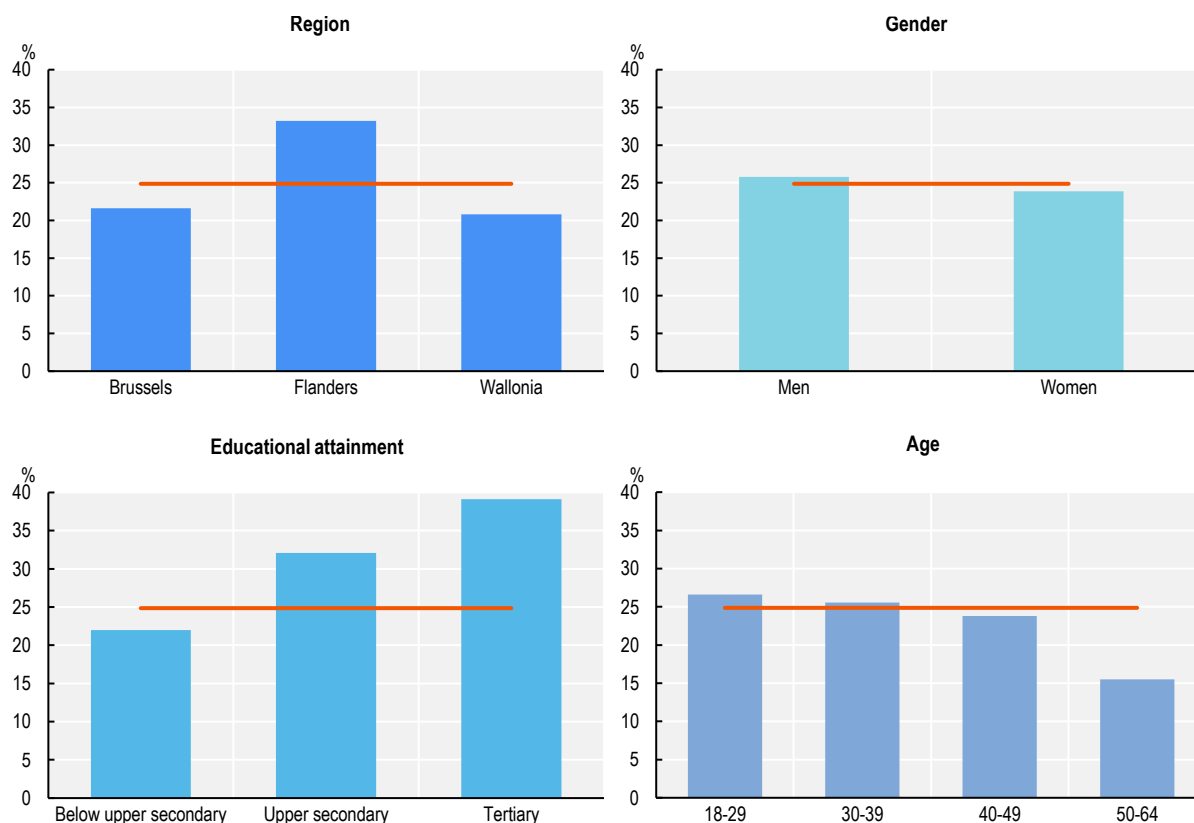
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Three years after registering for the MIS, transitions into regular employment increase substantially compared with the one-year benchmark, though also here marked differences across groups persist (Figure 4.13). On average, around one-quarter of recipients have entered regular employment by this point, with outcomes continuing to vary strongly by region, education and age, while gender differences remain limited. These patterns closely mirror those observed for persistence in MIS (Figure 4.12).

- *Regional disparities* widen over time. In Flanders the share of beneficiaries who access regular employment within three years is the highest (33.2%). In contrast, labour market integration rates of former MIS remain considerably lower in Brussels (21.6%) and Wallonia (20.8%). Compared with one year after entry, all regions record higher employment rates, but the relative advantage of Flanders becomes more pronounced over the longer horizon.
- *Educational attainment* remains a strong predictor of successful labour market integration, with gaps increasing over time. Nearly four in ten beneficiaries with higher education (ISCED 5-8, 39.1%) transition into regular employment within three years, compared with 32.1% among those with mid-level qualifications (ISCED3-4) and 22.0% among those with the lowest levels of education (ISCED 0-2). While education-related differences are already visible after one year, they widen further as higher-educated recipients continue to exit the MIS more rapidly.
- *Gender differences* remain small. Men (25.8%) are only slightly more likely than women (23.9%) to enter regular employment three years after registration, suggesting that gender plays a limited role in shaping employment outcomes over both the short and medium term.

Figure 4.13. Employment outcomes vary most strongly by region and level of educational attainment

Employment rates of MIS beneficiaries by characteristic, after 12 quarters, all new spells between 2011-2020



MIS: minimum income scheme.

Note: The horizontal line indicates the population share of beneficiaries who are in regular employment after three years. Educational attainment is based on International Standard Classification for Education (ISCED) codes (0-2, 3-4 and 5-8 respectively). Employed in formal employment.

Source: OECD calculations based on administrative data from the Crossroads Bank for Social Security (CBSS).

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4.3.3. Employers who hire MIS beneficiaries are predominantly in the service sector

Service sector jobs are the main entryway to employment for MIS beneficiaries

The sectoral distribution of jobs taken up by MIS beneficiaries remains strongly service-oriented both one year and three years after registration, although some shifts emerge over time (Figure 4.14). At both horizons, employment is concentrated in service activities, with only limited participation in construction and goods-producing sectors.

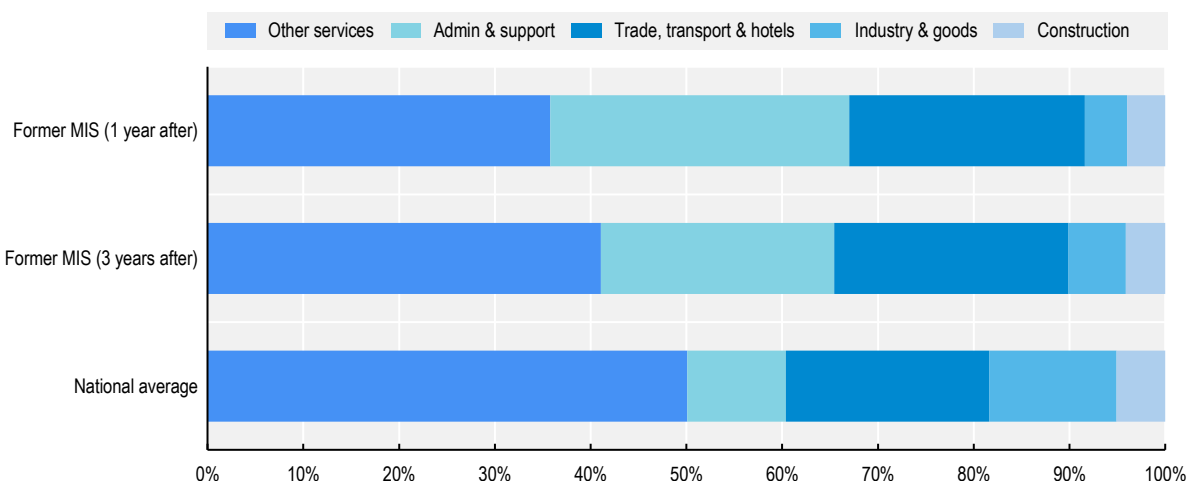
One year after entry, employment among former MIS recipients is dominated by “other services” and administrative and support services, together accounting for a large majority of observed job matches. Three years after entry, this overall pattern persists, but the relative weight of sectors evolves slightly. The share of employment in “other services” increases, while administrative and support services represent a smaller, though still substantial, proportion of placements. Trade, transport and hospitality remain an important source of employment at both horizons, with only modest changes over time. By contrast, construction and industry and goods production continue to absorb only a small minority of MIS beneficiaries, even three years after registration.

These patterns suggest that while a growing number of beneficiaries enter employment over time (Figure 4.11), longer-term integration does not substantially diversify the sectors in which jobs are found, though a small increase in the share of other services can be observed. Instead, transitions into work continue to rely heavily on service activities characterised by relatively low formal entry requirements and high labour turnover. The persistent prominence of administrative and support services points to the sustained role of intermediary functions such as temporary agency work, cleaning and facility management in facilitating labour market entry, particularly in the earlier phases following registration.

Compared with the structure of employment in the Belgian economy as a whole, MIS beneficiaries remain overrepresented in administrative and support services and underrepresented in construction and industry at both time horizons. The limited expansion into goods-producing sectors over time indicates that barriers related to skills, certification requirements or working conditions are not fully overcome even several years after entry into the MIS. These patterns closely mirror those documented in Chapter 3 at the one-year horizon, confirming that the sectoral footprint of MIS employment is not simply an artefact of short observation windows: concentration in service activities with low formal entry requirements persists over the medium term. The reliance on administrative and support services, which notably include temporary agency work and cleaning, is consistent with the broader literature on minimum income beneficiaries in Belgium, which highlights these sectors as the primary gateway to employment while noting their association with short contract durations and limited upward mobility (Carpentier, Neels and Van den Bosch, 2014^[10]).

Figure 4.14. Industries in which former MIS beneficiaries find employment are mainly in the service sector

Sectors of employment 12 months and 36 months after MIS (2011-2020), benchmarked against 2024 national averages



Note: Data for former minimum income scheme (MIS) spells between 2011-2020 and tracks their status 1 year and 3 years after registration. Source: OECD calculations based on administrative data from CBSS, and StatBel Statistics on establishment units <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units> for the national average.

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... and most MIS beneficiaries who find employment do manual jobs

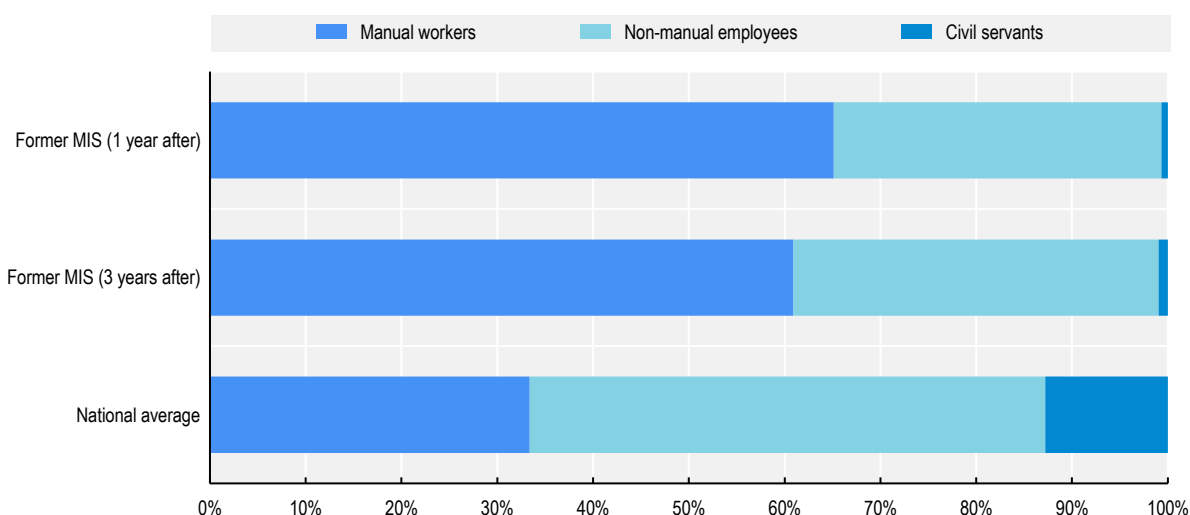
The type of jobs accessed by MIS beneficiaries further underlines the segmented nature of post-MIS employment (Figure 4.15). Both one year and three years after registration, manual occupations account

for a large share of employment, particularly among those entering work shortly after exit from the scheme. Over time, however, the composition of employment shifts modestly towards non-manual positions.

Three years after entry, non-manual employment represents a larger share of observed jobs than at the one-year mark, suggesting some upward movement or delayed access to less physically demanding roles. Civil servant positions remain marginal at both horizons, indicating that transitions into public sector employment are rare for former MIS recipients. Overall, while longer time horizons are associated with higher employment rates (Figure 4.11), the distribution of job types points to continued concentration in lower-skilled and often less secure forms of work, with only small diversification over time.

Figure 4.15. The occupational structure of employment among former MIS is heavily skewed towards manual work

Types of occupations 12 and 36 months after MIS entry (2011-2020), benchmarked against 2024 national averages



MIS: minimum income scheme.

Source: OECD calculations based on administrative data from CBSS, and StatBel Statistics on establishment units <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units> for the national average.

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4.3.4. Participation in ALMPs: Trends and trajectories of Article 60 beneficiaries

Belgium's labour market policy encompasses a broad suite of ALMPs delivered by regional PES, designed to help jobseekers move into sustainable employment. Across the country, regional PES such as Actiris in Brussels, VDAB in Flanders, Forem in Wallonia, and ADG in the German-speaking Community provide a mix of job search assistance, training and upskilling, employer engagement and recruitment incentives for unemployed workers, including tailored vouchers, counselling, and placement services. Some programmes, such as locally organised training vouchers or employer hiring subsidies, are explicitly targeted at long-term jobseekers or young people or intended to address specific skill gaps in the labour market (e.g. training vouchers and ICT or skills cheques in Brussels).

Research on Belgian CPAS services suggests that, in practice, co-ordination between local welfare offices and regional employment services remains uneven. CPAS case workers differ significantly in how they assess work readiness and which activation pathways they offer to clients, partly reflecting resource and capacity differences across municipalities (De Wilde and Marchal, 2019^[11]).

Within this diverse ALMP ecosystem, the Article 60 programme occupies a central role for recipients of the MIS in particular. Unlike most PES measures, which are generally aimed at the unemployed registered with a regional employment service, Article 60 is specifically embedded in the social assistance framework: it is implemented by CPAS and support MIS recipients by offering subsidised work experience and, crucially, giving them a chance to acquire the social insurance contributions needed to establish eligibility for unemployment benefits. While other ALMPs such as subsidised job incentives or training are important for the job search and upskilling of a broad set of unemployed individuals, Article 60 is one of the main tools available to support and activate the most disadvantaged MIS beneficiaries, helping them move off social assistance and into the unemployment insurance system and, subsequently, into employment. Article 60 is the principal activation instrument available to CPAS, accounting for around 14% of all MIS trajectories in Flanders and approximately 23 000 placements nationally in recent years, by far the largest single activation measure directly operated by welfare offices (Caldarini, 2021^[12]; Union des Villes et Communes de Wallonie – Fédération des CPAS, 2023^[13]). Given its specific importance for MIS beneficiaries, the remainder of this section focusses on Article 60 when analysing ALMP participation among the MIS population, while acknowledging the complementary role of PES-delivered measures for beneficiaries who have transitioned to unemployment insurance.

Design and eligibility of the Article 60 programme

Belgium's Article 60 (Art. 60 §7 of the *Organic CPAS/OCMW law*) is a subsidised work-experience programme run by local CPAS first introduced in 1976 (Ministère de l'Intégration Sociale, 2024^[14]). It allows a CPAS to place a MIS recipient into a job in the public or social economy under a fixed-term contract, with the aim of rebuilding that person's contributions and eligibility for unemployment insurance.

Article 60 work can be organised in two different ways. One option is that the beneficiary is employed directly by the municipal welfare centre in roles supporting CPAS operations, including administrative functions, maintenance, community services, etc. Alternatively, the CPAS can place the programme participant for work into a “host” organisation or employer. This can include:

- Municipal administrations or local government services other than the CPAS,
- Public utilities and water companies,
- Hospitals and health services,
- Educational institutions (schools, libraries, training centres),
- Non-profit associations and civil society organisations or
- In some regions, semi-public companies and social economy enterprises.

Also in this case, the CPAS remains the legal employer, “lending” the worker to the “host employer”, with wages and social-security contributions being fully paid by the CPAS.

The host employer enters into a service agreement with the CPAS, committing to provide structured work experience and, typically, on-the-job skills development. Payment for the worker's services is negotiated between the CPAS and the external user. As of 2025, such placements can no longer be free, signalling a policy shift toward cost-sharing for subsidised employment (ADAS, 2021^[15]; Bruxelles-J, 2025^[16]). The work contract typically lasts until the worker has accrued the minimum days of employment required to qualify for unemployment benefit, usually a maximum of two years, though frequently shorter. In the meantime, Article 60 provides a subsistence wage – usually around the minimum wage, on-the-job experience and the contributions needed to build the entitlements that will eventually permit the programme participant to transition off social assistance into the unemployment insurance system.

Article 60 contracts are available only to persons already receiving the CPAS-administered MIS. In practice, CPAS counsellors refer welfare recipients – often long-term unemployed individuals or people with disabilities – into Article 60 placements. Recent practice (e.g. in Brussels) also allows Ukrainian

refugees under temporary protection who lack other entitlements to take Article 60 positions (safe.brussels, 2025^[17]).

In sum, Article 60 is an ALMP embedded within Belgium's minimum income policy, that requires recipients to work. Importantly, its primary objective is to restore social insurance rights (qualification for unemployment benefits), which are generally higher than social assistance payments and can then act as a springboard back to stable employment (including through access to PES support).

Article 60 participation increased rapidly since the early 2000s

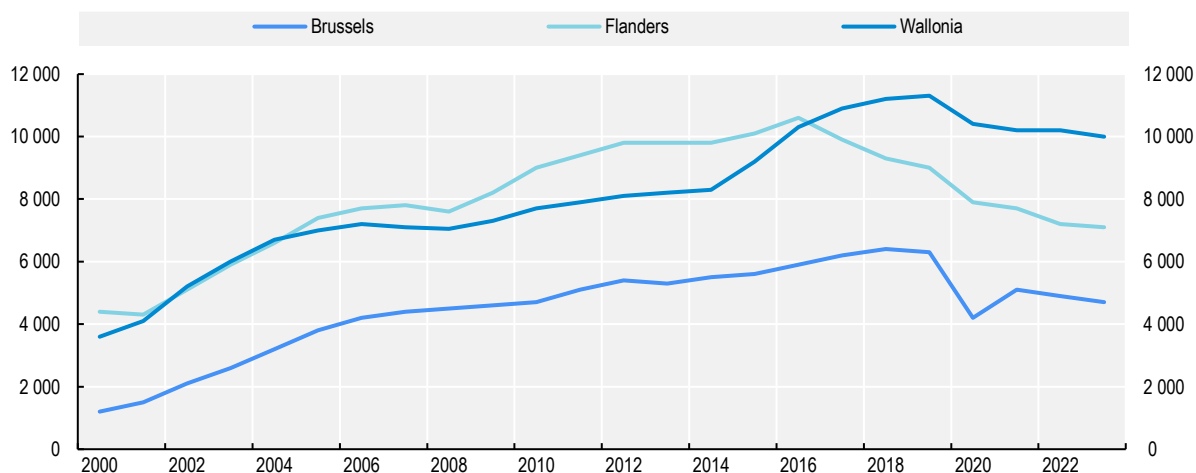
The Article 60 programme experienced rapid expansion in the early 2000s. The number of placements nearly doubled between 2000 and 2004, reflecting both a rise in beneficiary numbers, driven by growing caseloads and a stronger policy emphasis on activation. From 2004 onwards, programme participation stabilised, with annual placements slightly declining and then plateauing at around 19 000 – 20 000 nationally.

Regional differences are pronounced. Wallonia has consistently accounted for 40-45% of Article 60 placements. This over-representation reflects the region's persistently higher unemployment and inactivity rates.

Brussels-Capital, by contrast, has seen the most substantial proportional growth. Its share of national placements roughly double from between 2000 and 2008, from 12% to 23%, with growth further accelerating in subsequent years. This trend is linked to an expanding EU migrant and refugee population in Brussels, which drove both subsistence wage caseloads and demand for Article 60 placements.

Figure 4.16. Article 60 placements rapidly increased in the early 2000s across all regions

Annual programme participants, 2000-2023



Note: Regional participation figures were reconstructed from published administrative charts.

Source: SPP Intégration Sociale Baromètre de l'intégration sociale (SPP-IS) – Article 60 §7 placements by region, administrative data, stat.mi-is.be.

StatLink  <https://stat.link/yzdjht>

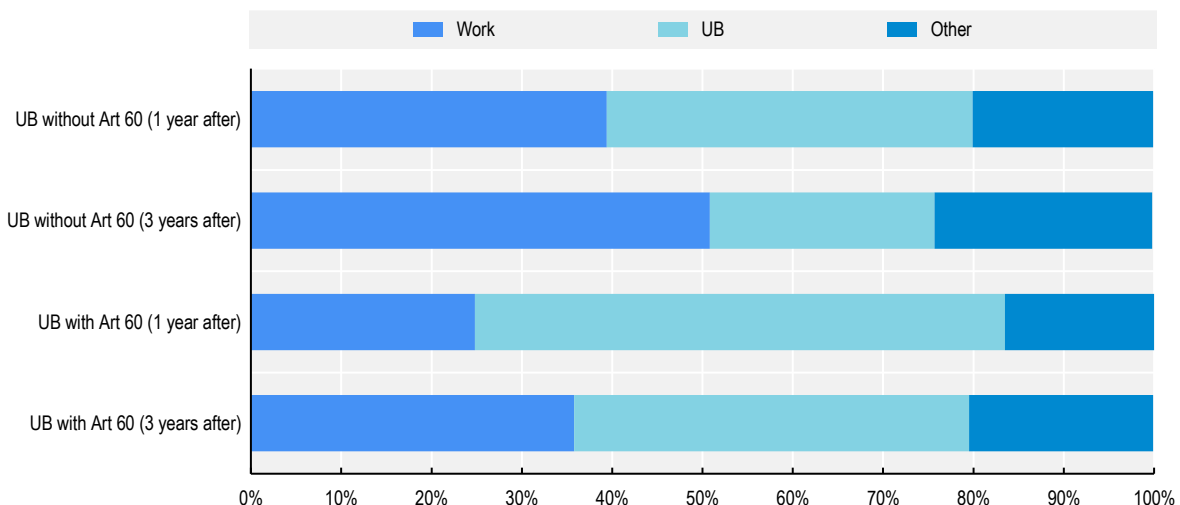
Comparison between UB beneficiaries with and without previous participation in Article 60

The analysis compares unemployment benefit (UB) recipients who entered UB through participation in the Article 60 programme with those who entered through other channels.

UB beneficiaries who previously participated in the Article 60 programme have substantially lower employment rates than those without prior programme participation (Figure 4.17). One year after entering UB, approximately 45% of non-Article 60 participants are employed, compared to only 25% of prior Article 60 participants. This gap persists over time: three years later, around 50% of non-participants are in work versus 35% of prior participants. Correspondingly, beneficiaries with Article 60 experience remain on unemployment benefits at higher rates. Three years after UB entry, roughly 45% of prior participants still receive benefits, compared to 35% of those without Article 60 history. The share in “Other” status (including inactivity or other benefit schemes) is broadly comparable across both groups at approximately 15-20%.

These patterns suggest that prior Article 60 participation is associated with less favourable labour market trajectories, though the gap narrows slightly between the one- and three-year marks as some prior participants transition into employment. It is important to note that this comparison is by design not a causal impact assessment. Article 60 targets the most disadvantaged MIS recipients: those with weak or absent contribution histories and significant barriers to employment. Meanwhile, “standard” unemployment benefit entrants have demonstrated a stronger prior attachment to the labour market, fulfilling work history requirements. The lower employment rates observed among former Article 60 participants therefore partly reflect this negative selection into the programme rather than any effect of the programme itself. The aim of this study is to document where these two populations end up and thus not serve as a robust impact evaluation.

Figure 4.17. Unemployment benefit (UB) recipients with prior Article 60 participation show lower employment rates one and three years after UB entry



Note: Data for former minimum income scheme (MIS) spells between 2011-2020 and tracks their status 1 year and 3 years after registration.
Source: OECD calculations based on administrative data from the Crossroads Bank for Social Security (CBSS).

StatLink  <https://stat.link/ohmypo>

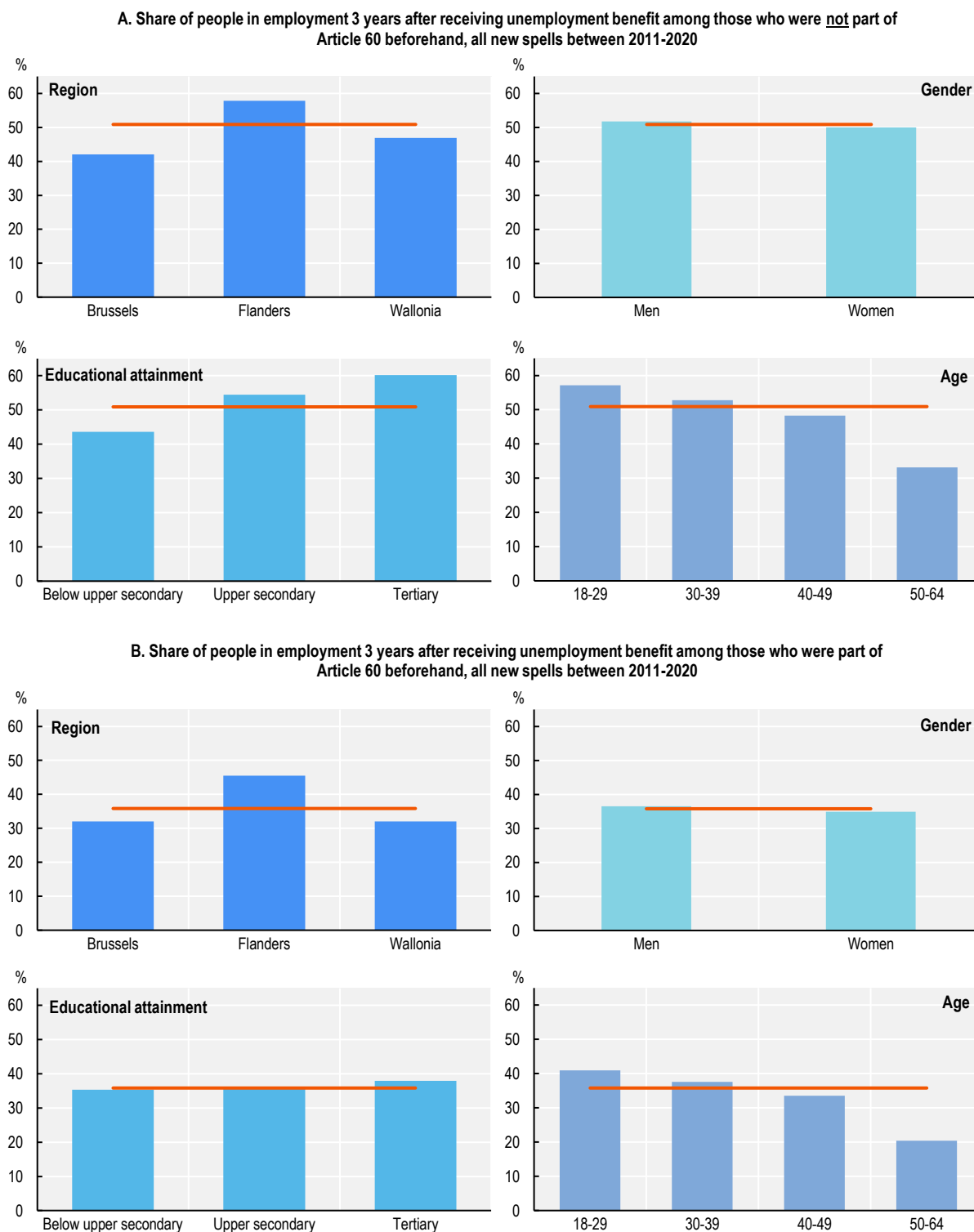
Unemployment benefit recipients with prior Article 60 experience face weaker employment outcomes

The following section compares transitions into employment three years after entering unemployment benefits, comparing recipients with and without prior Article 60 experience:

- *Regional variation* is particularly pronounced. Employment is highest in Flanders (57.8%), followed by Wallonia and Brussels, suggesting that regional labour market conditions strongly shape re-employment prospects. Prior Article 60 participants show a similar regional ordering, though at a lower level (45.5% in Flanders), with gaps of around 10-12 percentage points (p.p.) across all regions.
- *Gender differences* are modest among both groups. Men and women without Article 60 experience show near-identical employment rates (51.8% vs. 50.0%), and the same holds for prior participants (36.5% vs. 34.9%). Gender appears to play little role in shaping employment outcomes in either group.
- *Educational attainment* shows a clear positive gradient among standard UB recipients, with higher-educated beneficiaries considerably more likely to find employment after three years. Notably, this gradient is largely absent among prior Article 60 participants, who show similar employment rates across education levels (35-38%). This suggests that Article 60 may be particularly effective at supporting the labour market participation of lower-educated groups, narrowing the education gap relative to standard UB recipients.
- *Age* emerges as the most consistent factor across both groups. Younger beneficiaries (18-29) have the highest employment rates in both panels, and rates decline steadily with age. Among those aged 50-64, only 20.4% of prior participants are employed after three years, compared to 33.2% of standard UB recipients. Unlike the education gradient, the age gradient is not meaningfully reduced among Article 60 participants.

Overall, Article 60 participants show lower employment rates than standard UB recipients across all demographic groups. The regional and age patterns are broadly similar between the two groups. The key exception is education: Article 60 is associated with a compression of the education gradient, pointing to a potential role in boosting employment prospects for lower-educated recipients. Although this advantage does not extend to older workers, where the gap between the two groups persists.

Figure 4.18. Employment outcomes are substantially lower for those unemployment benefit recipients who were part of Article 60 before



Note: The horizontal line indicates the population share of beneficiaries who are in regular employment after three years. Educational attainment is based on International Standard Classification for Education (ISCED) codes (0-2, 3-4 and 5-8 respectively).

Source: OECD calculations based on administrative data from the Crossroads Bank for Social Security (CBSS).

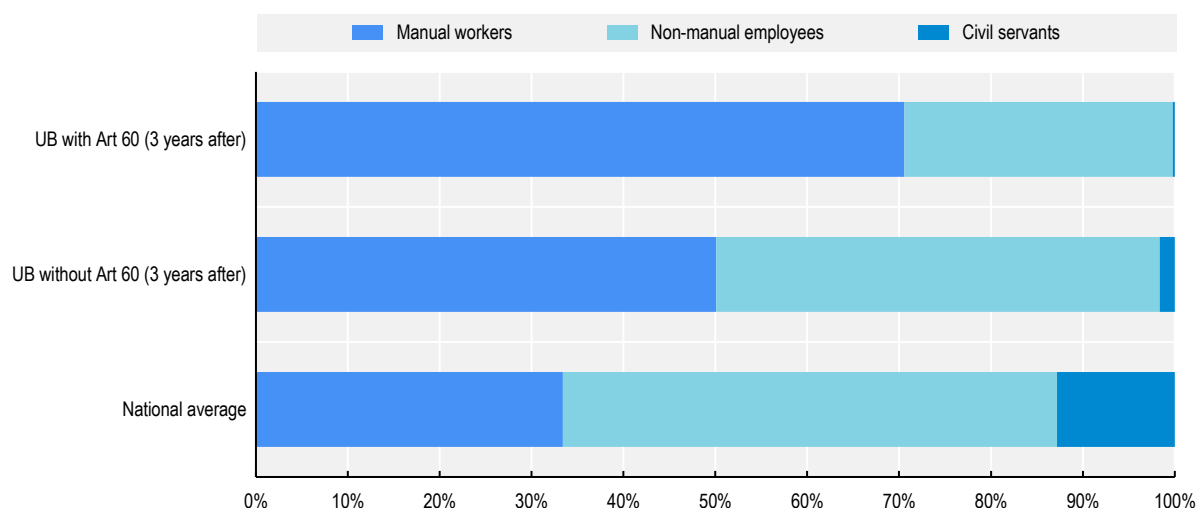
StatLink  <https://stat.link/1x9kt2>

Two-in-three former Article 60 participants enter manual employment, while industries show less variance

Among former UB recipients who have found work three years after entry into UB, occupational outcomes differ notably between those who participated in Article 60 programmes and those who did not. Participants in Article 60 programmes show a substantially higher concentration in manual work (approximately 70%) compared to non-participants (around 45%) and the national average (roughly 30%). Conversely, non-manual employment is markedly lower among Article 60 participants (approximately 30%) than among non-participants (about 55%) and the national workforce (around 60%). The proportion entering civil service positions remains relatively small across both groups, while it makes up a significant share among all workers in Belgium on average (Figure 4.19).

Figure 4.19. Occupations differ markedly by previous Article 60 participation

Types of occupations 36 months after unemployment benefit entry (2011-2020), benchmarked against 2024 national averages



Note: Data for former unemployment benefit (UB) includes spells between 2011-2020 and tracks their status three years after registration.

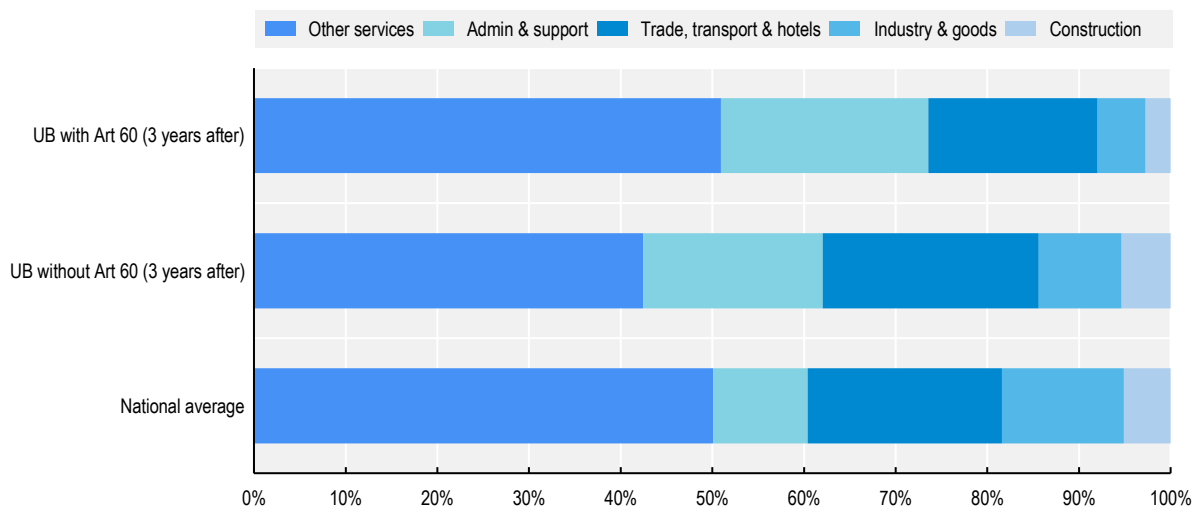
Source: OECD calculations based on administrative data from the Crossroads Bank for Social Security (CBSS) and StatBel *Statistics on establishment units* <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units> for the national average.

StatLink  <https://stat.link/nbhj9c>

The variation in sectoral distribution between the two groups is less pronounced. Indeed, both cohorts show broadly similar patterns of employment across other services, administration and support, trade and transport, industry and goods, and construction sectors (Figure 4.20). Article 60 participants demonstrate marginally lower representation in construction and industry and goods sectors compared to non-participants.

Figure 4.20. Industries that former UB beneficiaries found work in show less variance

Sectors of employment 36 months after MIS or unemployment benefit entry (2011-2020), benchmarked against 2024 national averages



Note: Data for former unemployment benefit (UB) includes spells between 2011-2020 and tracks their status three years after registration.

Source: OECD calculations based on administrative data from the Crossroads Bank for Social Security (CBSS) and StatBel *Statistics on establishment units* <https://statbel.fgov.be/en/themes/datalab/statistics-establishment-units> for the national average.

StatLink  <https://stat.link/3o0akn>

Evidence from recent evaluations of Article 60 effectiveness

The available evaluation evidence on Article 60's labour market effects is limited and points to a mixed picture: Article 60 is effective at achieving its institutional objective of providing access to insurance-based benefits, notably UB, but its impact on sustained employment in the open labour market appears limited and uneven across groups. It is also important to note that the comparison groups differ across studies and from the analysis presented in this chapter. Studies in the evaluation literature typically compare Article 60 participants to non-participants within the social assistance population, asking whether participation leads to better outcomes relative to remaining on MIS. The analysis in this chapter takes a different approach: it compares UB recipients who previously participated in Article 60 to those who entered UB through other routes, and is therefore best read as descriptive evidence on where these two populations end up, rather than as an assessment of programme effectiveness.

Quasi-experimental studies using administrative data confirm that Article 60 raises transitions from social assistance into the unemployment insurance system, rather than directly into employment, with the largest effects among those with weak or absent contribution histories who would otherwise face the greatest difficulties qualifying for UB independently (Le Forem, 2024^[18]). Further, an evaluation by the National Employment Office shows that post-Article 60 unemployment trajectories are long and complex: on average, former participants spend more than six years in the unemployment system before achieving a durable exit, with only one in seven leaving within the first year; however, those who do exit unemployment typically do so into employment, suggesting that the programme does eventually serve its bridging function for a share of participants (RVA/ONEM, 2023^[19]). A Flemish process evaluation of the reformed TWE-OCMW scheme, which integrated Article 60 into a broader temporary work experience framework from 2017 onwards, found more positive short-term results, with around 59% of participants employed three months after completing their trajectory, though stricter entry criteria also meant that fewer of the most disadvantaged beneficiaries accessed the programme than under the previous Article 60 arrangement (De Coen, Valsamis and Vanoeteren, 2018^[20]). Together, these findings suggest that

Article 60s effectiveness is sensitive to the quality of the placement, the support provided during and after the programme, and the characteristics of participants.

The patterns presented in this study are descriptive and should be interpreted with care. Rather than estimating a programme effect, they describe the employment trajectories of former Article 60 participants after they have entered unemployment benefits. Within this group, employment rates three years after entering UB are higher among younger participants and decline sharply with age, consistent with patterns documented in Belgian administrative data (Le Forem, 2024^[18]; Irfam, 2023^[21]). Whether these differences reflect characteristics of the participants themselves or the nature of their Article 60 experience cannot be determined from the data available.

Qualitative evaluations emphasise the importance of varying local practices: structured placements with supervision and skills yield better trajectories than internal or sheltered tasks, implying that devoting greater financial resources to the implementation of the programme likely makes a real difference. Many jobs involve low-skilled services, explaining concentrations in manual roles (Le Kiosque ASBL, 2019^[22]).

Qualitative evidence further suggests that the quality and content of Article 60 placements vary substantially across CPAS: structured placements in external organisations with active supervision and skills development are associated with better employment trajectories than internally focussed tasks, while insufficient accompaniment is linked to revolving-door dynamics in which participants cycle back to social assistance shortly after their contract ends (Caldarini, 2021^[12]). An evaluation of the reformed Flemish TWE-OCMW framework similarly noted that investment in coaching and employer-facing support made a measurable difference to post-programme employment rates (De Coen, Valsamis and Vanoeteren, 2018^[20]). These implementation dimensions cannot be captured with administrative data but are important context for interpreting the sectoral and occupational outcomes documented above.

4.3.5. Improving pathways from Article 60 to stable labour market integration is crucial, as is the development of digital tools that support employment sustainability and career transitions

This chapter documents the longer-term trajectories of MIS beneficiaries in Belgium, with a particular focus on the role of Article 60 in shaping subsequent labour market outcomes. Three main conclusions emerge.

First, exits from MIS are gradual and, for some groups, incomplete. Three years after entry, around one-third of beneficiaries remain on the scheme, and many others cycle between social assistance, unemployment benefits and unstable employment. While employment rates increase over time, especially among higher-educated beneficiaries, long-term persistence remains high for groups facing cumulative factors related to migration background, household composition and regional labour market conditions.

Second, Article 60 plays a central role in the activation of the most vulnerable MIS recipients, but its contribution is best understood as institutional rather than employment-centred. The programme is effective at moving beneficiaries from social assistance into unemployment insurance and at restoring contribution records. At the same time, former participants display weaker employment outcomes once in the unemployment system, reflecting both negative selection into the programme and limited progression into stable, higher-quality jobs.

Third, the structure of post-MIS employment remains highly segmented. Former beneficiaries, and especially those with Article 60 experience, continue to concentrate in manual occupations and service-sector activities characterised by low entry requirements and high turnover. While some occupational upgrading occurs over time, transitions into non-manual roles, goods-producing sectors or public employment remain rare even three years after entry.

From a policy perspective, these findings point to the importance of strengthening the link between Article 60 placements and subsequent labour market opportunities. This includes improving the quality and

relevance of work experience, tailoring placements more closely to local labour demand, and combining Article 60 with training and post-placement support. Without such complementary measures, the programme risks functioning primarily as a mechanism for benefit transitions rather than as a lever for durable labour market inclusion. These conclusions are broadly consistent with the wider Belgian evidence base. Tracking data from the National Employment Office and research on CPAS activation alike point to long post-programme spells, highly variable outcomes depending on the quality of support, and a persistent risk of cycling between benefit states for the most disadvantaged (Bogaerts et al., 2010^[23]; Sempels, Goffin and Vanoeteren, 2023^[24]; RVA/ONEM, 2023^[19]). The present analysis adds medium-term trajectory evidence at national scale to this picture, reinforcing the case for more systematic monitoring of post-programme outcomes and for strengthening the link between Article 60 placements and subsequent labour market support.

A final limitation of this analysis concerns data availability on the content and quality of activation measures, in particular training and Article 60 placements, which also has implications for the future use of data-driven job matching and career recommendation tools. While the CBSS-linked administrative data allow participation in Article 60 and broad labour market states to be tracked over time, they contain only limited information on the tasks performed, skills acquired, training content, supervision arrangements or employer exposure associated with individual placements, though some of it can be retrieved from ONSS records. Similarly, information on training participation is fragmented across regional public employment services and is not consistently integrated with MIS trajectories at the national level. These gaps constrain the ability to assess which programme features support durable employment and to distinguish programme effects from selection into different activation pathways.

From a forward-looking perspective, richer and more integrated data are a precondition for designing effective job matching and career recommendation tools for minimum income recipients. Tools that aim to guide beneficiaries towards suitable occupations, training pathways or employers require detailed information on prior work experience, skills gained during programmes such as Article 60, and subsequent employment outcomes. Without such data, algorithmic or rule-based matching risks reproducing existing segmentation by repeatedly directing disadvantaged beneficiaries towards a narrow set of low-quality jobs. Strengthening data linkages between CPAS, regional employment services and social security records would therefore not only improve evaluation capacity but also enable more personalised, evidence-based activation strategies that support progression rather than repeated cycling through temporary or low-skilled employment.

Lastly, it should be noted that Belgian unemployment benefit eligibility has recently undergone a significant reform. Under the federal government agreement of January 2025, unemployment benefits will be capped at a maximum of 24 months for most recipients (with an exemption for those aged 55 and over), reforming Belgium's long-standing system of time-unlimited UB. This reform has potential implications for the role that social assistance benefits play in the Belgian income support system, and – more specifically – for Article 60 as a pathway to income security. First, MIS, which so far has played a rather residual role in the Belgian benefit system, will gain in importance, as a potentially larger number of long-term UB recipients will flow into the system upon reaching the end of their UB entitlement period. Along with rising recipient numbers, also the profiles and specific support needs of MIS beneficiaries will change, which may call for a revised targeting of the Article 60 programme. Second, in light of evidence that former Article 60 participants who move into the UB system often remain on UB for several years, a significant share of them may – under the new rules – exhaust their UB entitlements before finding regular employment, and hence return to the MIS. In other words, there is a risk that certain jobseekers may end up “cycling” between the MIS, Article 60 participation and UB receipt without managing to find regular employment and achieving self-sufficiency. However, as the reform is recent and its effects have yet to materialise, additional evaluation may be needed to assess its impact on MIS beneficiary numbers and profiles, benefit trajectories, and the effectiveness of Article 60 as a tool to activate jobseekers and support their transition into regular employment.

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Annex 4.A. Additional statistics for Greece

Annex Table 4.A.1. Occupational transitions by detailed occupation

Share of GMI beneficiaries by occupational transition status three years after entry into employment, by initial ISCO 2-digit occupation group

Occupation	At least 1 occ. change	Same status level	Better status level	Worse status level	Not in employment	No score
Administrative and Commercial Managers	60%	31%	1%	36%	31%	2%
Production and Specialised Services Managers	82%	16%	5%	54%	24%	1%
Science and Engineering Professionals	43%	48%	2%	21%	26%	3%
Health Professionals	41%	46%	0%	17%	32%	5%
Teaching Professionals	67%	47%	7%	17%	18%	10%
Business and Administration Professionals	64%	33%	4%	28%	30%	5%
Information and Communications Technology Professionals	60%	35%	9%	26%	28%	2%
Health Associate Professionals	44%	48%	6%	17%	29%	1%
Business and Administration Associate Professionals	63%	38%	26%	8%	23%	4%
Legal, Social, Cultural and Related Associate Professionals	64%	43%	7%	24%	25%	1%
General and Keyboard Clerks	54%	39%	14%	14%	29%	5%
Customer Services Clerks	73%	24%	4%	39%	27%	6%
Personal Service Workers	68%	37%	20%	16%	25%	2%
Sales Workers	57%	40%	5%	27%	27%	1%
Market-oriented Skilled Agricultural Workers	54%	30%	16%	13%	39%	2%
Building and Related Trades Workers (excluding Electricians)	48%	34%	10%	17%	38%	1%
Metal, Machinery and Related Trades Workers	52%	43%	10%	19%	26%	2%
Handicraft and Printing Workers	46%	52%	12%	15%	19%	2%
Electrical and Electronics Trades Workers	57%	41%	12%	17%	29%	1%
Stationary Plant and Machine Operators	58%	41%	10%	24%	24%	0%
Assemblers	66%	30%	24%	17%	28%	1%
Drivers and Mobile Plant Operators	55%	46%	13%	15%	24%	1%
Cleaners and Helpers	53%	39%	26%	2%	32%	1%
Agricultural, Forestry and Fishery Labourers	54%	28%	28%	0%	41%	3%
Labourers in Mining, Construction, Manufacturing and Transport	52%	34%	23%	6%	35%	1%

Note: Occupation refers to the first job held after GMI registration, classified according to ISCO 2-digit groups. "At least 1 occ. change" indicates the share of individuals who experience at least one occupational transition during the three-year follow-up period. Status levels are defined based on the International Socio-Economic Index of Occupational Status (ISEI), which ranks occupations according to their associated earnings and educational requirements. "Same", "better" and "worse" skill levels refer to the relative position of occupations held three years after entry compared to the initial job. "Not in employment" refers to individuals not observed in registered employment at the end of the follow-up period. "No score" indicates cases where skill level comparisons could not be computed due to missing ISEI values. The sample includes GMI beneficiaries with at least three years of follow-up after entry into employment.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform and the employment register ERGANI.

StatLink  <https://stat.link/rj7z8m>

Annex Table 4.A.2. Occupational transitions by individual characteristics

Share of GMI beneficiaries by occupational transition status three years after entry into employment, by selected individual characteristics

Demographic Characteristics	At least 1 occ. Change	Same status level	Better status level	Worse status level	Not in employment	No score
Gender						
Men	60%	37%	17%	16%	29%	2%
Women	58%	39%	17%	14%	29%	2%
Age						
Under 29	71%	33%	23%	18%	24%	2%
30-39	58%	39%	16%	15%	28%	2%
40-49	51%	42%	14%	13%	30%	2%
Above 50	41%	40%	10%	9%	39%	1%
Education						
Low	52%	39%	14%	13%	33%	1%
Medium	62%	37%	18%	16%	26%	2%
High	65%	36%	20%	14%	25%	4%
Other/missing	50%	37%	12%	12%	37%	1%
Overall	59%	38%	17%	15%	29%	2%

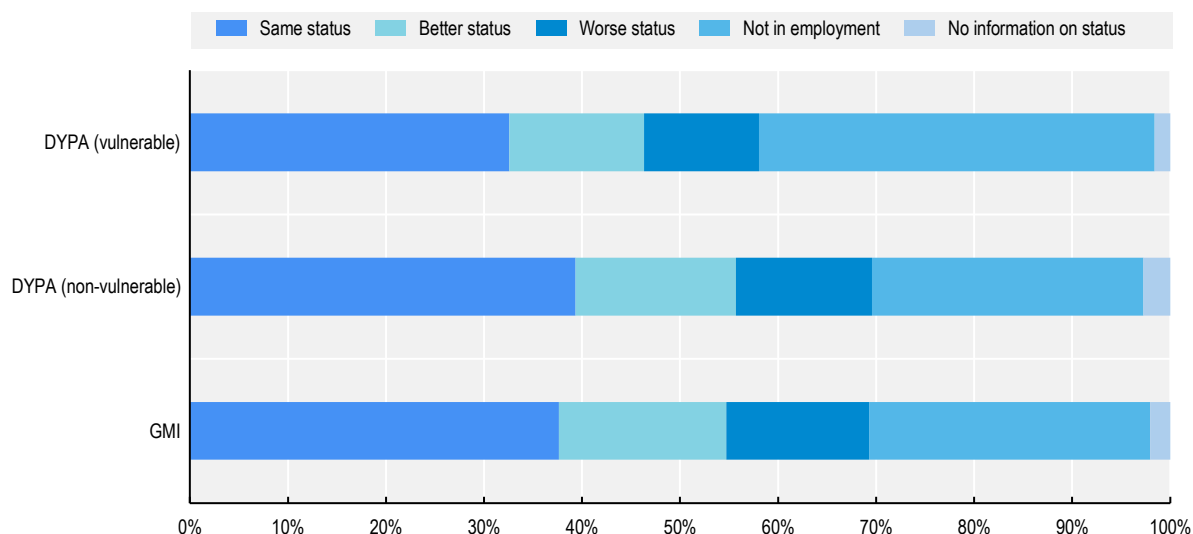
Note: "At least 1 occ. change" indicates the share of individuals who experience at least one occupational transition during the follow-up period. Status levels are defined using the International Socio-Economic Index of Occupational Status (ISEI), which ranks occupations according to their associated earnings and educational requirements. "Same", "better" and "worse" status levels refer to the relative status of the occupation held three years after entry compared with the initial job. "Not in employment" refers to individuals not observed in registered employment at the end of the follow-up period. "No score" indicates cases where status comparisons could not be computed due to missing ISEI values. Education levels are defined according to ISCED: low education corresponds to ISCED 0-2, medium education to ISCED 3-4, and high education to ISCED 5-8. The sample includes GMI beneficiaries with at least three years of follow-up after entry into employment.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, and ERGANI registry.

StatLink  <https://stat.link/5wdomu>

Annex Figure 4.A.1. Direction of occupational mobility among GMI beneficiaries following entry into employment

Share of GMI beneficiaries by direction of occupational transitions, by initial occupation



Note: Skill levels are defined based on the International Socio-Economic Index of Occupational Status (ISEI), which ranks occupations according to their associated earnings and educational requirements. “Better”, “same” and “worse” skill levels refer to the relative position of occupations held three years after entry compared to the initial job. “Not in employment” refers to individuals not observed in registered employment at the end of the three-year follow-up period. The GMI sample includes with at least three years of follow-up after entry into employment. DYPa sample includes jobseekers with the same follow up period, and excluding individuals receiving GMI.

Source: OECD calculations based on data from the Greek Guaranteed Minimum Income (GMI) platform, the Greek public employment service (DYPa) and the employment register ERGANI.

StatLink  <https://stat.link/icwunh>

Notes

¹ ERGANI records do not capture all forms of employment, including parts of the public sector, self-employment and informal work.

² Occupational change is defined as a transition between jobs with different four-digit ISCO codes. In this context, experiencing at least one occupational change implies that an individual holds jobs in at least two distinct occupations during the observation window.

³ Further analyses disaggregating the results by individual characteristics and jobseeker type are presented in the Annex. Annex Table 4.A.2 presents the same occupational transition indicators by selected individual characteristics, showing that younger beneficiaries are the most occupationally mobile, while gender differences are limited. Annex Figure 4.A.1 reports the corresponding distributions for the overall GMI population and for DYPA jobseekers (distinguishing vulnerable and non-vulnerable groups), GMI beneficiaries and DYPA vulnerable jobseekers show broadly similar patterns of occupational mobility.

⁴ Based on the OECD Job Quality Framework, in which earnings quality is a key determinant of overall job quality (Cazes, Hijzen and Saint-Martin, 2015^[25]).

⁵ Gender wage gaps persist in Greece, with women earning around 14-15% less than men in recent years (2018-2024). Earnings differences by age follow standard life-cycle patterns, with both younger and older workers earning less than prime-age workers. See OECD, *Gender wage gap* and *Wage gap by age*, (OECD, 2026^[4]).

⁶ Work experience programmes are on-the-job training programmes aimed at providing jobseekers with practical work experience.

5

AI-enabled platforms can help connect jobseekers with complex barriers not just to jobs, but to pathways

The existing institutional and data infrastructure in Belgium and Greece provides a strong basis for developing tailored AI-powered solutions that can better support MIS beneficiaries on their journey towards employment. This chapter proposes a concept for a comprehensive job matching and career recommendations platform targeting the needs of this specific target group and beyond in the two countries. The underlying functionalities of such a platform are structured around five main pillars: 1) improving the quality and personalisation of job matching; 2) enhancing vacancy management; 3) identifying jobseekers' skills, needs and barriers; 4) getting access to labour market insights; and 5) supporting career development and activation pathways. The chapter also proposes strategic options for deploying such solutions in each context and discusses governance considerations and potential users.

5.1. Introduction

Despite the fact that digital tools to support labour market integration exist in both Belgium and Greece, neither currently has solutions specifically tailored to the needs of MIS beneficiaries and other disadvantaged jobseekers. This gap is particularly relevant for job matching and career recommendations purposes, as these individuals often require more tailored support to identify suitable opportunities, understand how their skills relate to labour market demand, navigate job postings that are not always written with their profiles in mind and move into better and more sustainable opportunities. At the same time, employers may struggle to reach or identify candidates from vulnerable groups even when suitable applicants exist, leading to missed matches on both sides.

This chapter proposes concepts for digital solutions enhanced by AI, to support job matching and recommend career pathways for this specific target group and beyond in the two countries. Rather than developing multiple standalone tools or parallel initiatives, the proposed approach recommends designing and implementing a single digital platform in which the core functionalities are integrated. This will allow users to access all relevant services through a consistent interface, improving usability, efficiency, and data coherence. This approach also avoids the fragmentation often created by a patchwork of digital unintegrated initiatives, ensuring interoperability, scalability, and sustainability. Nevertheless, if developing such an ideal platform is not feasible, the chapter proposes a second-best option of developing a career recommendation tool as a standalone instrument.¹ The present concepts outline a set of potential functionalities, structured around five main pillars. While these functionalities intend to have a wider application, which can be relevant regardless of governance models and country-specific institutions, features and considerations that are specific to each country are also being highlighted.

The chapter is structured as follows: Section 5.2 outlines the key objectives and benefits that such tools can generate. The next section discusses how these tools can be integrated to enhance the customer journey for MIS beneficiaries in the two countries. Sections 5.4, 5.5 and 5.6 describe the proposed concepts and user groups, and outline all the various underlying functionalities, strategic options, and governance considerations for each country.² The further development of career recommendation functionalities as a distinct tool is also presented as an alternative policy option, should deeper integration with the existing job matching tool and other relevant digital services not be technically or operationally feasible (Section 5.7).

5.2. AI-based job matching and career recommendation tools can pursue multiple interconnected objectives and generate substantial benefits

The overarching objective of a comprehensive job matching platform is to enhance labour market mediation by matching jobseekers' profiles with relevant job vacancies, assisting both jobseekers and employers.³ Digital career recommendation tools can complement a job matching platform by providing guidance on skills development, career progression opportunities, and longer-term employment prospects. Such solutions can be particularly valuable for MIS beneficiaries and other vulnerable groups, such as long-term unemployed individuals or people facing multiple barriers to employment who often experience repeated unemployment spells and are more likely to cycle between short-term, low-quality jobs with limited prospects for advancement.

The introduction of such solutions can potentially generate substantial benefits not only for the end users themselves but also for the institutions involved in supporting them, such as PES and social services. In this respect, the experiences of PES across EU and OECD countries that already employ digital and AI-powered tools for labour market mediation (e.g. France, Austria, Finland, Korea, the Netherlands, Sweden, etc.) can provide useful insights that can inform the development of similar solutions in Greece

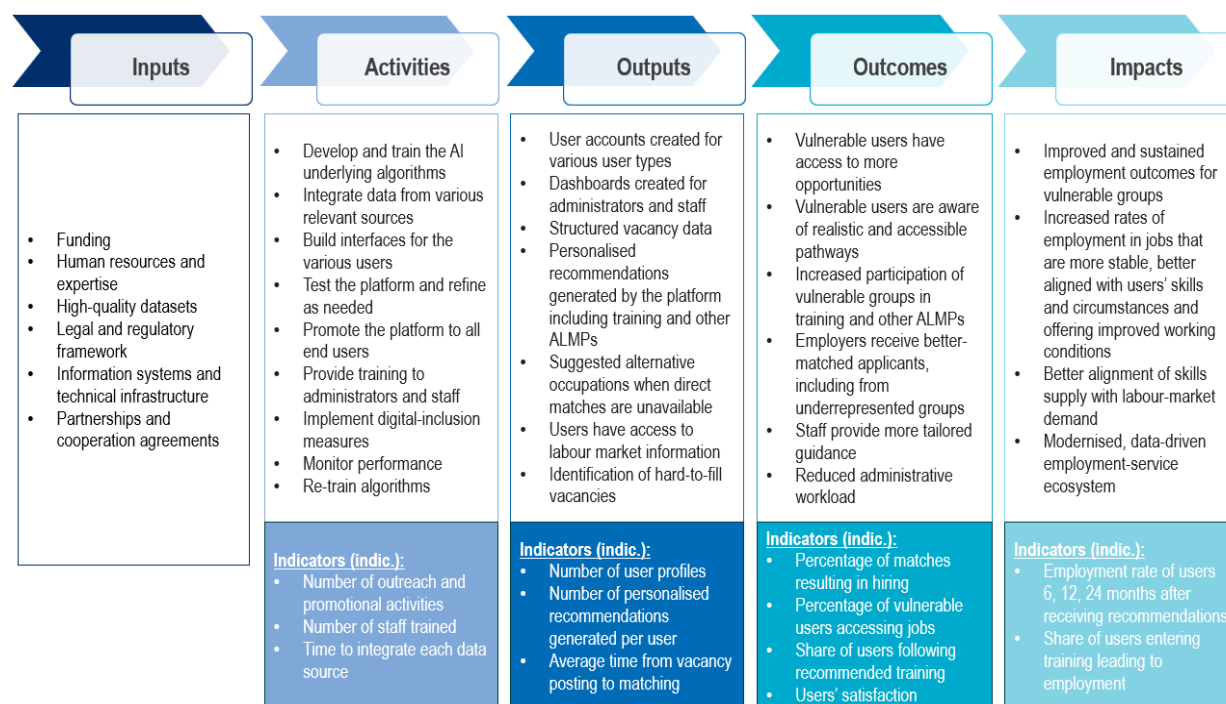
and further improvement of existing tools like in the case of the VDAB in Belgium (Brioscú et al., 2024^[1]; Dromundo Mokrani, Lauringson and Xenogiani, 2024^[2]).⁴ The most important benefits include:

- *Greater efficiency and more effective service delivery.* AI can speed up job searches, automate parts of the process such as skills comparisons and career pathway suggestions, and reduce administrative burdens. In turn, this can lower operational costs, enable more efficient allocation of staff and resources, and allow counsellors to focus more on personalised support and complex cases.
- *More accurate and personalised matching.* AI can analyse jobseekers' skills, preferences and circumstances alongside employers' needs, enabling more accurate matches and more tailored recommendations. This can help contribute to improved employment outcomes and more effective activation, while it can help guide individuals towards sustainable career pathways, training opportunities, and occupations with stronger prospects. These benefits can be particularly important for MIS beneficiaries and other disadvantaged groups, for whom more personalised guidance can support sustainable labour market integration.
- *Improved user experience and accessibility.* By offering timely, relevant, and user-centred recommendations, AI can support users in making informed choices, increase visibility of opportunities and reduce the burden of navigating fragmented sources of information. In turn, this can make employment and social services more accessible, attractive, and better meet the expectations and up-to-date needs of the users.
- *Better ALMP targeting.* By identifying skills gaps, employment barriers, and labour market opportunities more accurately, PES can direct jobseekers toward training programmes and activation measures that are more likely to improve employability and employment outcomes, thereby increasing the effectiveness of public spending.
- *Stronger monitoring and policy insights:* The data generated by these tools can help PES monitor jobseeker trajectories, identify common barriers to employment, and detect emerging skills shortages. The information generated can then support evidence-based policy design and service improvements.

Figure 5.1 presents an indicative results chain for a comprehensive AI-powered job matching and career recommendations platform. It outlines the main inputs, activities, outputs, outcomes, and long-term impacts that the tool could generate, particularly in relation to improving labour market integration for MIS beneficiaries and other vulnerable groups. It also proposes some example indicators that could be used for monitoring and evaluation purposes.

Figure 5.1. Results chain for an AI-powered matching and career recommendations platform

Indicative results chain for an AI-powered job matching and career recommendations platform, with a focus on MIS beneficiaries and other vulnerable groups. It includes inputs, activities, outputs, outcomes, long-term impact, as well as a set of indicative efficiency indicators appropriate for monitoring and evaluation



Note: The elements depicted in the results chain figure are not exhaustive and do not capture every operational detail, function or contextual factor that may influence the platform's development and implementation.

Source: Authors' elaboration.

5.3. Matching and career recommendation platforms can enhance the journey of MIS beneficiaries towards employment

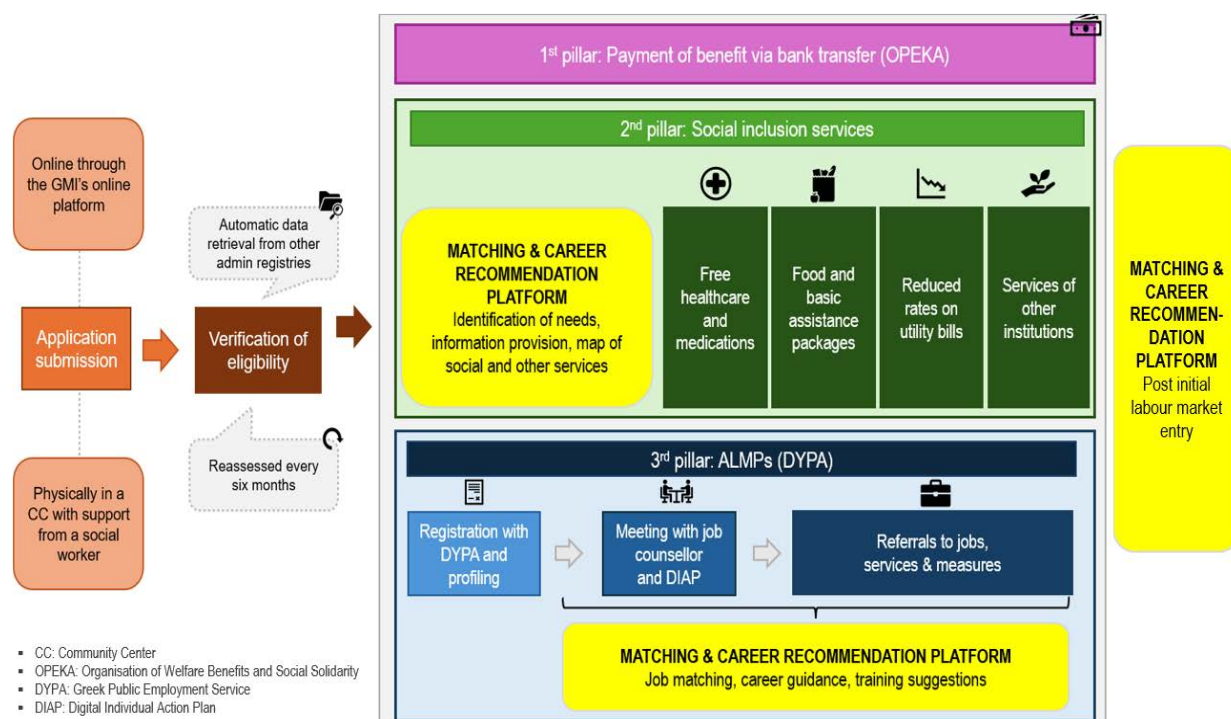
Given the level of digital development in Greece and Belgium and the clearly identified needs, introducing matching and career recommendation platforms to support MIS beneficiaries and other jobseekers with vulnerabilities is relevant and feasible in both contexts. The platform doesn't aim to replace existing services or alter the eligibility criteria for these services. Rather, its core objective is to streamline and enhance the effectiveness of each step in the process by providing data-driven insights and personalised guidance, and particularly in the Belgian context to expand access to opportunities beyond regional boundaries.

The present section discusses how the introduction of a comprehensive job matching and career recommendation platform (conceived as a single digital solution that integrates key functionalities) can be embedded within and facilitate the standard journey of MIS beneficiaries. It is structured into two sections; the first one focusses on Greece and the second one on Belgium.

5.3.1. In Greece, the job matching and career recommendation tool can be embedded within the journey of MIS beneficiaries towards self-sufficiency

Figure 5.2. depicts the standard journey of MIS beneficiaries in Greece from a high-level perspective. Based on its multiple functions, the job matching and career progression platform can be used in several points within this journey to facilitate the social inclusion and activation of MIS beneficiaries and other jobseekers (yellow boxes). It can also support other key end-users such as job counsellors, social workers and employers.

Figure 5.2. The matching and career recommendation tool aims to act as a digital support layer within the activation pathway of MIS beneficiaries



Source: Authors' elaboration.

The tool can support the early detection of potential barriers and function as a centralised hub for accessing social services

After eligibility to enter the MIS scheme is verified and under the second pillar of the MIS scheme in Greece, beneficiaries are entitled to social inclusion services (for a description of services, see Chapter 2).

At this stage, the tool can help identify potential barriers such as housing instability, caregiving responsibilities, mental health challenges, or lack of childcare. Based on this information, it can guide MIS beneficiaries themselves as well as social workers at the Community Centres to direct individuals towards appropriate services, community support, or specialised assistance to address barriers that affect their ability to work. By directing users to the right support early on, the system helps ensure that underlying issues are addressed before individuals engage fully in employment-related activities. The platform could also detect early signals of vulnerability or complex needs by combining information on beneficiaries' social circumstances and service use. This would allow social workers to prioritise individuals who may require more intensive support and ensure that appropriate interventions are provided in a timely manner.

In addition to identifying barriers, the platform can act as a centralised hub for social services available within the beneficiary's region (but also beyond), allowing information on available services to be gathered in one place and made readily accessible to all relevant actors. This can improve visibility of available support, reduce awareness gaps and facilitate faster referrals. The platform could therefore be used both by beneficiaries themselves in case they are able to use the tool independently, and by social workers and job counsellors who support them in navigating available services and progressing towards greater self-sufficiency. The tool could also support case management by allowing social workers to record identified barriers, track referrals to services, and monitor whether beneficiaries have accessed the support recommended to them. This can help ensure that individuals do not fall through the cracks and that follow-up actions are indeed taken when needed.

Such functionalities can prove particularly valuable for supporting the mobile units of the Community Centres that serve residents in remote mountainous or island municipalities, where access to up-to-date information on available services may otherwise be limited. In these cases, the platform could provide a shared digital interface through which staff can quickly identify relevant support options and co-ordinate assistance even when services are geographically dispersed.

The tool can support MIS beneficiaries throughout their employment journey, extending beyond initial job placement

Naturally, the matching and career recommendation tool plays a central role in the activation process. Following registration with DYPA, the tool can be used throughout the journey towards employment. In an ideal world, the profiling tool deployed currently by DYPA could be either part of this platform or be interoperable with it. This way the information about jobseekers' work history, education and skills would feed the platform and therefore the results that it will provide would be more tailored to the individual's capabilities and circumstances. The diversity in the profiles of MIS beneficiaries and the complexity of their needs make the integration of such a platform at this stage particularly useful, as it helps ensure that social and employment support are addressed in a co-ordinated and complementary manner.

When jobseekers meet with DYPA's job counsellors to develop the Digital Individual Action Plan, the tool can provide additional insights that support decision making and inform referrals. Based on the user's profile and labour market conditions the tool can help match the jobseeker with available vacancies. It can also suggest possible occupations that align with the person's skills, identify alternative career paths, and highlight sectors where demand for labour is increasing. It can identify skill gaps and recommend training, upskilling and reskilling programmes and other ALMPs like employment incentives, vocational training programmes, work experience programmes and public works that may help individuals move towards more stable or better-quality employment and also services such as career guidance and targeted seminars. The system can also provide information about labour market trends, such as occupations that are difficult to fill, emerging roles, or sectors experiencing growth. These insights can help both counsellors and jobseekers focus their efforts on opportunities where the likelihood of employment is higher. When relevant, it can also direct individuals back to social or health services if additional support is needed. As above, the tool can be either used independently by the jobseeker or in co-operation with the job counsellor.

One challenge that arises in the activation phase of the customer journey concerns the fragmentation of employment support services. Currently, in addition to DYPA, some municipalities operate integrated labour offices that provide job search assistance to their citizens. While these initiatives can increase the availability of support at the local level, they may also lead to duplication of efforts or differences in the type and quality of support available depending on the municipality. At the same time, Community Centres, municipal labour offices and KPAs often rely on separate information systems with only partial interoperability. As a result, relevant information about MIS beneficiaries, such as their employment history, skills profile, participation in programmes or previous referrals, may not always be consistently shared

across institutions. This fragmentation can affect the labour market prospects of beneficiaries and complicate service delivery.

A matching and career recommendation platform could help address this challenge by acting as a shared digital infrastructure used by all relevant actors involved in the activation process. Through a common interface, Community Centres, municipal labour offices and KPAs could access and update key information on beneficiaries' profiles, action plans, and referrals, thereby improving co-ordination among the different agencies. For example, when a MIS beneficiary is referred to a job vacancy, a training programme or a social service, the information could be registered in the system and become visible to other authorised actors ideally in real time. In practice, this would allow counsellors and social workers to see which interventions have already been proposed or implemented, reducing the risk that individuals are repeatedly referred to similar programmes or asked to provide the same information multiple times.

In addition, the platform could support the development of shared or co-ordinated action plans between institutions involved in the activation process. Social workers at Community Centres could record information on social barriers affecting employability, while PES counsellors could update information related to employment support measures, job search activities or participation in training programmes. By bringing together these different elements in one place, the platform could provide a more comprehensive picture of the beneficiary's situation and progress towards employment.

From the perspective of jobseekers, such integration would simplify the system and reduce the administrative burden associated with navigating multiple institutions. MIS beneficiaries would not need to repeatedly provide the same information to different institutions, and the support they receive would be more consistent regardless of where they initially engage with the system.

Another option is rethinking and clarifying even further the different agencies' roles and responsibilities. The introduction of such a platform could serve as an opportunity for this. While municipalities and Community Centres focus on addressing social barriers and providing complementary support services, KPAs are the sole actors charged with the primary responsibility for labour market activation and employment-related services, such as job matching, training referrals and employer engagement. The platform would therefore act as a co-ordination tool, allowing each actor to contribute within their mandate while ensuring that the overall support pathway for beneficiaries remains coherent.

Another important consideration concerns the moment or timing at which such a tool should be used within the activation process. Rather than being limited to a single stage, the matching and career recommendation platform could support beneficiaries throughout their entire employment journey. Its use could begin at the moment of registration with the PES, where it would assist in profiling jobseekers and identifying potential employment opportunities, training needs, and possible barriers to employment. During counselling sessions, the platform could support job counsellors in developing action plans by providing information on suitable occupations, skills requirements, training options, and labour market trends. The tool could continue to play a role even after referrals to jobs, training programmes, or other services have been made. Beneficiaries could use it to obtain additional information about recommended opportunities, explore alternative career pathways, identify relevant education or training programmes, or search for better employment opportunities as their situation evolves. In this way, the platform would not only support entry into employment but could also assist individuals in improving their labour market situation over time.

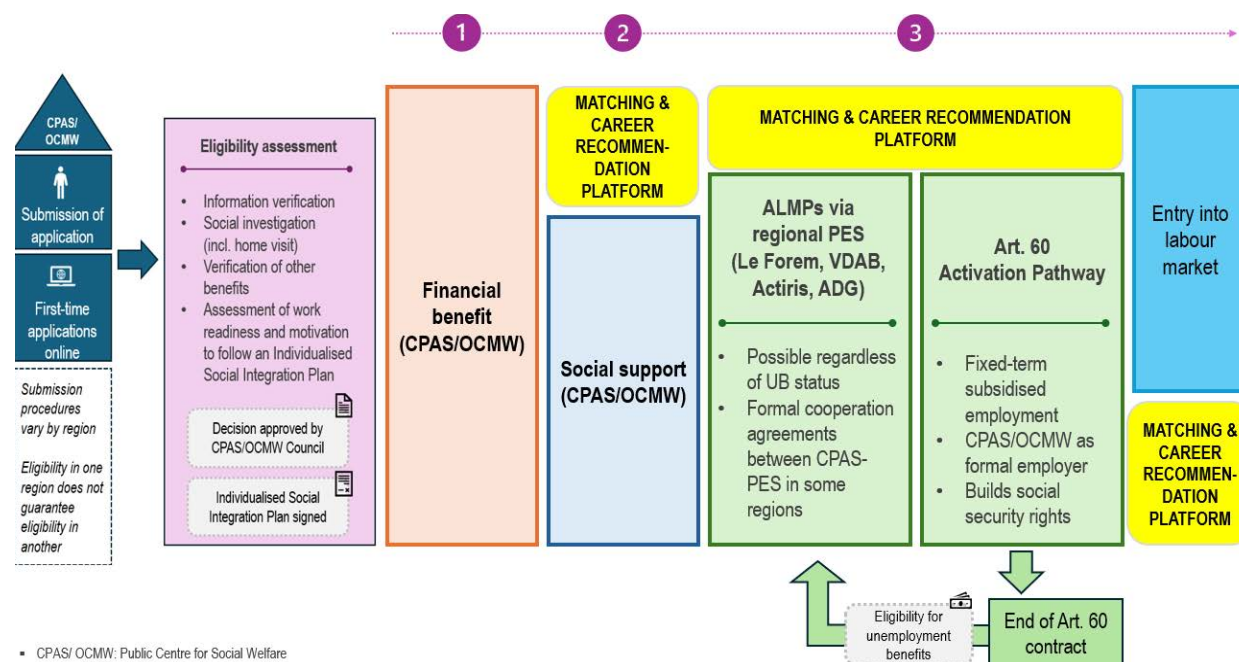
Finally, the platform would not be limited to jobseekers alone. As mentioned earlier, the platform could be used in different ways depending on the needs and capacities of users. Some beneficiaries may use the tool independently to explore opportunities, obtain guidance, or monitor their progress. Others may rely on support from job counsellors or social workers, who could use the platform during counselling sessions to guide discussions and identify appropriate next steps. The tool could therefore function both as a self-service digital resource and as a decision-support instrument for the staff working with MIS beneficiaries.

Such a platform should continue to add significant value beyond initial job placement by supporting individuals throughout their employment journey. It should remain accessible to individuals even after they have entered employment, allowing them to explore opportunities for career progression, identify training that could improve their skills, or consider alternative employment pathways. This continuous support is particularly relevant for MIS beneficiaries, many of whom face multiple and evolving barriers to employment. Their pathways into the labour market are often gradual and may involve periods of training, temporary employment, transitions between different types of work and even inactivity. The tool can provide timely guidance when circumstances change and direct them to (additional) training, re-matching, more suitable roles, or guidance towards better career pathways. In doing so, the platform shifts the focus from short-term placement to long-term labour market integration, ensuring that individuals not only access employment, but also progress towards more stable, rewarding, and sustainable careers and therefore greater economic independence.

5.3.2. In Belgium, the job matching and career recommendation tool can lead to more tailored and effective pathways to employment

Similarly to the case of Greece, Figure 5.3. depicts how the standard journey of MIS beneficiaries in Belgium can be facilitated due to the integration of the job matching and career progression platform (yellow boxes).

Figure 5.3. The matching and career recommendation tool can be integrated into different parts of the customer journey of MIS beneficiaries in Belgium



Source: Authors' elaboration.

The tool can help identify barriers upfront and gather available services in one hub

Once enrolled in the minimum income scheme, beneficiaries are entitled to a wide range of social services (for a description of services, see Chapter 2). At this stage, the matching and career recommendation platform can help identify potential barriers of the beneficiaries such as housing instability, caregiving responsibilities, mental health challenges, or lack of childcare. Based on this information, it can help social

workers direct individuals towards appropriate services ensuring that underlying issues are addressed before or in parallel with employment-related activities. In addition to identifying barriers, the platform can act as a centralised hub for social services that are available within the beneficiary's region and beyond. The information about the available services would be gathered in this hub, making it easily accessible to all relevant stakeholders. Both the identification of barriers and the map of available services would be particularly valuable, as information on beneficiaries' needs and circumstances (typically collected by the CPAS/OCMW) is often rich, yet not systematically captured or connected across municipalities or with employment services.

The platform could be used both by beneficiaries themselves in case they are able to use the tool independently, and by social workers. The tool could also support case management by allowing social workers to record identified barriers, track referrals to services, and monitor whether beneficiaries have accessed the support recommended to them. This can help ensure that individuals do not fall through the cracks and that follow-up actions are taken as fast as possible and as needed.

The tool can support MIS beneficiaries from job search through post-placement by surfacing opportunities beyond local PES jurisdictions

In Belgium, ALMPs are delivered by the competent regional employment service (Le Forem, Actiris, VDAB, ADG). In addition to social services and ALMPs, MIS beneficiaries in Belgium could be guided towards other education and training services such as language courses, vocational training, or second-chance education.

The matching and career recommendation tool should be used throughout the MIS beneficiaries' journey towards employment. In the first place, based on the user's profile and labour market conditions the tool can help match the jobseeker with available vacancies. To some extent, this is already possible especially in the PES with more mature advance digital systems which include job matching tools. The key difference here is that the matching and career recommendation tool envisioned under this project should be capable of suggesting and displaying opportunities from all different regions and not only those within the individual's PES jurisdiction.

It can also suggest possible occupations that align with a person's skills, identify alternative career paths, and highlight sectors where demand for labour is increasing. Following the identification of gaps and taking into account the individual's barriers and constraints, the tool can recommend training, upskilling and reskilling programmes that are directly aligned with labour market demand. Instead of assigning generic training, the tool can recommend targeted pathways based on real job opportunities, showing how specific training leads to concrete employment options. It can also suggest other ALMPs like employment incentives and work experience programmes that may help individuals move towards more stable or better-quality employment and also services such as career guidance and targeted seminars. The system can also provide information about labour market trends, such as occupations that are difficult to fill, emerging roles, or sectors experiencing growth. These insights would help counsellors, social workers and jobseekers focus their efforts on opportunities where the likelihood of employment is higher. When relevant, it can also direct individuals back to social or health services as deemed necessary.

In the case of Belgium, the tool can also include the schemes available under Article 60 and Article 61. This is particularly important as currently this information is not consistently kept and interoperable across municipalities. In this very specific case, the platform can ensure that this pathway is used in a strategic rather than systematic manner. Before entry, the tool could help assess whether the individual could already transition directly into the labour market. During the pathway, it can track skills development and continuously recommend next steps, ensuring that this experience accumulates into sustainable employment. As the Article 60/61 contract approaches to an end, the platform becomes especially valuable by identifying suitable job opportunities or ALMPs and facilitating transition, thereby reducing the risk of returning to unemployment.

The platform can continue to add value after initial job entry by tracking retention, progression, and job quality. It can detect early risks such as for example those related to instability and suggest corrective actions including additional training or better job opportunities. This ensures that the system focusses not only on placement, but on sustainable employment and career development.

5.4. A concept for AI-based digital solution(s) to match MIS beneficiaries and labour demand and provide career recommendations

This section proposes a concept for new digital solutions enriched by AI elements to enhance the capacity of Greece and Belgium to support MIS beneficiaries and other vulnerable jobseekers in their journey towards employment and career progression. The proposed concept outlines a set of potential functionalities that those solutions could ultimately embrace, along with the key steps that the two countries would need to take to implement these features effectively. The technical and functional specifications of such solutions fall beyond the scope of this project and this specific report.

While the tool's long-term vision is to support a broad range of users, the development process can begin small. This includes a limited set of core functionalities that appear most important based on the data analysis and the country context. These initial features would form the foundation of the tool and could be gradually expanded over time, as additional resources become available and as lessons emerge from implementation and user experience. This phased approach would allow the tool to start delivering value early, while enabling continuous improvement and enrichment.

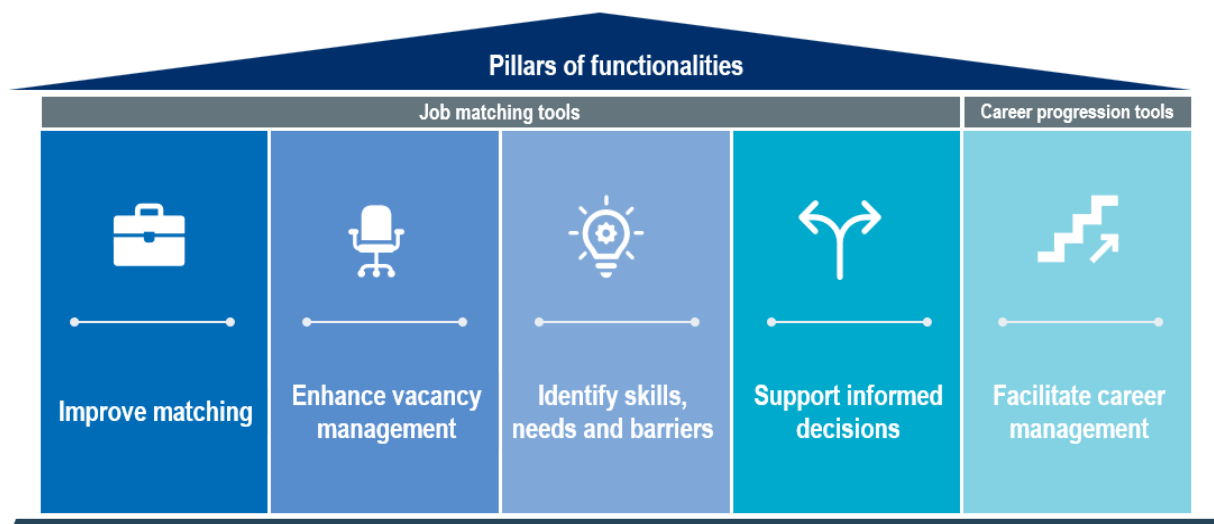
This section is organised as follows: It first introduces the core pillars around which the platform can be developed as well as the relevant functionalities under each pillar and how these can operate in an interconnected manner. Next, the section discusses how the new AI matching solution should interact with and support a range of users. Section 5.5 outlines strategic options for deploying the AI-powered matching platform in each country, highlighting the key elements that differentiate these options. Section 5.6 explores the governance structure of the platform in each country – who could own, manage, administer, and access the system –, as well as how these roles could be distributed across the relevant institutions. The primary or ideal scenario relies on the assumption that career recommendations functionalities are developed as part of a comprehensive matching platform. However, if for any reason the ultimate decision is not to develop such a comprehensive platform, an alternative option would be to develop the career progression tool as a standalone instrument. Section 5.7 examines this alternative scenario and discusses specific considerations for each country.

5.4.1. An AI-based matching tool for MIS beneficiaries can be developed around five core pillars with each pillar representing a bundle of related functionalities

The proposed concept for the new AI-based job matching tool outlines functionalities that span the entire job matching process and could be structured around five pillars: improving the quality and personalisation of matching, enhancing vacancy management, identifying jobseekers' skills, needs and barriers, getting access to labour market insights and career pathways and progression options (Figure 5.4).

Figure 5.4. An AI-based matching platform for MIS beneficiaries can be developed around five core pillars – each representing a bundle of related functionalities

The proposed concept for a comprehensive AI matching platform outlines different functionalities that could be structured around five pillars



Note: Career progression related functionalities including suggesting pathways that extend beyond immediate job placement can be developed either as an additional pillar of the platform or as a separate, complementary AI solution. In the former case, the platform would serve as a comprehensive, AI-powered system for job matching and career progression.

Source: Authors' elaboration.

The functionalities discussed in this section are intentionally described in a general way, accompanied by practical examples. Such capabilities can be implemented in both Greece and Belgium, regardless of their respective differences in institutional structures or data systems. Examples are also provided to illustrate how key findings from the data analysis can be translated into concrete platform functionalities in the two countries.⁵

Pillar 1: AI algorithms can improve the matching quality between MIS beneficiaries and employers

Improving matching quality is at the core of a job matching platform because it orchestrates the fundamental task of connecting jobseekers with suitable employment opportunities and employers finding candidates who meet their needs. Its success – whether translated into improved labour market outcomes, reduced frictions or enhanced access to opportunities – can generate substantial benefits for the users, especially for vulnerable groups who often experience weak connections to the labour market or face additional barriers in navigating job search processes.

The matching process is complex as it relies on a wide set of underlying and often interconnected functionalities that prepare, structure, and mediate the exchange between the different stakeholders interacting with the platform. It involves collecting, organising and combining information from multiple sources and interpreting the results with the aim to create meaningful links between the different actors. Furthermore, the matching process is a dynamic process. In other words, it is a process that evolves over time as user profiles are updated, vacancies change, or labour market conditions shift. The underlying components of matching create the foundation upon which AI-powered techniques can be introduced to enhance precision, inclusiveness, and transform the overall user experience.

AI can streamline user registration, onboarding, and profile creation

A key feature of AI-powered matching solutions lies in their ability to create dynamic and adaptive user profiles. AI can streamline registration and onboarding by automatically extracting skills from CVs and certificates, pre-filling fields, and guiding users with prompts that help them describe their experience. To do so it can pull information from existing systems such as MIS files, PES profiles, employment and vacancy records and previous interactions with social and employment services (see also the pillar on skills and needs identification). A platform's matching quality is only as strong as the profile data it collects.

Profiles can be adapted for different user types – jobseekers, employers, job counsellors, social workers etc. – ensuring that each of them sees the information most relevant to their role and receives relevant and accessible instructions. For MIS beneficiaries and vulnerable groups specifically, the system can incorporate critical constraints such as health conditions,⁶ care responsibilities, mobility limitations, or the need for flexible arrangements. These factors can be integrated directly into the matching algorithm to generate realistic and accessible recommendations, avoiding making job suggestions that are either unsuitable or incompatible with the users' individual circumstances. This information provides the basis for more accurate and realistic matching, reflecting the specific needs and characteristics of MIS beneficiaries in Greece and Belgium.

AI can make search more intuitive by understanding users and suggesting relevant options beyond simple keyword matches

Matching requires tools that allow jobseekers and employers to manually explore options in addition to receiving automated suggestions. Traditional search tools rely on user-entered keywords and static filters, often producing inconsistent or incomplete results. AI improves both search and matching by understanding the meaning behind queries and incorporating users' preferences, constraints and circumstances directly into the recommendation process.

Rather than relying solely on exact keyword matches, AI can recognise synonymous job titles, related occupations and transferable skills, which is particularly useful for jobseekers unfamiliar with industry and occupational terminology. This can encourage jobseekers to consider occupations that offer a good fit with their skills but may not have been identified through conventional search methods. Such functionality is particularly relevant for MIS beneficiaries, who may otherwise focus on a narrow set of familiar occupations and become confined to unstable or low-quality employment. By identifying adjacent occupations and less obvious opportunities, AI can help widen career horizons and improve employment prospects. Finland's Job Market Finland platform, for example, combines structured criteria matching with natural language processing to generate compatibility scores that capture both direct and indirect matches (TEM, 2023^[3]). This helps jobseekers to better articulate their strengths and may be particularly helpful for those with more complex barriers. It also enables employers to list vacancies using the same skills taxonomy as for jobseekers, creating a more harmonious link between applicants and vacancies (Box 5.1).

Box 5.1. Job Market Finland integrates AI for seamless and modern job matching for jobseekers, employers, counsellors and service providers alike

Finland has undertaken a comprehensive reform of its digital employment services through Job Market Finland and Expert's Job Market Finland, which together form the core customer interface of the new customer information system for Finnish PES. The platform acts as a single meeting place for jobseekers, employers, service providers and PES counsellors. It integrates vacancies, training opportunities, e-services and labour-market information. It is provided free of charge as a publicly funded service, with a parallel private workspace (Expert's Job Market) enabling PES counsellors to use the same data and matching logic in case management and employer engagement.

At the technical level, Job Market Finland relies on competence-based matching powered by natural language processing (NLP) rather than solely on job titles or qualifications. Jobseekers and employers describe skills and requirements in free text, which are then processed using a combination of structured data (including ESCO occupational and skills classifications) and NLP techniques such as TF-IDF and FastText. These methods extract relevant skill signals, cluster related concepts and calculate suitability scores that rank job vacancies for jobseekers and candidate profiles for employers. The same matching logic is embedded both in the public user interface and within the PES customer information system, ensuring consistency between self-service digital matching and counsellor-supported placements. The application gives service providers better information about how they can further develop their services and find new business opportunities.

The implementation of Job Market Finland illustrates several lessons relevant to other PES. Replacing a long-standing legacy system required phased deployment, large-scale data migration and a modular cloud-based architecture built on microservices, combined with agile delivery frameworks. From a policy perspective, the Finnish approach highlights the benefits of skills-based matching for improving transparency and inclusiveness, particularly for jobseekers whose competencies are not easily captured by formal qualifications. At the same time, it underscores the need for robust data governance, continuous model monitoring and close integration between digital tools and frontline services to ensure that AI-supported matching enhances, rather than substitutes for, professional judgement and personalised support.

Source: Vainio (2025^[4]), Presentation during International Workshop 2: Digital and AI-powered job matching and career recommendation tools conducted on 5 November 2025, as part of this project, <https://www.oecd.org/content/dam/oecd/en/about/programmes/dg-reform/using-ai-to-improve-job-matching-tools-for-minimum-income-scheme-beneficiaries/Job-Market-Finland-and-Experts-Job-Market-Finland.pdf>.

At the same time, it can account for constraints and personal circumstances that affect employability, such as mobility limitations, care responsibilities, preferred working arrangements, or availability. This allows search filters and recommendations to adapt dynamically to user preferences such as commuting distance, working hours or flexibility needs. For example, given that most MIS beneficiaries in Greece are women, the platform could prioritise jobs with shorter commuting distances, part-time or flexible working hours. For users facing mobility constraints, it could highlight remote work options, while for those lacking specific skills it could identify relevant training opportunities. Employers can benefit as well, as AI helps them discover suitable candidates even when experience is described in non-standard ways.

AI can facilitate communication and keep users engaged

The matching process also includes mechanisms that enable direct interaction between jobseekers and employers, such as application submissions, messaging, interview scheduling, and progress tracking.

These mechanisms help ensure that matches translate into real engagement and not simply a list of potential opportunities. Communication between jobseekers and employers is critical for turning matches into actual employment. AI can facilitate this process by automating reminders, generating suggested follow-up actions and notifying users of new opportunities. Employers can receive support in grouping applicants, drafting initial messages and scheduling interviews.

Conversational AI, such as chatbots or digital assistants, can also offer tailored search tips and complementary guidance to users through applications or platform navigation, reducing dropout and increasing engagement. These tools can also address practical questions in real time, such as “*How do I write a cover letter?*” or “*Do I need a certification for this job?*”, helping users overcome uncertainty and take the next step. These automated interactions are especially valuable for vulnerable users who struggle with digital tasks, need additional guidance or be less likely to initiate communication independently. A relevant example is *Berufsinformat*, a generative AI chatbot launched by the Austrian PES in 2024. The tool answers questions on occupations, training, and salaries in plain language, and it is accessible in multiple languages. While not a full matching engine, it provides jobseekers with rapid, tailored guidance based on their specific queries (Box 5.2).⁷

Box 5.2. Austria’s *Berufsinformat* provides AI-based concierge support to jobseekers

Austria’s Public Employment Service (AMS) has developed *Berufsinformat*, an AI-powered digital “career concierge” designed to provide accessible, personalised labour market and occupational information to a wide audience, including vulnerable jobseekers. The tool allows users to ask free-text questions (for example, about career pathways, training requirements or emerging occupations) without registration or the provision of personal data, and offers multilingual support across around 90 languages. This low-barrier design aims to improve access for migrants, young people and individuals with limited familiarity with formal labour market institutions, while complying with accessibility standards (WCAG 2.2) and privacy-by-design principles.

Technically, *Berufsinformat* is built as a retrieval-augmented generation (RAG) system that combines large language models with a curated and verified content database owned and maintained by AMS. User queries are embedded and matched against structured and unstructured labour market content using vector databases and ranking models (including BERT-based and GPT-based components), before responses are generated via an Azure-hosted large language model. This architecture is intended to reduce hallucinations and ensure that answers are grounded in validated public information, with explicit source referencing and ongoing content governance distinguishing the tool from general-purpose AI chatbots.

The implementation of *Berufsinformat* highlighted key challenges relevant to other public employment services. Early public scrutiny focussed on risks of gender bias in occupational suggestions, technical robustness and perceived costs. AMS responded by introducing multi-layer bias detection and mitigation (covering inputs, content and outputs), regular audits, manual review of sensitive content, and stronger governance over training data and prompts. The experience illustrates the trade-offs faced by public authorities between innovation, transparency, fairness and operational complexity, and underscores the importance of continuous monitoring, clear accountability and institutional capacity when deploying generative AI tools in labour market policy contexts.

Source: Krishnan Somos (2025^[5]) International Workshop 2: Digital and AI-powered job matching and career recommendation tools, <https://www.oecd.org/content/dam/oecd/en/about/programmes/dg-reform/using-ai-to-improve-job-matching-tools-for-minimum-income-scheme-beneficiaries/Concept-Note-and-Agenda-International-workshop-Digital-and-AI-powered-job-matching.pdf>

AI can streamline screening and shortlisting candidates

Screening and shortlisting candidates are among the most time-consuming and resource-intensive stages of the recruitment process. Employers often receive large volumes of applications, many of which do not meet the basic requirements of the role. As a result, valuable time is spent manually reviewing CVs, identifying suitable profiles, and narrowing down candidate lists. These challenges are even more acute for small employers who may not have dedicated human resource departments or experts or sectors with high turnover, where recruitment capacity is limited. PES usually mediate by screening and shortlisting candidates on behalf of employers, as part of their engagement and support to them, a process that also requires resources and time.

AI can significantly streamline this process by automatically analysing CVs, application forms, and candidate profiles to filter applicants based on predefined criteria, core skills, or required qualifications. It can also identify transferable skills that may not be immediately evident, enabling employers to consider a broader pool of suitable candidates. Advanced models can rank applicants by degree of fit, highlight strengths and potential gaps, and generate concise summaries that help recruiters focus their attention on the most promising profiles.

Earlier matching technologies often required exact word-for-word matches between terms in a vacancy and those in a CV. Today's AI functionalities can interpret meaning rather than relying on identical wording. For example, when a term like “*accountant*” appears, AI can automatically recognise related job titles and synonyms – such as “*account specialist*” – and link them to the candidate's profile, expanding possibilities for more accurate and inclusive matching (Broecke, 2023^[6]).

AI can also support screening by engaging directly with candidates through automated conversations or assessments. These tools can analyse a candidate's responses and behaviours to help determine who is best suited to move forward in the recruitment process. Some systems use interactive tasks or gamified assessments to identify patterns linked to cognitive, social, or emotional traits associated with successful workers. In addition, AI can assist with background checks by reviewing publicly available online information and flagging content that may be relevant to employers. Such practices raise important ethical and privacy considerations that shouldn't be ignored or perceived as purely beneficial. Nevertheless, they reflect the expanding range of AI applications designed to streamline early stages of recruitment and may provide richer insights into candidate suitability.

Screening should ideally occur within the first few weeks from the registration with the PES, which is particularly important for vulnerable groups, as early identification allows counsellors to prioritise individuals facing the greatest labour market difficulties and ensure they receive timely and tailored support.

AI continuously learns from outcomes to improve matching accuracy and detect inequities

Finally, matching requires ongoing refinement based on user behaviour, hiring outcomes, employer feedback, and labour market trends. This ensures that the system remains relevant, accurate, and responsive to changes in supply and demand.

Traditional systems rely on manual updates or periodic reviews to adjust matching rules. Machine-learning models continuously learn from user behaviour and outcomes and update recommendations based on which matches lead to applications, interviews or hires. For example, click data from the jobseeker's job browsing patterns can be used to recommend similar vacancies to those viewed by the jobseeker, thus accounting for the preferences of the jobseeker (e.g. as implemented in the job matching tool in the Korean PES). AI can identify patterns in employer demand, jobseeker engagement and vacancy fulfilment, ensuring the system evolves with labour market changes. It can also flag when certain groups – such as

older workers, migrants or MIS beneficiaries – are under-represented in successful matches, triggering fairness checks and adjustment of algorithms.

Pillar 2: AI can help improve the quality and consistency of vacancy information

Vacancy management is a key component of the matching process. It refers to the tasks and processes that can improve the quality, structure, organisation and usability of vacancy postings with the ultimate objective of enabling more effective matching. AI-powered vacancy management can generate a dual benefit by reducing information gaps for both jobseekers and employers. On the one hand, for MIS beneficiaries and other vulnerable individuals, AI can expand access to a broader range of vacancies and highlight opportunities that match their profiles. It can also provide clearer information about each position, such as required skills or conditions and make it available in a timely and accessible manner. On the other hand, AI can support employers in improving the description of their vacancy postings. Postings of better quality are more visible and clearer to jobseekers, helping employers connect with suitable candidates whose profiles they might otherwise have overlooked.

Vacancies should be sourced from multiple systems, consolidated into one consistent and standard format

To expand opportunities, especially for vulnerable groups, the matching platform must ensure high vacancy coverage. Given that vacancy information is usually fragmented, achieving such coverage generally entails integrating data from several systems to minimise gaps and improve usefulness for both jobseekers and employers. Rather than depending only on vacancies posted directly on the platform, AI can gather and analyse job opportunities from a wide range of sources, including employer submissions, external job boards, open labour market data, and professional networks such as LinkedIn. This can significantly broaden the range of available vacancies, giving jobseekers – especially the vulnerable ones – access to opportunities they might not otherwise encounter.

However, relying on multiple systems introduces several challenges: inconsistent formats, outdated vacancies that are still shown as active, duplicate listings submitted multiple times or through different channels, and even inaccurate or fraudulent posts aimed at misleading job seekers. These issues can have an adverse effect in peoples' trust and confidence in the platform and make it harder for users to find relevant and suitable opportunities. AI can play a key role in mitigating these challenges by automatically consolidating and standardising data across them. This way, the information is presented in a unified and consistent format, identifying duplicates and merging them, detecting and flagging outdated or potentially suspicious listings (e.g. as done through the vacancy-cleaning functions of a tool used by the Swedish PES), thereby ensuring that the final vacancy database is not only comprehensive, but also accurate and trustworthy.

AI can help employers develop clear, complete, and more effective postings

From the employer's side, drafting a job description is typically the first step in the matching process. It plays a crucial role in determining the information available to potential candidates and in influencing their first decision to apply or not. Nevertheless, vacancy descriptions are not always complete, clear or effective enough to achieve their intended goal, in other words, attracting the right talent.

There are multiple reasons why this may occur: employers may assume certain skills or requirements are obvious, overlook important details, prepare job descriptions quickly with limited attention to detail, or simply lack the time or expertise to draft clear and complete postings. This can lead to vague or misleading descriptions, making it difficult for candidates to understand what is actually required. Consequently, the effectiveness of the matching process can be hindered, even when the matching tool that performs the matching is highly accurate. The consequences can be significantly exacerbated for MIS beneficiaries and

other vulnerable individuals, who often rely on basic keyword searches or filters and, due to their limited skills or experience, depend heavily on clear and precise job descriptions. As a result, when descriptions are vague, they are more likely to misunderstand the requirements and self-exclude from applying.

AI-based functionalities are able to refine and improve job advertisements across multiple dimensions, ideally before these are made available to the public. In the first place, AI can identify whether job descriptions are written in overly complex or confusing language, whether their structure is unclear or poorly organised, and whether key skills, qualifications and responsibilities typically associated with a certain job title are omitted. It can also flag other important missing elements, such as essential information about the firm and the specifics of the role in question. Having identified any potential inconsistencies or gaps, the next process where AI can help is suggesting targeted improvements. Such improvements may include clearer and simpler wording, consistent and uniform language, language and key words that can be attractive to candidates, a better organised structure, addition of missing elements as well as consistent employer branding across multiple job postings. In addition, AI functionalities can analyse the content of CVs, job vacancies and occupational taxonomies, and propose a standardised job title that better fits the description as well as the addition of missing or more relevant skills and responsibilities (e.g. VDAB in Flanders, Canada, Germany, Norway). These suggestions can then be reviewed by employers or recruiters, who can decide whether to accept them.

In addition, employers describe roles and skills in very different ways, resulting in job postings that are unstructured, inconsistent, and difficult to compare. This can have various implications. On the one hand, jobseekers cannot easily understand whether they are a good fit while on the other, it is difficult for job counsellors and social workers to match candidates to suitable opportunities. As a result, mismatches occur, important skills may be overlooked, individuals may miss opportunities that actually fit their profile, and employers may fail to connect to the right talent. AI addresses this problem by extracting skills from job descriptions, mapping them to standard classification frameworks like ESCO, and automatically categorising vacancies by sector, occupation and other characteristics such as experience levels (e.g. this is done in matching tools in Finland, Flanders, Wallonia, Luxembourg). This improves searchability and enables more accurate matching between job requirements with candidate profiles.

AI functionalities can detect bias in job descriptions and make them more inclusive

Job postings may include biases or elements that undermine fair access for all potential candidates. These biases can be related to gender, age, disability, ethnicity, or socio-economic background and could be reflected not only in the language used but also in the requirements of the description itself. For instance, reproducing gender stereotypes, asking for younger candidates or physical abilities that are not truly needed or even degrees that are not necessary for the job. For instance, women may perceive a role as less appealing when job advertisements use masculine-coded terms such as *leader* or *dominant* (Broecke, 2023^[6]).

AI can address these issues in several ways. Firstly, AI models trained on large datasets can detect biased or exclusionary phrases or words in job descriptions and suggest replacing them with neutral and inclusive language (e.g. the tool used by the French PES automatically flags wording that may discourage women, older workers or other groups helping employers adjust their vacancies). AI can also compare the job to thousands of similar roles and flag whether there are unnecessarily excessive requirements that may limit access and reduce candidate diversity. In this case too, AI is not only able to flag the issues but rewrite the text based on diversity, equity and inclusion standards. Inclusivity and fair access can also be enhanced by using AI to identify overly complex phrasing and then simplify the language so more candidates can understand it and hence apply, as well as to encourage richer vacancy information (with elements such as hours, flexibility, transport options, childcare) so that job listings better reflect and accommodate the diverse needs of users. The aforementioned functionalities can be particularly beneficial for encouraging applications from vulnerable groups, as they help ensure that postings are more inclusive, accessible, and

less likely to discourage – unintentionally or intentionally – candidates who already face greater labour market barriers.

AI algorithms can help employers to adjust jobs to accommodate people with weaker labour market prospects

The aforementioned functionalities focussed on helping employers develop more inclusive job postings, while also identifying potential bias that undermine fair access for all potential candidates. The functionality discussed here goes a step further as it can provide employers with support on how to adjust existing roles to accommodate MIS beneficiaries (and individuals facing labour market barriers more broadly). For even more successful results, this can be done in co-operation with employer counsellors, as they are the ones who provide support to employers from the PES end.

While AI cannot redesign jobs on its own, it can analyse job descriptions as these are provided in vacancies posted by employers and break them down into specific tasks and skill requirements, using recognised classification systems such as ESCO. Based on this analysis, the system can identify tasks that could potentially be reorganised or even simplified to create roles that better match the skills and capacities of individuals with limited experience or qualifications. For example, in sectors such as logistics or retail, certain tasks, such as preparation of orders or organisation of storage could be grouped into entry-level roles that provide a feasible entry point into employment for these target groups.

While information on workplace adjustments, flexible job design, mentoring possibilities, or the use of available support services such as job coaching or job shadowing, or training programmes offered within the workplace are not typically included in job postings, they could be systematically incorporated into job descriptions in co-ordination with employers. This would make opportunities more accessible and transparent for individuals with vulnerabilities and additional support needs.

Pillar 3: AI functionalities can help identify the needs of MIS beneficiaries as well as their skills and make them more visible to employers

AI functionalities embedded in a matching platform can help identify the needs and skills of MIS beneficiaries and other vulnerable jobseekers more accurately, thereby building more structured and complete profiles. These insights can be then used to connect individuals with realistic employment opportunities based on available vacancies, as well as to suggest training or other measures should specific gaps be identified. AI can also flag individuals who require additional support, providing staff supporting end-users such as job counsellors and social workers with information that can help them prioritise and tailor their assistance accordingly.

AI can help identify the skills and needs of jobseekers and therefore support personalised matching

Identifying the skills and needs of jobseekers is a fundamental step in effective matching. Yet many individuals struggle to articulate their skills and abilities, recognise skills they may possess but cannot easily track, or understand how their skills and prior experiences can relate to labour market requirements. This challenge is often more pronounced among vulnerable jobseekers, who may have limited work histories, fragmented careers, or limited skills.

AI can help overcome these barriers by analysing information provided by jobseekers. Such information may range from past jobs and education to informal experience, or even short descriptions of tasks performed. It can then map this information to recognised skills frameworks and occupational taxonomies or job dictionaries. Through this process, AI can identify relevant skills that jobseekers may not know they possess or may have but do not explicitly report and highlight potential gaps. These functionalities can combine information from various administrative and non-administrative sources, such as jobseeker data

and employment records, preferred occupations and platform behaviour to provide a more complete and accurate picture of each person's abilities and circumstances. For example, in Greece, MIS beneficiaries often end up in roles different from their stated preferences, which could be partly explained by gaps in how their skills are captured. AI can help identify transferable skills and suggest occupations that users may not have considered but are compatible with their experience.

AI-based skills assessments can also be integrated into a matching platform to evaluate a wide range of competencies – occupational, digital, soft, basic, or language skills – or even to uncover informal or transferable abilities that may not be captured in a traditional CV. These insights are particularly valuable for individuals with limited formal work experience or formal certificates. In addition, AI can help identify barriers that affect employability by analysing indicators such as prolonged unemployment, limited work histories, or low engagement with employment services. This enables the system to flag jobseekers who may require more intensive support or specialised services.

Together, these functionalities contribute to the development of a consistent and comprehensive skills profile that can in turn generate more opportunities for improved matching and personalised guidance. Having this understanding of jobseekers' profiles, AI algorithms can then prioritise vacancies that meet individual constraints or preferences. For example, vacancies that are close to the jobseeker's location, offering flexible hours, or aligned with care responsibilities or mobility limitations. Users can also rely on filtering options should they want to narrow down the opportunities suggested by the tool. For instance, contract type, work modality (remote, hybrid, in-person), wage levels, or access to childcare support.

AI can also compare each individual's strengths and skills with labour market requirements and highlight potential gaps. Based on this analysis, it can provide personalised guidance, accompanied by clear explanations and the reasoning behind the relevant recommendations. For vulnerable jobseekers, such as those with limited work experience, low qualifications, weak digital skills, or a history of long-term unemployment, AI-generated recommendations can sometimes seem opaque or difficult to trust or follow. Providing a clear, simple rationale behind each suggestion is therefore particularly important. Transparent explanations help jobseekers understand why a certain vacancy or occupation is relevant to and suitable for them, which increases confidence in the system and encourages follow-through.

AI can support jobseekers in expanding their job search strategies or encouraging them to consider a broader set of occupations through a range of practical steps often relying on behavioural insights.⁸ For example, it can prompt a user to expand their search radius by 10%, as such a strategy could increase the number of suitable vacancies by 20%. AI can also identify near-match occupations, showing individuals roles that align with their existing skills – as second or even third best fits – and what additional competencies they may need to develop to qualify for them.

The microdata analysis shows that vulnerable jobseekers are often concentrated in part-time, temporary, or unstable forms of employment. In such cases, AI could indeed recommend complementary job opportunities that match their available hours, skills, and schedule constraints, alongside full-time alternatives. By analysing work patterns, location, and required skills, AI can identify suitable secondary roles that help individuals top up their income or transition gradually towards more stable jobs. This type of tailored recommendations can be especially valuable for vulnerable individuals who may be employed – yet in fragmented or low-hours jobs – and who need flexible options to improve their overall labour market situation. Finally, to support engagement, AI can further break down recommended actions into small, manageable steps, helping jobseekers more easily act on personalised advice and progress toward suitable employment opportunities.

AI can assist jobseekers in articulating their skills and experience in a clear and compelling way

Even after identifying their skills and needs, many jobseekers may struggle to present themselves effectively to employers. This is particularly true for vulnerable jobseekers, who may be unfamiliar with key job search processes such as drafting a CV, a cover letter and preparing for an interview or just feel uncomfortable in doing so.

Similar to its role in improving job descriptions, AI can draw on large databases of CVs and job vacancies to identify relevant skills or experiences a candidate may have missed and suggest improvements to their CV or cover letter (e.g. these functionalities exist in the matching tools of VDAB in Flanders as well as the French PES). An AI algorithm can also recommend keywords that may increase the likelihood of being shortlisted for an interview. It can also help candidates present their skills more effectively to employers during an interview, for example via the help of tutorials or written guidance.

Especially for the most vulnerable jobseekers, AI can greatly simplify the application process. Instead of submitting a fully developed CV, applicants can draft and provide only a few bullet points describing their key competences and basic information. AI can then transform these inputs into a complete, well-structured CV or automatically populate the employer's application form when required. As a consequence, jobseekers save significant time and effort on the one hand while on the other their profiles gain more visibility and are less likely to be overlooked by employers – an advantage of particular importance for the most disadvantaged candidates. For individuals in vulnerable situations who may lack the skills, confidence, or resources required to engage with AI-assisted application systems, this functionality can be complemented by additional support measures such as support from a job counsellor, guided interfaces or digital skills training (for a detailed discussion on this topic see also Chapter 6 – Section 6.3.2.).

AI can promptly identify individuals who require additional support and guide them towards the right human assistance

Even when algorithms operate highly accurately and provide high-quality matching suggestions, some individuals – particularly those facing complex barriers – may still struggle to navigate the job search process on their own. Vulnerable jobseekers may experience low confidence, limited digital or labour market literacy, or practical obstacles that prevent them from acting on recommendations. As a result, they may need an additional push or tailored human support.

AI can help address this challenge by identifying when users are struggling or disengaging and prompting them to take appropriate action. For example, if a jobseeker repeatedly receives suitable matches but does not apply to these positions, or if they abandon applications halfway, the system can also provide concrete, actionable recommendations that can help them move forward. These can include direct prompts that encourage users to take the next step, such as *“Go ahead and apply, you meet most of the requirements”*, or motivational messages like *“Congratulations, you’re only one step away from your dream job!”*. In the case of Greece, many GMI beneficiaries were already registered with DYPA before applying for entering the scheme. In practical terms this implies that being “registered” does not necessarily lead to activation or strong labour market outcomes. The machine platform should therefore use behavioural nudges such as reminders, simple tasks, or step-by-step guidance, to help jobseekers stay engaged and act upon the recommendations offered. In addition, the low transition rates into employment indicate the need for intervention as early as possible. This suggests that the platform must identify individuals at higher risk of long-term unemployment early on, so that job counsellors intervene sooner and offer more intensive support when needed.

Importantly, when behavioural patterns indicate that a jobseeker may benefit from more personalised, human assistance, the system can automatically prompt them to connect with job counsellors or social workers. For instance, if an individual has not logged in the platform for several weeks, shows signs of

distress in chatbot interactions, or repeatedly applies to unsuitable roles, the platform can recommend scheduling an appointment with an employment counsellor or social worker. In this way, AI not only improves matching per se, but also acts as an early warning system (EWS), helping ensure that individuals who need extra support are quickly identified and directed to appropriate human assistance.⁹ First, early detection can help prevent vulnerable jobseekers remaining in limbo for long while. Second, it can help relevant institutions take action before problems escalate. In Belgium, since more than half of new entrants remain on the scheme after one year, the platform should integrate early-warning signals that identify users at risk of long-term dependency, who may require more intensive activation or in-person support.

Pillar 4: AI can help end users make more informed decisions

End users of matching platforms – whether jobseekers, employers, or counsellors and social workers – often struggle to translate labour market information into decisions that are meaningful for their specific needs. AI can bridge this gap by transforming complex labour market data into digestible information or even personalised recommendations, so platform users make well-informed, forward-looking decisions.

AI can turn complex labour market information into actionable insights

AI can analyse large volumes of data, both historical and real-time, to identify patterns in labour market trends, industry demands, salary expectations, and high-growth sectors. It can also predict future labour market needs and trends, offering valuable insights to the stakeholders interacting with the matching platform.

Jobseekers, employers, and employment services often struggle to interpret labour market information (LMI), which is typically fragmented, overly technical, or quickly outdated. As a result, many end-users make decisions based on incomplete or inaccurate perceptions of labour market conditions.

AI can address this challenge by analysing large volumes of both historical and real-time data to detect patterns, trends, and shifts in labour demand. By processing job postings, economic indicators, company growth signals, and sectoral developments, AI can generate clear and timely labour market insights that help users understand where opportunities are growing or declining. This allows jobseekers to make more informed decisions about where to apply, which skills to develop, and how to adapt their job search strategies in line with market realities. For jobseekers, this may include guidance on sectors with rising demand, suggestions for skills to develop, or alerts about emerging roles aligned with their profile. For employers, AI can highlight labour market tightness, the availability of talent for specific roles, or competitive hiring trends. PES can use these insights to shape counselling, targeting, and programme design.

In Greece, the gap between the occupations MIS beneficiaries want and the jobs they actually obtain suggests that many users may not have accurate information about labour market demand or their own skill profiles. The platform should be therefore able to provide information regarding in-demand occupations, showcase to users which jobs match their skills and aspirations more closely, and highlight realistic job pathways. Ideally, the presentation of such information should be done in a clear and easy to understand way. Large discrepancies between preferred occupations and actual job outcomes may signal unrealistic expectations or barriers not captured by the system's algorithms. The platform should be able to flag such cases to job counsellors so that more personalised guidance can be provided. In the case of Belgium, the significant differences between regions underline the need for region-specific labour market intelligence. AI tools can help by adjusting recommendations to reflect regional demand, available sectors, and common hiring practices.

AI can improve employers' understanding of who they reach and where to concentrate their efforts

Employers often lack visibility into whether their job advertisements are reaching a broad and diverse pool of candidates, which can unintentionally limit access for underrepresented groups. Without such information, employers cannot easily tell which recruitment channels work well or where outreach gaps persist.

AI-powered analytics are able to assess who is engaging with job postings, analyse the relevant data and therefore identify groups that are underrepresented in applicant pools. They can also detect where outreach is falling short. In other words, AI can provide employers with insights into which audiences they are reaching effectively, and which ones require additional effort. In practical terms, this can be done by comparing these patterns to broader labour market benchmarks at the sectoral, national and even regional or local levels. This helps employers refine their recruitment strategies, increase their reach, improve diversity in applicant pools, and engage more effectively with vulnerable or overlooked groups.

AI algorithms can generate insights that support policy design, particularly training and ALMPs

As users interact with the platform in multiple ways and for various reasons (such as exploring long-term career options, searching for training opportunities, or following recommended pathways), the system collects valuable information on skills, career interests, barriers etc. At the same time, labour market data also feed in the platform and therefore data on skills demanded and emerging labour market patterns are also being accumulated.

AI algorithms can analyse this information in an aggregated and anonymised form to identify broader trends. For example, the system could highlight which training programmes are most frequently recommended or searched for, which career transitions are most common among MIS beneficiaries, and which skills appear most often in demand across different sectors. It could also detect emerging occupations or shifts in labour market demand by combining user behaviour with vacancy postings.

These insights can be particularly valuable for counsellors when recommending career pathways and ALMPs. For policymakers, the aggregated results can help inform the design of programmes whether training or other ALMPs, identify emerging skills needs, and support more evidence-based policy decisions.

Pillar 5: AI algorithms can facilitate career management related decisions for both MIS beneficiaries and employers

By integrating career recommendations into the platform, the system would not only match jobseekers to current vacancies but also guide them towards occupations with stronger employment prospects, including those that may require additional skills or experience. These functionalities are particularly relevant for vulnerable groups, such as MIS beneficiaries or long-term unemployed individuals, who may face multiple barriers to labour market integration and may benefit from clearer guidance on realistic and sustainable career trajectories.

AI can link jobseekers to support services, helping address barriers that may need to be resolved before or alongside employment

A key AI functionality of the career recommendation solution should be its ability to automatically suggest and direct jobseekers to services beyond employment. This is particularly relevant for MIS beneficiaries and other vulnerable groups who often face complex and multiple barriers that may hinder their employment prospects. Such challenges can include housing insecurity, psychological distress, caregiving

responsibilities, or lack of childcare. Addressing these issues is often a prerequisite for securing or sustaining employment. The platform could therefore guide users towards relevant social and psychological support services, community-based assistance, childcare or eldercare facilities, and even trusted external websites offering practical information.

More broadly, digital career recommendation tools should be embedded within a wider continuum of employment and social support services. The outcome of a career recommendation is often not a job itself, but a pathway involving training, certification, social support, and ultimately employment. If these complementary interventions are not available, recommendations may be difficult to translate into practice. Countries with more advanced approaches increasingly integrate digital career guidance with active labour market programmes and social services. For example, Korea's one-stop Employment Welfare Centres combine digital tools with personalised support for housing, financial assistance, and mental health needs, recognising that vulnerable jobseekers often face multiple barriers that need to be addressed simultaneously (Box 5.3).

Box 5.3. Korea's One-Stop Shops to support vulnerable jobseekers

Korea has developed an integrated network of one-stop shops that unify employment, welfare and re-employment services to better support jobseekers facing complex barriers to labour market access. Originating in the late 1990s with Employment Stability Centres and evolving through successive reforms into Employment Welfare+ Centres, these facilities now operate nationwide and aim to provide seamless linkage between income support, personalised counselling, job training and referral services. Core services include targeted counselling for specific groups (such as youth, women with career interruptions and low-income jobseekers) and co-ordinated support across agencies to address obstacles like skills gaps, financial instability or care responsibilities.

Beyond traditional face-to-face support, Korean authorities have begun to introduce digital and AI-enhanced components to strengthen job matching and service delivery within the one-stop ecosystem. Recent initiatives include AI-based online and mobile consultation systems that augment in-person counselling with data-driven diagnostics of jobseekers' skills, preferences and local labour market information, supporting more tailored employment pathways. These digital tools are designed to complement case management, improve the responsiveness of services to individual needs and expand the reach of employment support for those who might otherwise be disengaged from formal systems.

Implementation of the one-stop model has highlighted important operational and governance considerations for multi-service delivery. Sustained inter-agency co-ordination, adequate staffing and counsellor capacity are needed to deliver comprehensive support that spans income support, training and placement assistance. As services become more digitalised, ensuring equitable access remains a strategic priority. This is particularly so for individuals with limited digital skills or connectivity. Korea's integrated service delivery, supported by evolving digital tools, aims to enhance inclusivity in labour market support while also underscoring the need for ongoing monitoring, capacity building and alignment of digital and in-person offerings.

Source: Yeo (2025^[7]), Presentation during International Workshop 1: Identifying employment obstacles and opportunities for vulnerable groups conducted on 15 May 2025 as part of this project, <https://www.oecd.org/content/dam/oecd/en/about/programmes/dq-reform/using-ai-to-improve-job-matching-tools-for-minimum-income-scheme-beneficiaries/Integrating-the-most-vulnerable-jobseekers-The-examples-of-Korea-one-stop-shops.pdf>.

Taking into consideration, the results of the data analysis in Chapter 4, this functionality can be particularly useful for the subset of MIS beneficiaries who have been detached from the labour market for an extended duration, as well as those who are unable to work due to various circumstances. Within this framework, this functionality would be particularly valuable if Greece and Belgium developed a centralised map of social services, allowing the platform to automatically suggest nearby or relevant support options based on each user's profile following the example of the Lithuanian PES. The information generated by the platform could also support case managers, including job counsellors and social workers, in making informed decisions about referrals and support measures while retaining responsibility for final decisions.

The findings from the data analysis further reinforce the importance of this functionality. While MIS beneficiaries participate in similar types of ALMPs as the general jobseeker population, the most vulnerable groups exhibit particularly low participation in ALMPs overall. This may reflect limitations in the targeting and suitability of existing measures. In such cases, the platform could recommend alternative or complementary forms of support, including social, health, or counselling services, either alongside or prior to labour market interventions.

AI can provide recommendations on pathways beyond immediate placement to support career growth and sustainable labour market integration

The matching related functionalities of the job matching platform allow the matching of jobseekers with entry level opportunities, according to their profiles and based on labour demand. This functionality goes further beyond immediate placement to support individuals if a feasible match is not possible. Instead of suggesting the first available vacancy, AI algorithms can – by analysing patterns in historical data on the one hand and a person's skills, work history and interests on the other – identify postings or occupations (even when such postings are not yet available) that have more frequently led to longer-term employment opportunities. The system then can suggest jobs that could serve as entry points to a longer-term career or better jobs. This would allow individuals to move towards more stable and better-quality employment over time. Longer-term or better jobs can be defined using observable labour market outcomes such as wage progression, employment stability, contract duration and jobs requiring higher skills. The definition may vary depending on the country context and policy priorities and can be refined over time.

By analysing labour market data, including at a regional/local/sectoral level, this component of the platform could also identify occupations that are growing in specific regions, sectors, or local labour markets. Within this framework, information from administrative sources like employment data and non-traditional sources such as job vacancy data can be useful inputs for AI algorithms to be able to detect patterns that indicate which sectors and most importantly occupations are experiencing increasing demand (or on the contrary are experiencing slowdowns and therefore could be avoided). These can be complemented, wherever and whenever feasible, with information derived from selected sectoral reports and business studies to enrich the analysis. The results can be presented to users as potential career opportunities. As part of this functionality, predictive models such as early warning systems could also be deployed to detect individuals at risk of job loss and therefore cycling back into unemployment.

The current support systems in both countries prioritise immediate labour market entry over sustainable integration. The data analysis in Chapter 4 indicates that a significant share of MIS beneficiaries in Greece is employed while simultaneously enrolled in the scheme and receiving the relevant benefit and services. This implies that the income is not sufficient to support their independent living. Another important finding is that MIS beneficiaries are frequently employed in precarious jobs with limited prospects for career progression. Employment spells also tend to be short, with many individuals returning to unemployment after relatively brief periods (e.g. around eight months), pointing to a pattern of recurrent labour market instability. Furthermore, transitions into employment do not consistently lead to improved outcomes, as only a small share of beneficiaries (approximately 13%) move into higher-quality jobs, while the majority enter positions of similar or lower quality. Similarly, the data analysis for Belgium shows that one in two

MIS recipients remain on the benefit one year after signing up, and one in three, three years after. In addition, MIS beneficiaries – especially those with Article 60 experience – are often channelled into short-term, low-quality jobs (such as in the service sector as well as administrative and support services including temporary agency work and cleaning) with limited upward mobility, resulting in repeated transitions between the MIS scheme, unemployment benefits and employment.

In this context, AI-driven pathway recommendations can really help those individuals in accessing and transitioning into more profitable, longer-term and sustainable employment opportunities, until they exit cycles of precarious employment and benefit dependency. In addition, it can contribute to reducing the duration between successive employment spells, especially if combined with strong and proactive outreach efforts. The tool could also use outcome-based data to highlight career pathways and job transitions associated with more positive and sustainable outcomes, while signalling those linked to recurrent instability, and based on these insights guide individuals towards potentially better choices. In the case of Belgium, higher persistence on the MIS scheme and lower labour market integration rates among MIS beneficiaries in certain regions (i.e. Brussels and Wallonia) are observed. This is even more prominent in the case of unemployment benefit recipients who previously participated in the Article 60 programme, who are found to have substantially lower employment rates than those without prior programme participation. While this partly reflects negative selection, it also highlights that initial activation measures alone are not sufficient, reinforces the need for more targeted support and underscores the need to support progression into stable, higher-quality jobs. AI-driven pathway recommendations are particularly relevant in this regard, as they can incorporate regional labour market data to propose personalised and context-specific career pathways, improving the chances of sustainable integration.

This type of functionality could be particularly useful for vulnerable jobseekers, including MIS beneficiaries. Many people in this group have fragmented work histories, limited or even no formal qualifications or unclear career direction. As a result, they may repeatedly move between short-term or low-quality jobs. In addition, these individuals may not be familiar with local labour market dynamics or emerging employment opportunities. AI-supported functionalities can showcase alternative occupations that require similar competencies and highlight realistic progression routes. This helps jobseekers understand whether they can arrogate positions that can lead to more sustainable employment and therefore the steps they should follow to get into these roles.

For job counsellors and social workers, such AI functionalities can help them propose more targeted career pathways, rather than focussing only on immediate job placement. At the same time, they can direct individuals towards occupations with stronger employment prospects and better long-term opportunities. For beneficiaries experiencing recurrent unemployment spells, the system could automatically trigger alerts to counsellors so they can intervene providing more intensive support as needed (in conjunction with the functionality for referrals to human-led services discussed in Chapter 7). As with all AI related recommendations, such recommendations too are only indicative and can be taken into consideration by counsellors as appropriate and relevant.

A recurring issue for counsellors is that jobseekers may focus narrowly on familiar occupations. This issue may be particularly acute for MIS beneficiaries, who often have more basic skills and may lack confidence to expand their job search horizons. This can trap individuals in a cycle of unstable jobs. AI-enabled career orientation tools can broaden these horizons by suggesting alternative occupations that build on existing skills. These tools build further on those focussed more narrowly on job matching, by providing jobseekers (and counsellors) suggestions as to how existing competencies may be added to or developed further, to unlock new career pathways, in the same or different professions. These recommendations may also incorporate training or placement suggestions as part of the pathways towards a new career.

Arbetsförmedlingen in Sweden provides a relevant example. Its new AI system was explicitly designed to recommend alternative occupations and career pathways beyond the individual's original search, using machine learning and graph analytics to highlight related fields. Occupations are recommended which

build upon an individuals' existing competencies (Brioscú et al., 2024^[1]). This guidance helps to provide inspiration that can help jobseekers adapt to emerging opportunities in the labour market and to continue development of skills to unlock different career paths (see Box 5.4 for a discussion about digitalisation and AI use within the Swedish PES). For MIS beneficiaries, who may not have formal qualifications, this approach makes transferable skills more visible and supports more inclusive matching. There are plans to extend the tool to provide more specialised job recommendations to jobseekers with a disability (Brioscú et al., 2024^[1]), as well as improve the tool design with newer AI technologies.

Box 5.4. Arbetsförmedlingen deploys several digital tools enhanced by AI to support its operations and processes, including for job matching and career recommendation purposes

Using both jobseeker profile information from administrative data and vacancy information, the AI Job Matching tool suggests job opportunities to users by extracting key competency and occupational keywords. The PES website provides access to additional tools that are freely available to anyone including both registered and non-registered jobseekers and workers which can provide information about each occupation, recommend career pathways including jobs beyond the profession they initially selected, education and training opportunities, study and career counsellors in their municipality to book individual counselling sessions – features that are being continuously evaluated and refined using customer feedback and analysis of user behaviour.

Job vacancies, posted by employers as well as imported from external websites, are collected in *Arbetsförmedlingen's* Job Bank, *Platsbanken*. Employers can search for candidates, access recruitment guidance and resources, and apply for schemes such as wage subsidies, new start jobs, training, and internships. Since 2023, *Arbetsförmedlingen* employment officers use an AI application to review job advertisements by detecting fraudulent or discriminatory content. In 2024, a large-scale fraud detection system was introduced, combining multiple advanced techniques, including machine learning, deep learning, and network analysis across extensive datasets. *Arbetsförmedlingen* also deploys AI to generate labour market insights by analysing job postings to identify skill needs, education requirements, as well as task composition across occupations. These insights support monitoring labour demand and feed into the job-matching and career recommendations tools that *Arbetsförmedlingen* has at its disposal (Brioscú et al., 2024^[1]).

Source: Study visit to Arbetsförmedlingen, the Swedish PES conducted in February 2026 as part of this project.

Following the identification of gaps in skills or experience, AI can direct individuals to skills development programmes and ALMPs

AI functionalities can also recommend training opportunities and ALMPs that help jobseekers overcome the gaps and bridge them with employment. After analysing a person's profile, such as their skills, qualifications, work experience and career interests, the system can map this information against labour market requirements derived from job vacancy data and occupational classifications (e.g. ESCO). By comparing the individual's existing skills with those required for target occupations, the system can identify specific skill gaps. Based on these gaps, the platform can then suggest relevant programmes or employment support measures that would improve the chances of finding or even retaining work. These programmes can include a range of options, such as training programmes, short courses, apprenticeships, certification schemes or other ALMPs. Personalised nudges and prompts can be used to further encourage taking up these options.

Naturally, training is the most straightforward outcome of such a functionality, as it helps address skills gaps and can lead to employment, which is the ultimate objective of a comprehensive matching platform.

Recommendations on training, upskilling or reskilling programmes can span across various topics including on improving technical/vocational, basic, soft, language, computer skills. It can also highlight training programmes that have led to positive employment outcomes for jobseekers with similar characteristics in the past. To make these recommendations stronger and more convincing for users, the platform could provide some indicative information on how completing a programme may be associated with improved employment prospects or with access to a wider range of job opportunities. Providing such practical explanations can help users better understand the rationale behind the suggestions, build trust in the tool, and encourage them to act on the recommended steps.

Potential integration with individual learning accounts (if and when such systems might be available) could further strengthen this functionality.¹⁰ The platform could then inform users about the training opportunities they are eligible for, the funds available to them, and how these can be used to finance recommended courses. This would make it easier for individuals to translate career guidance into concrete action by directly linking suggested training options with the financial resources available to support participation.

Other recommendations may include short courses or certifications that can help users move from entry-level positions to better-quality jobs. The platform could also suggest seminars, mentoring programmes or workshops on topics such as job search strategies or CV preparation where these are identified as needed. Beyond informal training programmes, the platform could also recommend formal education pathways where these are relevant for an individual's career progression. While training courses often help address immediate skills gaps, some career transitions require more structured educational pathways that lead to recognised qualifications. If interconnected with national education data systems, the platform could identify and suggest relevant educational programmes at different levels. These may include university degrees, formal VET programmes or post-secondary professional programmes. The system could also recommend second-chance education opportunities, such as programmes that allow adults to complete secondary education or obtain equivalent qualifications, which can be particularly important for individuals with low educational attainment. For example, if a user expresses interest in moving from their current care assistant role to a licensed nurse, the platform could highlight the relevant formal education pathways required for this transition, including university degrees in healthcare or vocational nursing programmes. To support even more informed decisions, the platform could outline key information about these programmes, such as entry requirements, duration, location, and potential employment outcomes/testimonials from graduates. Where available, it could also indicate whether financial support, scholarships, or learning accounts could help cover participation costs.

In addition to training and education opportunities, the platform could also recommend other types of ALMPs offered by the PES. These may include subsidised employment schemes, work experience placements, public works programmes, initiatives supporting the creation of a new business or other less common ALMPs. Such measures can provide immediate opportunities to gain work experience, maintain labour market attachment, or generate income while individuals continue developing their skills. These recommendations could be based on a combination of user data, such as skills, work history, identified barriers and aspirations as well as administrative data on previous participation in ALMPs and employment outcomes of individuals with similar characteristics. They could also draw on information about local labour market conditions. Programme availability should be also taken into consideration.

Recommendations should be tailored to each individual. In some cases, although training may be beneficial in the longer term, a jobseeker's immediate priority may be to secure a source of income or re-enter the labour market after a period of inactivity. In these situations, programmes such as subsidised employment or work experience placements may represent a more appropriate first step. The platform could take these inputs into consideration and suggest the types of programmes that best match a person's needs at a given moment, helping counsellors and jobseekers identify pathways that combine both short-term stability and longer-term career development.

This functionality could be particularly advantageous for vulnerable jobseekers, including MIS beneficiaries who are often found to have been out of the labour market for extended periods. The tool can support their reintegration by connecting them with relevant training and ALMPs, designed to improve employability. Many individuals in this group may not know which training programmes or ALMPs exist, or which ones are most relevant for their situation. AI can simplify this process by presenting a limited set of clear and realistic options, helping users focus on opportunities that are most likely to lead to employment. Furthermore, this type of guidance can make career planning more understandable and manageable. Instead of searching through many programmes, they receive targeted suggestions that match their profile and local labour market needs. This can increase motivation and help them take practical steps toward improving their employability. This functionality can prove beneficial for counsellors and case workers, too, as they can propose more evidence-based pathways and save time when assessing possible interventions. Nevertheless, these results should be seen as indicative as the final decision for a referral should come from a human.

As mentioned above, in the case of Belgium, the data analysis reveals weaker employment outcomes among former Article 60 participants once they transition into the unemployment system. This highlights – in addition to improving job quality and aligning placements with local demand – combining Article 60 with training as well as post-placement support. AI can support this process by identifying skills gaps and directing individuals towards complementary measures such as relevant training programmes and other ALMPs, helping to move beyond Article 60 as a standalone measure and towards more durable labour market integration.

AI can go beyond identifying skills to making them visible, interpretable, and usable in the labour market

Another potential use of AI within a career recommendation tool is to support skill recognition, going beyond simple skills identification. In other words, the objective is not only to detect skills but also to make them visible and usable in the labour market. Many jobseekers, particularly those from vulnerable backgrounds, face difficulties in demonstrating their abilities to employers. Hiring processes often rely heavily on formal qualifications, certificates, or clearly documented work experience. However, many individuals possess valuable skills acquired through informal work, volunteering, household responsibilities, or other life experiences that are rarely recorded in formal ways and therefore are very difficult to be proven.

AI algorithms can help address this gap by analysing information provided by users, such as descriptions of tasks performed in previous jobs, informal work experience, or everyday activities (usually performed in the form of skills assessments), and translating this information into formal job and skills requirements. In doing so, the system can map these experiences to established skills frameworks, such as the European Skills, Competences, Qualifications and Occupations (ESCO) classification. This process allows informal and previously unrecognised competences to be expressed in a structured way that employers can easily understand and value, even though they cannot really assess the exact tasks reported nor how well those tasks were performed. This is particularly valuable for the jobseekers themselves as they can relate their own strengths to the skills demanded in postings as well as job counsellors who can support them better using these inputs.

For example, a jobseeker who has spent several years caring for their elderly parents may not consider this experience relevant to employment. However, an AI-enabled system could analyse the tasks performed such as providing daily assistance, managing medication and nutrition planning, managing household expenses, scheduling appointments and co-ordinating with healthcare providers, and translate them into recognised skills such as care co-ordination, basic health support, time management, and communication. These skills could then be mapped to occupations in sectors such as social care, healthcare assistance, or community support services. By making such skills visible and comparable to

formal qualifications, the tool can help broaden the range of opportunities available to individuals whose experience is not captured through traditional credentials even across different labour markets.

Training and certification schemes can be integrated within the environment of the job matching and career recommendation platform

Many jobseekers, particularly those further from the labour market, face skills gaps that limit their access to good employment opportunities. At the same time, they may struggle to identify relevant training programmes or obtain certifications that would help them demonstrate their competences to employers, especially without support from a job counsellor or social worker.

Career recommendations solutions can integrate active learning modules and certification opportunities directly within their digital environment. By integrating training courses, certification schemes, and learning resources directly into the platform, users can easily identify programmes that address their specific skills gaps and support their career goals. The platform could redirect users to external training providers offering relevant courses. Training providers could in turn use the platform to upload and showcase the programmes they offer, making them more visible to jobseekers and counsellors. The platform could also notify users about upcoming training sessions, newly available courses, or local training opportunities relevant to their profile. In this way, the platform becomes not only a tool for finding jobs but also a mechanism for continuous learning and skills development.

Basic reminders such as notifications before the start of a course or alerts for upcoming sessions can be delivered through standard automated systems. AI can enhance this functionality by enabling personalised prompts. For example, AI models can analyse the user's profile as well as their engagement patterns to identify individuals at risk of dropping out and tailor the timing, frequency, and content of messages accordingly. Such features can help encourage participation and engagement in recommended training programmes and reduce dropout rates.

Over time, and if such tools prove effective in improving labour market outcomes, employers may also have an interest in supporting their further development. For instance, large employers or groups of employers facing similar skills shortages could contribute to the design or co-financing of training programmes hosted on the platform, ensuring that the courses offered respond to real labour market needs while helping build a pool of qualified candidates.

AI can significantly enhance career planning and task management

Another potential use of AI within the career development component of the job matching platform is to support individuals in organising and managing their career progression more effectively. Many jobseekers, and especially those facing multiple barriers, often struggle not only with identifying suitable opportunities but also with structuring the steps required to move towards better and sustained employment. Career development can involve numerous actions some of those taking place in parallel, such as improving a CV, drafting cover letters, completing training courses, exploring alternative occupations, preparing for interviews, expanding job search strategies and others. Without clear guidance, these tasks may appear overwhelming, leading individuals to disengage from the process.

AI-enabled career development solutions can help address this challenge by translating career recommendations into clear and manageable actions. To do so, the system would need access to data such as the user's education, skills, work history, employment preferences, participation in previous ALMPs and trainings, and any identified barriers to employment, combined with labour market information on vacancies, skills requirements, typical occupational transitions, available ALMPs and training opportunities. Based on these inputs, AI can identify gaps between a person's current profile and a target occupation and generate a personalised structured career plan that breaks the pathway towards career advancement into intermediate smaller steps. Such steps may include for example, intermediate jobs,

training options, and skill-development actions. This plan can help users prioritise tasks, track their progress, and mark completed actions and can be validated and reviewed by the job counsellor from time to time. This functionality would rely on a combination of AI approaches, including recommendation systems, skills-matching models and predictive models trained on historical career trajectories and employment outcomes.

For example, if a user is interested in transitioning from a low-paid service job to a role as a healthcare assistant, the platform could automatically generate a series of recommended actions. These might include completing a short certification in basic healthcare support, updating the user's CV to highlight relevant transferable skills, attending a local training programme, and applying for specific entry-level positions in the healthcare sector. As the user progresses, the system can update recommendations, remind them of upcoming tasks, and suggest additional steps if needed.

Such functionalities can be particularly beneficial for vulnerable jobseekers who may face difficulties in navigating complex administrative processes, identifying relevant opportunities, or maintaining motivation during the job search process. By breaking down career progression into smaller, achievable steps, the tool can help individuals stay engaged and maintain a sense of progress. Prompts that recognise the completion of these smaller steps are a nice way to sustain motivation, encourage users' engagement with the tool and keep them remaining focussed on their longer-term career objectives. Behavioural techniques could be used in this respect. For example, phrases such as "Great job completing your CV, that's an important step. Keep going!"

At the same time, these tools can also benefit individuals who are already employed but wish to improve their labour market situation and conditions. Workers in unstable, low-quality and precarious jobs may use this functionality to organise the steps needed to transition into more stable employment, which is particularly important given the limited amount of time they might have at their disposal. In this way, AI-supported career planning tools can contribute not only to labour market entry but also to longer-term career mobility and progression.

In the case of both Greece and Belgium where many MIS beneficiaries seem to move repeatedly between the scheme, unemployment and low-quality jobs, there is a clear need for more continuous and structured support. Career pathway recommendation systems that map step-by-step trajectories, combined with adaptive guidance that updates recommendations as users transition between different states and statuses, can help organise next steps in a structured way and ensure greater continuity in support.

AI can help identify hard-to-fill vacancies and predict emerging opportunities and employers' hiring patterns

Jobseekers and also counsellors often lack clear visibility into which vacancies are genuinely difficult to fill, future labour market needs and emerging opportunities or which employers are likely to hire in the near future. Without such insights and given that labour market changes occur in a rapidly and sometimes unexpected fashion, jobseekers' efforts may be misdirected or may focus on highly competitive roles with low chances of success. At the same time, employment services may not prioritise support where it is most needed.

AI can help by analysing labour market data to detect vacancies that remain open for long periods, require scarce skills, or repeatedly appear over time, all of which are strong indicators of hard-to-fill roles (like the tool deployed by the French PES that can identify such positions and subsequently help employers make them more appealing to jobseekers). For example, AI algorithms in this domain can i) predict the time it will take to fill a vacancy, and ii) calculate the attractiveness of a vacancy. This allows employer counsellors at the PES to reach out to employers to resolve any issues and to propose solutions to enhance the prospects of a vacancy (Brioscú et al., 2024^[1]).

AI can also use predictive analytics to anticipate future labour market needs by analysing long-term patterns and real-time signals. By analysing large volumes of labour market data, such as job postings, company growth indicators, industry reports, and economic trends, machine-learning models can highlight emerging occupations as well as rising job titles (e.g. the PES in Slovenia supplies information on past vacancy trends and current regional demand for specific occupations, providing a useful reference point for both jobseekers and policymakers). They can also track changes in demand for specific skills, alerting users to upcoming growth areas before they peak. This early visibility enables jobseekers to prepare in advance and supports PES in designing more relevant and effective programmes. For employers, these insights can strengthen workforce planning by signalling where skill shortages or recruitment challenges are likely to arise. AI can also identify employers or even whole specific sectors most likely to recruit new staff, particularly MIS beneficiaries and individuals from vulnerable categories – even before job vacancies are officially posted – by examining historical recruitment patterns, expansion signals, and company-level characteristics and trends (e.g. France, the Netherlands). These insights can enable jobseekers and counsellors to target employers with higher hiring likelihood. They can also help employers understand where they may face recruitment challenges and employer counsellors where to focus their outreach and support efforts.

5.4.2. The platform's functionalities should be able to work together through key workflows, transforming inputs into outputs

In addition to the platform's core functionalities (the so-called five pillars outlined above in Figure 5.4), it is essential to understand how these interact with each other through key flows. Figure 5.5 presents a simplified conceptual overview, illustrating the main inputs required for the operation of the matching and career recommendations platform, as well as the flows through which these inputs are transformed into key result outputs relying on the underlying algorithms.

At the core of the platform is a centralised matching algorithm that processes validated inputs from both the supply side (i.e. jobseekers and workers) and the demand side (i.e. employers) to generate immediate job-candidate optimal matches. Individual-level data such as personal information, demographic characteristics, skills, experience and others once verified, are fed into the system. At the same time, validated employer inputs also enter the system – these include business related information and, most importantly, vacancy data. Vacancy data may come from multiple sources, including existing platforms, as well as direct inputs on this platform. Over time, the platform can be progressively integrated with external databases such as LinkedIn to expand and enrich available vacancy data.

Based on this information, the platform generates tailored matching outputs in real time. For jobseekers, it identifies opportunities aligned with their profiles, preferences and aspirations. For employers, it recommends candidates who meet the specific requirements of the vacancies that they post. The matching results can inform all other pillars of the platform: skills identification (e.g. by revealing recurring skill gaps), vacancy management (e.g. by highlighting difficult-to-fill roles), and career recommendations (e.g. when an immediate match is not possible). The matching results can also feed in the original inputs through feedback loops for continuous improvement.

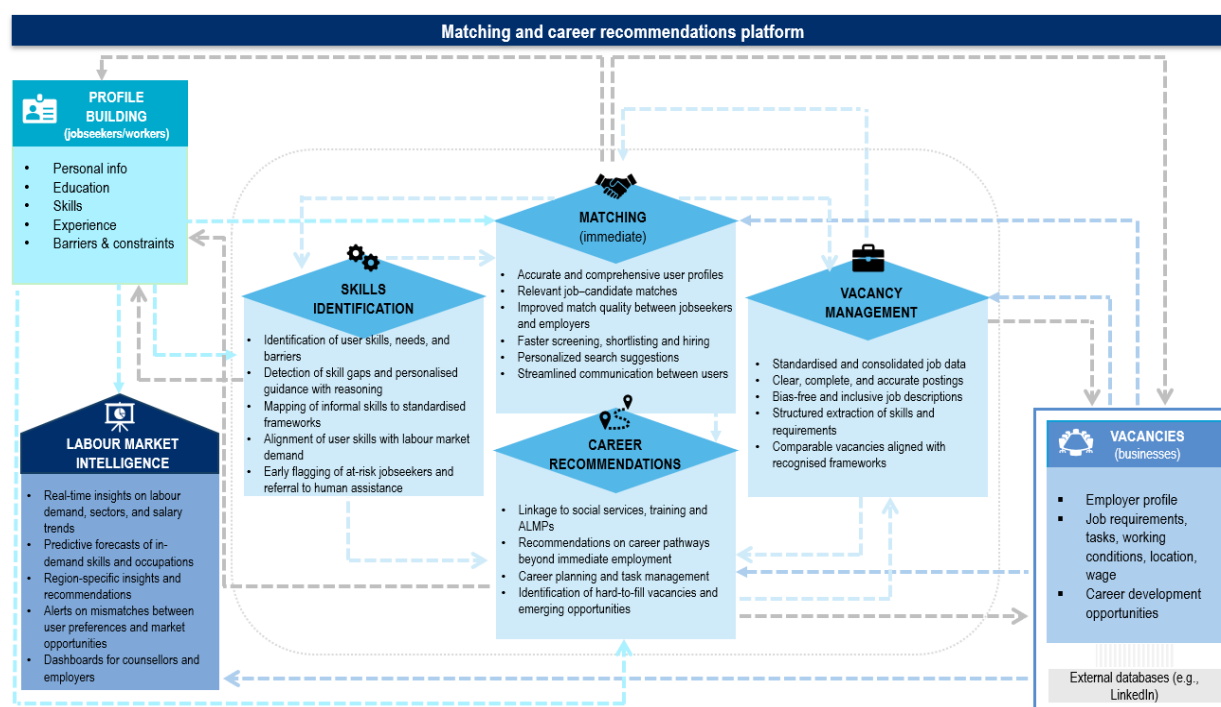
Individual-level information feeds directly into the skills identification pillar of functionalities. The underlying assessments provide evidence of each individual's strengths and weaknesses. The results flow into both matching and career recommendations. The rationale behind these flows is that more standardised and validated skill profiles, increase the accuracy and quality of immediate matching and support the generation of tailored career pathways. These results are then fed back into the user profile, enriching and updating it over time through a feedback loop.

The pillar that includes the vacancy management related functionalities processes information from the business side, hereby improving job postings. This structured vacancy information feeds directly into matching, ensuring that job requirements can be accurately compared with candidate profiles. It also

supports career recommendations, allowing the system to suggest opportunities and career pathways aligned with real job requirements.

Figure 5.5. Conceptual overview of the new matching and career recommendations platform

Simplified indicative conceptual overview outlining the key functions of the platform and their interconnections



The figure illustrates the five main functional pillars of the platform and the key flows through which inputs from individuals and employers are transformed into matching and career recommendation outputs (green, blue and orange arrows). Feedback loops across components ensure continuous refinement and improvement of the platform (grey arrows). Labour market intelligence operates as a cross-cutting layer that connects to all components, providing market insights while continuously learning from system outputs through bidirectional feedback flows. However, for clarity, not all interactions with this pillar are shown.

Source: Authors' elaboration.

The career recommendations pillar of functionalities can receive inputs from the labour demand and supply side as well as from all pillars (skills identification, vacancy management and matching). By analysing all the different inputs, it suggests realistic career pathways, training opportunities, and next steps. As users act upon these recommendations, their profiles evolve, feeding back into the system and further improving future matches and recommendations.

The final pillar of functionalities, the so-called labour market intelligence, serves as the cornerstone of this matching and career recommendations platform. It leverages both real-time and historical data, including job postings, user profiles, matching and other outcomes, as well as broader labour market data including at the national, regional and sectoral level. By processing this information, it generates insights on labour demand, emerging sectors and occupations, skills needs and salary trends. These insights ensure that the platform remains aligned with actual market conditions rather than relying on static or self-reported data. They also enable better, more forward-looking matching and career guidance decisions and sets realistic expectations. Insights can be differentiated and tailored depending on the users – whether jobseekers, employers, counsellors, social workers and training providers. This pillar can also inform evidence-based policymaking, as it enables better targeting, the design of more effective interventions and therefore more efficient resource allocation. These insights can be visualised through interactive dashboards and tailored

outputs, making them accessible and actionable for both policymakers and different types of end users. This final pillar interacts with all components of the platform through bidirectional flows. On the one hand, it informs each function while on the other it continuously learns from their own results outputs via feedback loops. For clarity and readability, not all flows related to labour market intelligence are depicted in the figure.

5.4.3. The new AI job matching and career recommendations platform should be able to interact with and support various users

A new AI-driven matching and career recommendations platform can generate substantial benefits to multiple user categories and types. In practical terms, these users may encompass all individuals and organisations that either engage directly with the platform or are influenced by its operation.

Potential users can be grouped into two primary categories, based on how they engage with the platform:

1. **Direct users**, who interact with the platform to achieve their own goals (e.g. jobseekers and employers).
2. **Indirect users**, who may not interact with the platform directly but are affected by or benefit from its operation (e.g. policymakers).

Within each category, the following breakdown provides deeper segmentation by user role.

Direct users:

- MIS beneficiaries: Individuals receiving the GMI (Greece) / RIS (Belgium) who access the platform to connect with job opportunities.
- Unemployed: Any unemployed individual who uses the platform to search for job opportunities, receive information or benefit from its different functionalities.
- Employees: Individuals currently employed who wish to explore new job opportunities, change employers, or advance in their careers by using the platform's features.
- Employers (and hiring managers): Company representatives posting vacancies, connecting to and reviewing candidates and benefiting from the platform's various functionalities. For typically larger firms, access may be granted to internal HR units/teams/specialists managing recruitment.
- Firms offering internships, apprenticeships and work-based learning opportunities: Representatives of companies who express interest and offer for internship, apprenticeship and work-based learning placements.
- Job counsellors: Professionals at DYPA (Greece) / Le Forem, VDAB, Actiris and ADG (Belgium) who support jobseekers by offering counselling, guidance, and personalised recommendations on available ALMPs.
- Employer counsellors: Professionals at DYPA (Greece) / Le Forem, VDAB, Actiris and ADG (Belgium) who engage with employers to understand their recruitment needs, secure positions for jobs and ALMPs, as well as to facilitate effective matches between candidates and vacancies.
- Social workers: Professionals in the Community Centres (Greece)/ CPAS/OCMW (Belgium) who support MIS beneficiaries and other vulnerable individuals on their path towards self-sufficiency.
- Training and certification providers: Organisations delivering training, reskilling and upskilling programmes, courses and certifications and use the platform to promote their programmes, connect with potential learners or understand labour market needs.

Indirect users:

- National Ministries responsible for social and employment policies: In Greece, this includes the Ministry of Social Cohesion and Family – responsible for policies related to social cohesion, family welfare, and

poverty reduction – and in particular the Directorate for the Fight Against Poverty, which oversees the management and supervision of the MIS. It also includes the Ministry of Labour and Social Security, which is responsible for employment policy, labour market regulation, social insurance, and social security policies. In Belgium, responsibilities are divided across federal and regional levels. At the federal level, social protection and labour regulation fall under: the Federal Public Service Social Security (FPS SS), responsible for social security benefits, disability, health insurance, and oversight of social-protection schemes; the SPP IS, responsible for the Minimum Income Scheme (RIS), social inclusion, and supervision of CPAS/OCMW and the FPS Employment, Labour and Social Dialogue, which regulates labour law, working conditions, and labour market governance. At the regional level, ministries supervise employment policy, training and activation services within their jurisdictions (Flanders, Wallonia, and Brussels).

- **Specialised policy and analytical units:** Such as Greece's Unit of Experts in Employment, Social Insurance, Welfare and Social Affairs (MEKY)¹¹ and the CBSS in Belgium. These groups support policy development, co-ordinate labour market diagnostics, and use platform insights to guide evidence-based decision making.
- **PES:** Covers DYPA in Greece and the regional PES in Belgium (VDAB, FOREM, Actiris and ADG). Multiple departments and units within the PES may benefit from the platform's insights and functionalities. These may include the central management team, strategic planning, employer services, training, vulnerable groups, data and analytics, finance and communications.
- **Heads of local employment offices:** Local directors of DYPA offices (KPAs and EKO) in Greece and regional/local PES branches in Belgium who are responsible for overseeing service delivery, staff co-ordination, and local operational strategies. They may rely on the platform's dashboards and reports to plan resources, monitor performance, and target services more effectively.
- **Local social-welfare institutions:** Heads of Community Centres in Greece and CPAS/OCMW in Belgium. These actors are responsible for co-ordinating social welfare services and implementing the MIS scheme at the local level.
- **IT developers/External contractors:** Technical teams and external service providers involved in maintaining, updating, integrating, or expanding the platform's digital infrastructure, ensuring functionality, security, and interoperability with other systems.
- **Evaluators:** Independent experts or institutional bodies responsible for assessing the effectiveness, impact, and quality of the platform, including its matching algorithms, user experience, and policy relevance. This could be done by analysing aggregated or anonymised information, without access to any personalised data (partial and controlled access granted by the platform's managing authorities).
- **Community Organisations / NGOs:** Civil-society groups supporting vulnerable populations, jobseekers, or MIS beneficiaries. They may use the platform's aggregated or anonymised data to guide their services and collaborate with the PES or social-welfare institutions (partial and controlled access granted by the platform's managing authorities).
- **Research Institutes/Researchers, analysts, and public-policy experts:** Experts who may use anonymised data, platform insights, and evaluation results to examine labour market trends, assess matching methodologies, or support evidence-based policymaking (partial and controlled access granted by the platform's managing authorities).

5.5. The strategic options for an AI-powered matching platform take into account the different context and situation in each country

This section discusses the proposed options for designing and implementing an AI-powered matching and career recommendations platform for MIS beneficiaries and potentially beyond this very specific target

group. As the situation in Greece and Belgium differs substantially, the options are analysed separately for each case.

5.5.1. Greece can either build an entirely new platform or extend an existing one

For developing a matching platform enriched with AI-enabled functionalities in Greece, two options can be considered, starting from the fact that a matching tool is already available at DYPA.

Option 1: Leverage the existing matching platform of DYPA

The first option is to extend DYPA's matching platform, currently operating within a testing environment. The starting point should be to examine whether upgrading the existing infrastructure is technically and operationally feasible before committing to a full rebuild. This would require a comprehensive feasibility and interoperability assessment to evaluate whether the current DYPA platform:

- Can technically support new AI modules and advanced features (described in detail under Section 5.4.1 of this report) such as advanced matching features, vacancy management related functions, counsellor and social workers dashboards, skills profiling, and labour market analytics.
- Can be securely integrated with public systems such as the MIS platform and other registries including DYPA's various databases, ERGANI as well as external platforms such as LinkedIn and support secure data flows across ministries and organisations.
- Has the necessary architecture for gradual scalability and can accommodate multi-agency, role-based access.
- Meets data governance and security requirements under GDPR regulations and the EU AI Act.¹²

Conducting this analysis first will help avoid redundant investments, duplicating systems, legal and compliance risks, the creation of tools that cannot be implemented or cannot be used effectively by frontline staff and overly long development times.

Should the assessment findings show that the DYPA platform can be adapted, upgrading it would likely be less costly, less disruptive, and consistent with current operations and processes. This means the existing platform will be enhanced and expanded with additional AI functionalities and integrated with multiple data sources, eventually operating as the single unified national matching platform for all users.¹³

Option 2: Build a new platform from scratch

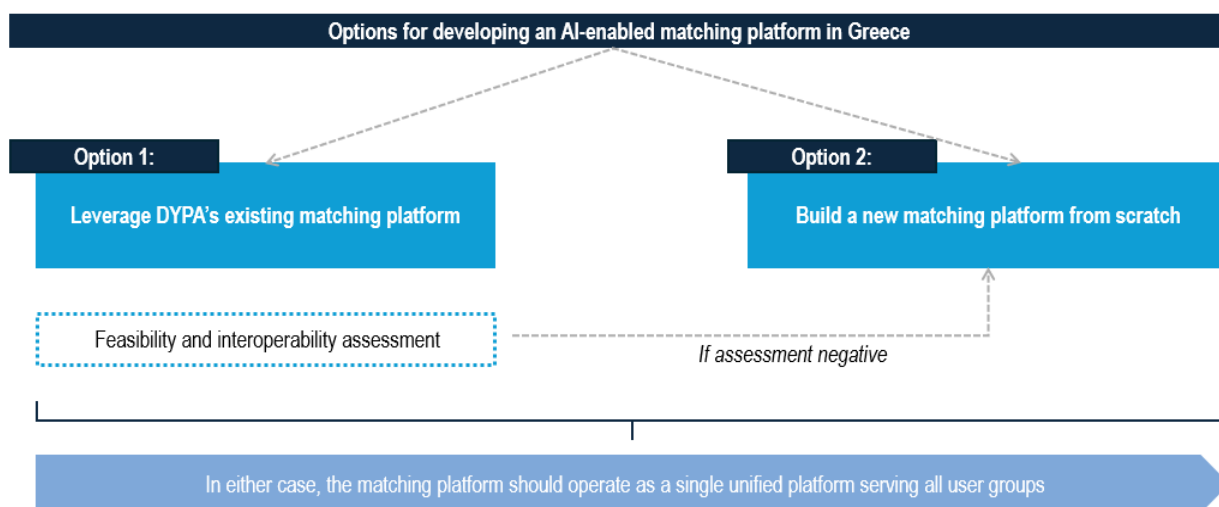
If the feasibility study shows that the necessary upgrades cannot support the country's strategic needs for matching MIS beneficiaries and other vulnerable groups, then developing a completely new platform becomes the appropriate alternative. If constraints, including funding, capacity, institutional co-ordination and time pressure, make it unrealistic to incorporate all functionalities from the outset, then a prioritisation exercise will be necessary to guide gradual development and the addition of new features. This approach allows Greece to progress depending on technical feasibility and available resources, while ensuring that essential functionalities are in place from the beginning.

If this option is chosen, at the long-term, it would not be efficient to maintain two separate systems, namely the existing DYPA platform and a new one for MIS beneficiaries and vulnerable groups. The new platform should eventually replace the existing DYPA system and operate as a single unified national matching platform serving all direct user groups, including MIS beneficiaries and vulnerable jobseekers, the unemployed individuals in general, employees, employers, as well as job and employer counsellors and social workers.

Figure 5.6 presents the two options at a high level, starting from the premise that a matching tool is already in place.

Figure 5.6. Two strategic options for developing an AI-enabled matching platform in Greece

The figure outlines two strategic options for developing an AI-enabled matching platform in Greece. The first option is to build on DYPA's existing platform, provided that a feasibility and interoperability assessment confirms it can support the required upgrades. If the assessment is negative, the strategy shifts to Option 2, namely developing a new platform from scratch



Note: In cases where funding or capacity constraints prevent the development of a new platform, selected functionalities can be prioritised.
Source: Authors' elaboration.

A summary presenting the two main options is included in Table 5.1.

Table 5.1. Summary table presenting the key elements of the two main options for Greece

The development of an AI-enabled matching platform can follow two main options/scenarios.

Aspect	Option 1: Upgrade the existing DYPA platform	Option 2: Build a new national platform from scratch
Main concept	Extend and modernise the current DYPA matching platform by adding new AI functionalities	Develop a completely new matching platform designed from scratch to be AI-ready and for multi-agency and multi-user use
Governance model	Existing institutional arrangements can be maintained and enhanced as needed	Full design of governance and operations – new platform would require establishing new institutional processes for ownership, operations, and data governance
Technical structure	Build on the current system's architecture, adding modular components	Entirely new architecture, modern standards, full integration with MIS, DYPA and other registries, and future services from the start
Interoperability	Achieved through targeted system upgrades combined with the creation of new interfaces (e.g. APIs, web services, and data-exchange modules) depending on what is technically feasible	Designed for interoperability and multi-agency data flows
User experience	Minimal disruption for jobseekers, employers, and job counsellors as interface is familiar with improved capabilities	New interface for all users, onboarding and training required
Pros	Lower cost Faster delivery Builds on existing DYPA investment Less disruption for frontline operations Easier adoption by staff and employers	Large flexibility in system design Can embed diverse AI algorithms from the start Modern architecture supports long-term scalability Potential to unify previously fragmented services

Aspect	Option 1: Upgrade the existing DYPA platform	Option 2: Build a new national platform from scratch
Cons	Dependent on feasibility assessment and its findings Integration with additional registries may be complex Gradual, modular additions may not be fully supported	High development cost Long design and development timeline Requires setting up connections to all existing registers and configuring the platform to receive and process data from them Duplicate systems during transition until/unless DYPA platform is phased out Higher risk of cost overruns or delays
Feasibility	Moderate to high, depending on results of technical feasibility and interoperability assessment	Moderate to high, large investment and strong inter-ministerial co-ordination required
Overall implementation risks	Medium	High

Note: The first option is to upgrade DYPA's existing system, provided a feasibility and interoperability assessment confirms it can support new AI functionalities and integrate with MIS and other registries. If the assessment indicates that such upgrades are not viable, the alternative is to develop a new platform from scratch, which would then replace the existing DYPA system and serve as a unified national platform for all users. Source: Authors' elaboration.

5.5.2. Belgium can consider developing a new unified matching platform or opt for a federally co-ordinated umbrella platform connecting the existing regional platforms

Belgium's labour market governance is highly decentralised. Each region already operates its own PES and digital tools, with VDAB being the most advanced in terms of digital innovation. Forem, Actiris and ADG (to a lesser extent) also maintain mature digital systems. The organisational implications for CPAS are extremely important, as far as the human and operational impacts are concerned. From a "technical" point of view, the first steps should be strengthening the digital maturity and integration of CPAS, as well as improving the quality and standardisation of CPAS data.

Given this institutional setup and the strong regional digital capabilities already in place (particularly in Flanders), the following two options can be considered:

Option 1: A new single unified national matching platform

This option would involve creating a new unified matching platform used across all regions and public services. Such a system would provide a single-entry point for MIS beneficiaries and potentially later on for all jobseekers and employees, as well as for employers, eliminating the existing fragmentation across the different already existing platforms.

A new platform developed from scratch could:

- Replace regional matching systems with one platform for the entire country.
- Provide a unified interface for jobseekers and employers and unify all vacancy data and candidate profiles.
- Integrate RIS, social inclusion and activation pathways through federal mechanisms.
- Establish one national labour market database and a single governance structure.

This approach offers several advantages – at least at the theoretical level. It would enable full harmonisation of matching services across the country and support the creation of a coherent national labour market intelligence ecosystem. A single platform would also provide one access point for all jobseekers and employers, simplifying the user experience, and would make national monitoring and evaluation more straightforward.

However, there are substantial challenges associated with this option. Employment competences lie with the regions, imposing both legal and political constraints on full centralisation. Moreover, regional PES

already operate advanced systems. Developing a new national platform would entail significant investment, complex co-ordination, and long development timelines. Furthermore, during the transition period, it might duplicate existing systems, and adoption could be lower if regional platforms remain more advanced or more trusted by the end users.

Overall, while theoretically attractive, a fully centralised national platform built from scratch would require substantial political agreement, structural change, available funds and a proven feasibility case, making it a considerably challenging option under Belgium's current institutional framework.

Option 2: A federally co-ordinated matching platform integrating regional systems

Building a new platform from scratch at the federal level would likely be disproportionate, costly, and duplicative. A rather more viable path is creating an umbrella platform that integrates the existing regional platforms through a federally co-ordinated interoperability layer, shared standards and common AI components, but only to the extent that the regions collectively agree to these elements, and while allowing regions to retain full autonomy over their operations and service delivery. In practical terms, this means that each region will keep its own digital platform. These systems, however, will be connected to an umbrella platform of the federal level, provided that the regions explicitly consent to such a connection. Jobseekers and employers would continue to use their regional PES interface, but the systems would “talk to each other” behind the scenes. Under this option, the federal level would support:

- Common rules, data, interoperability and metadata standards, agreed upon by all regions.
- Shared AI building blocks (e.g. skills taxonomy, matching logic, etc.) developed jointly and used only with regional approval.
- A harmonised framework for AI ethics and compliance with the EU AI Act, co-created with and validated by the regional authorities.
- A unified access layer for MIS beneficiaries or inter-regional mobility programmes, implemented only where the regions endorse such arrangements.
- A joint governance structure involving the federal authorities and the regional PES and social services, with regions maintaining all existing responsibilities and their decision-making power.

A technical assessment would first need to confirm that the existing regional systems can be indeed connected through common standards, APIs, and data-exchange mechanisms without disrupting current operations and services. It would also assess whether the existing platforms can support the required upgrades in performance, data quality, and interoperability.

This approach offers several advantages. It builds on the strong digital infrastructures already in place – thereby avoiding unnecessary duplication – while fully respecting regional competences, established practices, and autonomy. By linking systems rather than replacing them, it also improves the consistency of labour market data at the national level and strengthens inter-regional mobility, which today remains limited. Because it relies on existing infrastructure, this option would involve lower implementation and maintenance costs and could be deployed more quickly.

At the same time, the approach comes with certain challenges. It would require voluntary political agreement among the regions on data governance and common technical standards, as well as close co-ordination across the separate regional platforms. Significant and sustained co-ordination and oversight would also be required to ensure consistent application of AI ethics and compliance with GDPR regulations and the EU AI Act across all regions, based on mechanisms jointly approved by the regional authorities.¹⁴

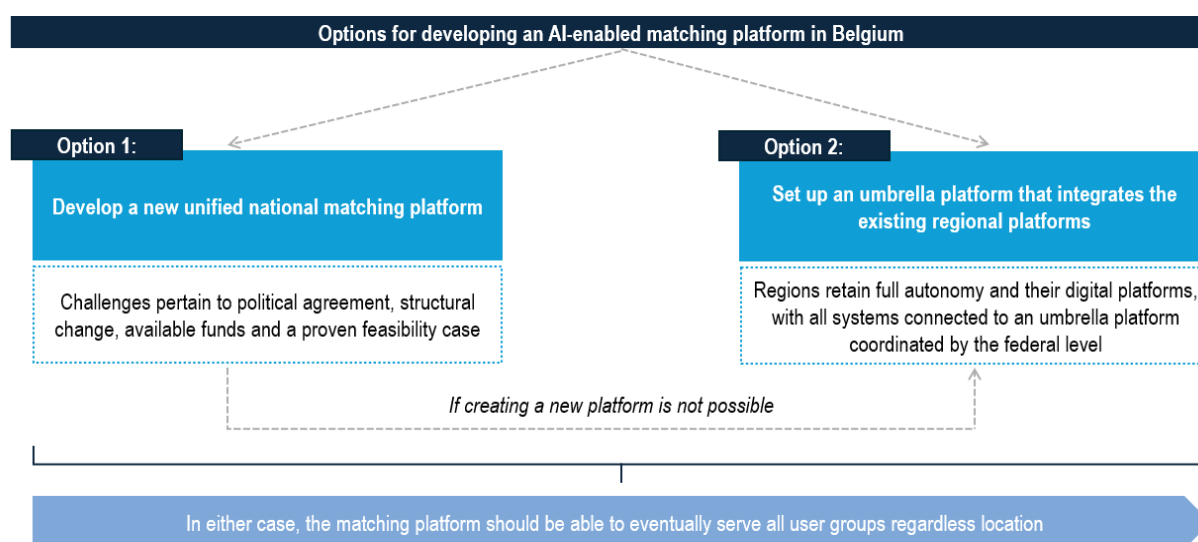
Considering Belgium's institutional structure and the advanced digital capacities already in place, an interoperable platform co-ordinated at the federal level, subject to regional approval and without modifying regional responsibilities, seems to be the most realistic and efficient option to pursue. Such a model would

allow Belgium to build on the strengths of existing regional systems while ensuring that key functionalities are aligned and compatible across the country, only where the regions choose to collaborate.

Figure 5.7 presents the aforementioned two options at a high level.

Figure 5.7. Two strategic options for developing an AI-enabled matching platform in Belgium

The figure outlines two strategic options for developing an AI-enabled matching platform in Belgium. The first option is to build a new unified matching platform from scratch, only if the regions collectively endorse this approach. If this option proves not viable, the strategy shifts to Option 2. This includes retaining the existing regional platforms and connect them through a federally co-ordinated interoperability layer, provided that the regions agree, and a technical assessment confirms that such integration is feasible



Note: In cases where funding or capacity constraints prevent the full development of a new platform, selected functionalities can be prioritised.
Source: Authors' elaboration.

A summary presenting these two options/scenarios is included in Table 5.2.

Table 5.2. Summary table presenting the key elements of the two main options for Belgium

The development of an AI-enabled matching platform can follow two main options/scenarios

Aspect	Option 1: Build a new unified national platform from scratch	Option 2: Set up an umbrella federal platform that connects the regional systems
Main concept	Replace all regional platforms with one unified matching system used by all institutions, including PES and social services	Maintain the regional PES platforms as such, and create a federal interoperability layer that connects them through shared standards and AI modules
Governance model	Federal level owns, manages, and operates the entire system	Regions retain full autonomy over processes, service delivery and tools Federal level sets the interoperability standards
Technical structure	One central and common IT system replacing regional infrastructures	Decentralised IT systems connected by common data standards, APIs, and shared AI components
Interoperability	Designed with such features from the beginning	Possible due to advanced existing systems, to be confirmed following technical assessment

Aspect	Option 1: Build a new unified national platform from scratch	Option 2: Set up an umbrella federal platform that connects the regional systems
User experience	One new single interface for all jobseekers, employers, and social-service users nationwide, training required	Users continue to access regional PES platforms, but can view information from all regions
Pros	Fully harmonised national service Single platform for the entire labour market of the country Standardised AI-driven matching for all users Easier national monitoring and reporting	Full regional autonomy respected and maintained Sound regional digital systems are retained and used Avoids duplication and reduces cost Improves national data consistency Enhances inter-regional mobility Faster development times
Cons	Very complicated from political perspective due to the institutional setup Replacement of mature systems, already trusted by users Long implementation period Requires large investment Loss of regional flexibility and some level of autonomy Duplication during transition	Requires strong co-ordination across regions and the federal level Needs agreement on shared data standards Must align AI governance and ethics across all PES
Feasibility	Low – not well aligned with Belgium's institutional structure	High – aligns with federal/regional roles and existing digital maturity
Overall implementation risk	Very high	Medium

Note: The first option is to develop a new unified platform at the federal level only if the regions collectively endorse this approach. The second option is to maintain the existing regional platforms and connect them an umbrella platform of the federal level, provided that the regions explicitly consent to such a connection, and a technical assessment confirms that such integration is feasible.

Source: Authors' elaboration.

5.6. Well-defined institutional frameworks and responsibilities are required to ensure that AI matching platforms operate as intended

Well defined governance structures are essential to ensure that AI-powered matching platforms operate securely, transparently, and in alignment with national (and regional in the case of Belgium) labour market policies. The respective governance models clarify who owns the system, who manages and administers it, who has access, and how responsibilities are divided across the different institutions involved.

5.6.1. The proposed governance model in Greece involves joint ownership across three agencies

Given the platform's importance for MIS beneficiaries and other vulnerable groups, and its role in linking the MIS with activation policies and labour market integration through its third pillar, joint ownership between the Ministry of Social Cohesion and Family and the Ministry of Labour and Social Security and its implementation arm – DYPA – appears to be a well-aligned and suitable governance option. Table 5.3 presents the proposed governance model.

Table 5.3. Proposed governance model for a comprehensive matching tool in Greece

The proposed governance model outlines a co-ordinated framework in which strategic leadership, operational management, IT development, data protection, scientific oversight and local implementation are clearly distributed across the competent ministries, DYPA and supporting institutions to ensure an effective, secure and inclusive platform for MIS beneficiaries and other vulnerable jobseekers

Function / role	Responsible body	Key responsibilities (indicative)
Strategic governance	Ministry of Social Cohesion & Family, Ministry of Labour & Social Security and DYPA	Overall ownership of the platform, policy direction, alignment with employment, activation and MIS objectives, compliance with national and EU frameworks, prioritisation of vulnerable groups, strategic prioritisation of vulnerable groups and MIS beneficiaries
Operational host	DYPA	Day-to-day administration of the platform, managing user access, ensuring integration with PES systems, operational monitoring, support to counsellors and frontline staff
IT development and maintenance	External contractor(s) selected through public procurement; oversight by DYPA	Development of the platform, creation of underlying AI functionalities, maintenance, updates, bug fixes, scalability improvements, supporting documentation, training
Data governance and GDPR oversight	Ministry of Social Cohesion and Family, Ministry of Labour & Social Security and DYPA (co-controllers/processors) – DPOs	Defining data-access rules, ensuring GDPR compliance, managing data-sharing agreements, monitoring data quality and security, overseeing lawful use of AI models and personal data
Scientific oversight	MEKY	Validation of AI methodologies, bias, fairness and impact assessments, labour market intelligence integration, recommendations for algorithmic improvements, analytical reporting for policymakers
Local-level implementation and user support	Local KPAs and EKO offices, Community Centres and municipalities	Promoting platform to users, assisting with platform use, provide feedback for system improvements, facilitating referrals, provide tailored and more intensive support to those who need it
Governance board	Cross-institutional with representatives from: Ministry of Social Cohesion & Family, Ministry of Labour & Social Security, DYPA, MEKY, and other relevant stakeholders as needed	Steering strategic decisions, reviewing performance, ensuring inclusion of vulnerable groups, approving major AI model changes, supervising ethical and legal compliance, and overseeing cross-agency co-ordination

Source: Authors' elaboration.

5.6.2. A shared governance model aligns with Belgium's decentralised system, balancing a key role for federal agencies with the autonomy of regional actors

Given the decentralised nature of Belgium's social assistance and employment system and the key role that both federal and regional actors play in supporting MIS beneficiaries, a shared governance model is well aligned with the country's institutional reality. At federal level, SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue are well placed to oversee the interoperability layer, co-ordinate shared rules and common AI components. At the same time, all regional PES retain their full autonomy and responsibility for service delivery and for operating their own digital platforms.

The recommendation for a federal interoperability layer requires a clear legal framework stipulating which actors collect, modify, use and supervise data and who bears responsibility for automated decisions, particularly under the AI Act (high-risk systems).

Table 5.4 presents the proposed governance model. That model corresponds to Option 2 described in the previous section.

Table 5.4. Proposal for the governance model for a comprehensive matching tool in Belgium

The proposed governance model reflects Belgium's institutional structure and offers a coherent approach for developing a platform that serves MIS beneficiaries effectively while respecting regional competencies

Function / role	Responsible body	Key responsibilities (indicative)
Strategic governance	Regional Public Employment Services (VDAB, Forem, Actiris, ADG), SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue	Setting the overall vision ensuring the platform supports MIS objectives and regional employment strategies co-ordinating between federal and regional levels ensuring compliance with national and EU frameworks agreeing on standards for interoperability
Operational host	Regional PES	Operating their existing regional matching platforms integrating federal interoperability features managing user access supporting counsellors maintaining responsibility for service delivery models and regional processes
Federal interoperability layer	SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue	Developing and maintaining the shared interoperability layer setting and enforcing common data standards and exchange protocols ensuring secure data flows across CPAS/OCMW and regional PES co-ordinating shared AI modules where appropriate (e.g. vacancy classification, skills taxonomies)
IT development and maintenance	External contractor(s), supervised by SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue and regional PES (depending on layer)	Federal layer: development of interoperability components, shared data standards, and common AI modules Regional layer: upgrades to regional platforms to integrate with federal standards ongoing maintenance of PES systems documentation and training for staff
Data governance and GDPR oversight	SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue (federal), Regional PES, CPAS/OCMW, CBSS relevant DPOs	Defining shared data-governance rules ensuring GDPR compliance across all layers overseeing data-sharing agreements monitoring lawful AI use ensuring secure cross-level interoperability through CBSS
Scientific oversight	Regional PES research units, CBSS	Validating AI models used in both federal and regional layers conducting fairness and bias assessments monitoring performance of shared AI modules ensuring ethical use of data producing evidence for policymakers
Local level implementation and user support	Regional PES (counsellors), CPAS/OCMW across municipalities (social workers)	Supporting MIS beneficiaries in using the platform entering and validating information providing tailored support offering feedback to improve usability helping users navigate both federal and regional features
Governance board	Representatives from SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue, regional PES, CPAS/OCMW, CBSS, ONEM/RVA, associations, ethics bodies	Steering strategic decisions co-ordinating across all levels reviewing system performance approving major changes to interoperability standards or shared AI components ensuring the inclusion of vulnerable groups overseeing legal and ethical compliance

Source: Authors' elaboration.

5.7. A standalone career recommendation tool would be the second-best alternative, where a comprehensive matching platform is not feasible

Under this second-best scenario, the career development component would operate as an independent digital tool enhanced by AI, designed specifically to support career guidance, skills development, and informed career decision making. This approach would allow users to benefit from personalised career insights, training recommendations, and labour market intelligence even in the absence of a fully integrated matching platform.

Given that no similar tools currently exist for MIS beneficiaries in either country, this solution would need to build on emerging digital functionalities while requiring substantial further development and integration. This implies designing the underlying architecture, defining the relevant data sources, and ensuring

interoperability with existing systems. Particular attention would also need to be paid to how the tool interacts with existing job matching and skills identification systems, so that career recommendations and labour market insights remain consistent with available employment opportunities.

This section explores this alternative scenario and outlines specific considerations for Greece and Belgium. Similarly to the case of a comprehensive matching platform, a standalone tool can be developed incrementally, starting with core functionalities and expanding over time through modular add-ons, conditional on several factors.

5.7.1. Greece can build a comprehensive career recommendation tool or embed it in DYPA's existing matching platform

While Greece does not currently have a comprehensive career recommendation tool of the type envisaged here, relevant functionalities have started to emerge. To make the best possible use, this new tool should be able to interact with multiple systems such as DYPA's systems, the MIS registry, employment and social security registries and even training providers' systems or formal education system even if it operates as a separate digital environment. The development of such a tool would involve designing the technical architecture, defining the relevant data sources, and ensuring that the platform can access and process information in a structured and secure manner. Particular attention would also need to be given to governance arrangements, including defining the institutional responsibilities for the ownership, operation, and data management of the platform. Users should be able to access a separate environment that provides guidance, training pathways, and labour market insights.

The development of a comprehensive career recommendation tool would offer several advantages. On the positive side, building such a platform would allow for greater flexibility in terms of design. A dedicated architecture could be developed specifically for career guidance and progression functionalities, allowing these features to be fully integrated from the outset rather than being added to an existing system. It would also ensure connections with multiple sources, enabling a more integrated approach to career support. In addition, a newly designed system could rely on modern technological standards and scalable architecture, making it easier to expand functionalities over time and adapt to future needs or technological developments.

However, this approach wouldn't come without challenges. Developing a comprehensive platform would require significant financial investment and a longer design and implementation timeline. It would also require co-ordination across multiple institutions. In addition, users might need to navigate several different digital environments, as the career recommendation tool would operate separately from existing job matching systems.

An alternative approach would be to integrate the career development functionalities into the existing DYPA matching platform, provided that this is technically feasible. Such integration would allow users and counsellors to access both job matching and career development services within a single digital environment. This option corresponds to the first option discussed earlier, which proposed leveraging the existing DYPA matching platform following a dedicated feasibility and interoperability assessment. Conducting such an analysis at an early stage can help avoid redundant investments, the duplication of systems, legal or compliance risks, the development of tools that cannot be effectively used by frontline staff, or excessively long implementation timelines. If the assessment shows that the DYPA platform can be adapted to support these functionalities, upgrading the existing system would likely represent the most practical option. In this case, the platform could be gradually enhanced with additional AI-based functionalities and connected to multiple data sources, eventually evolving into a unified national platform supporting both job matching and career development services.

If constraints such as funding limitations, institutional capacity, co-ordination challenges or time pressures make it unrealistic to incorporate all functionalities at once, a prioritisation exercise would be necessary to

guide gradual development. This would allow Greece to introduce the most essential functionalities first and progressively add new features as technical feasibility and available resources allow.

Given the platform's importance for MIS beneficiaries and other vulnerable groups, and its role in linking the MIS with activation policies and labour market integration through its third pillar, joint ownership between the Ministry of Social Cohesion and Family and the Ministry of Labour and Social Security and its implementation arm – DYPA – appears to be a well-aligned and suitable governance option. The proposed governance model would be the same with the one explained earlier (Table 5.3), while it would apply regardless of whether the career development functionalities are implemented as part of the DYPA's existing matching platform or developed as a standalone tool hosted within DYPA.

5.7.2. Belgium can consider developing regional career recommendation tools which should ideally be co-ordinated at the federal level

Given Belgium's highly decentralised system, in an ideal scenario, the development of digital career recommendation tools could take place within a broader umbrella platform that connects existing regional systems through a federally co-ordinated interoperability layer. In practice, this would mean that the regional PES would continue to operate their own platforms, while the interoperability layer would allow information to be exchanged across systems.

If this is not feasible, an alternative and more pragmatic solution would be to develop career recommendation tools at the regional level within each PES. In this scenario, each regional PES would integrate career development functionalities within its existing digital platforms and services. The key idea is that the career recommendation tools would be developed at regional level, but designed to interoperate with each other where necessary, rather than being managed through a single central platform (which would be considerably challenging under Belgium's current institutional framework). The key enabling factor would be early agreement on common technical standards for data exchange and interoperability rules to ensure that the different tools remain compatible and capable of exchanging information when needed.

Under such an approach, each region would maintain full autonomy and control over its platform, operations and service delivery, jobseekers and employers would continue to use their regional PES interface, but the career recommendation tools would be able to "talk to each other" behind the scenes through agreed interoperability mechanisms. This interoperability could be limited to specific types of information related to the career development functionalities, rather than encompassing all data held by each PES. Such an approach would allow systems to exchange relevant information while fully respecting regional governance arrangements and institutional responsibilities. For example, the types of information that could reasonably be shared across PES systems include educational and training opportunities, short courses, vacancy data and broader labour market insights. At the same time, information related to ALMPs would remain within each PES. This is because access to and participation in such programmes are typically managed at the regional level and are linked to individuals registered with the respective PES. The required interoperability standards could be defined at the federal level in close co-ordination with, and with the agreement of, all regions.

Such an interoperable system could be beneficial to users who may wish to move across regions or explore opportunities outside their area. Career recommendations and skills profiles could remain usable across systems, helping individuals navigate labour market opportunities more effectively regardless of the region and the PES in which they are registered.

This approach offers several advantages. First, it is well aligned with Belgium's decentralised governance structure, allowing regions to retain full control over their employment services and digital platforms. Each PES can design and implement career development functionalities that reflect regional labour market conditions, institutional priorities and its existing digital systems. This approach also builds on the strong

existing digital capabilities, avoiding the need to replace or duplicate existing systems. In addition, interoperability between the regional tools would allow certain types of information to be shared across systems, enabling users to benefit from broader labour market intelligence and potentially explore opportunities beyond their region. Another advantage of this approach is that it reduces the political and institutional complexity associated with creating a single national career recommendation platform. Rather than requiring a comprehensive redesign of governance arrangements, regions can develop their own tools while agreeing on a limited set of common standards that allow them to communicate. This allows flexibility in implementation, as regions can adopt new functionalities at their own pace depending on available resources, technical capacity and policy priorities.

At the same time, this approach also presents certain challenges. Ensuring interoperability between multiple regional systems requires early agreement on certain issues such as common technical standards, data formats and exchange protocols. Without such co-ordination, there is a risk that the different tools evolve in ways that make future interoperability more difficult and complicated. Another limitation is that users may still experience some level of fragmentation if the different systems are not sufficiently aligned in terms of design, functionalities or user experience. While interoperability can allow systems to exchange certain information, it does not fully eliminate differences between regional platforms. As a result, individuals moving between regions or exploring opportunities outside their region may still need to connect and interact with multiple systems.

The proposed governance model would be the same with the one explained earlier (Table 5.4). Given the decentralised nature of Belgium's social assistance and employment system and the key role that both federal and regional actors play in supporting MIS beneficiaries, a shared governance model is well aligned with the country's institutional reality. At federal level, SPP IS, FPS SS, FPS Employment, Labour and Social Dialogue are well placed to oversee the interoperability layer, co-ordinate shared rules and common AI components. At the same time, all regional PES retain their full autonomy and responsibility for developing and operating the new career recommendation tools as well as service delivery.

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Notes

¹ The proposed concept recommending long-term career pathways including ALMP support draws on previous project activities and outputs. These include the fact-finding meetings in both countries, the identification of promising data that could potentially be used to develop digital solutions matching MIS beneficiaries with labour demand and recommending career pathways, the findings of the data analysis on MIS beneficiaries and employers in both countries as well as analysis of long-term career pathways of MIS beneficiaries, including the role of key ALMPs to facilitate their career progression. It is also informed by the experience of existing tools in EU and OECD countries. Some of these were presented during the two international knowledge-sharing workshops held in [May](#) and [November](#) 2025, as well as during the study visit in Sweden in February 2026 and its corresponding note. Additional examples have been provided, in the note which summarised lessons learnt on matching MIS beneficiaries to labour demand and recommending career pathways.

² The detailed technical and functional specifications of the matching tool fall beyond the scope of this project and this specific chapter.

³ This chapter focusses on job-matching platforms used by governments and public agencies. It does not cover private-sector platforms or online marketplaces that connect freelance workers with clients, such as those operating in the gig economy.

⁴ A detailed description of good practices on job matching and career recommendations tools is included in a dedicated report produced under this project and can be accessed on the [project's webpage](#) (Output 3).

⁵ A detailed table with all the functionalities of the AI-powered matching and career recommendation platform has been developed as part of the project and can be accessed on the [project webpage](#). The functionalities are organised by pillar and classified by their priority level (as essential, optional, or nice-to-have). For each functionality, a brief description and its intended purpose are also provided.

⁶ The processing of health-related data is subject to strict conditions under the GDPR and requires appropriate legal bases, safeguards, and, where applicable, explicit consent.

⁷ *Berufsinfomat* has been subject to criticism for producing socio-economic biases and hallucinating information (Köver, 2024^[8]). AMS tries to mitigate these impacts through making clear the tool is not a replacement for personal appointments with counsellors, and the bot itself directs users towards in-person services.

⁸ Recommendations may also extend beyond immediate job placement to include ALMPs, relevant training and courses to address skills gaps and improve employability, as well as sustainable employment opportunities. These broader aspects, are examined in detail in Chapter 6 which discusses digital solutions enhanced by AI to recommend career pathways for MIS beneficiaries, including ALMP support.

⁹ Early warning systems are data-driven tools designed to identify individuals who may be at risk of experiencing negative outcomes and hence require timely and targeted interventions. In education, EWS are often used to flag students who may be at risk of dropping out from school based on indicators such as attendance, grades, or behaviour. In PES, similar systems help identify jobseekers who are likely to

become long-term unemployed by analysing factors such as work history, skills, age, benefit duration, or engagement patterns.

¹⁰ In Greece, the establishment of an individual learning accounts system is foreseen by Law 4921/2022; however, the system is not yet fully operational. Belgium has recently experimented with such a system, but it was eventually abolished in January 2026.

¹¹ A specialised scientific and advisory unit operating under the remit of the Greek Ministry of Labour and Social Security providing scientific support and policy formulation in the fields of employment, social insurance, welfare and social affairs. It also supervises and co-ordinates the Labour Market Diagnostic Mechanism (MDAAE), an online labour market monitoring tool that combines big data analysis with job demand and skills data offering solutions for more effective employment services and labour market policies.

¹² A brief reference to the legal considerations for making relevant data available for digital matching and career recommendations solutions is included in Chapter 6.

¹³ Key considerations regarding the data sources and the data required for the operation of the matching and career recommendations platform is included in Chapter 6.

¹⁴ A brief reference to the legal considerations for making relevant data available for digital matching and career recommendations solutions is included in Chapter 6.

6 Implementing AI-enabled matching tools requires more than technology alone

This chapter intends to connect the design of the proposed AI-enabled job matching and career recommendation platform discussed under the previous chapter to the practical steps needed for its implementation. It highlights key complementary considerations that underpin the successful adoption of these tools, including organisational and data requirements, pilot testing and monitoring mechanisms, as well as the principal constraints, risks, and challenges arising from the deployment of advanced AI functionalities. These issues are particularly important because eventually the effectiveness of AI-driven matching and career recommendations solutions depends not only on the actual design of the tools themselves, but also on the quality of the underlying data, the supporting infrastructure, as well as their successful integration into the wider ecosystem of employment and social services.

6.1. Introduction

Having discussed the proposed concepts and governance options for the AI-enabled job matching and career recommendation platform in the previous chapter, this chapter focusses on implementation considerations. The successful deployment of such tools requires not only appropriate governance arrangements but also careful planning to address technical, organisational, legal, and operational challenges.

The chapter is organised as follows. It first outlines an indicative implementation roadmap for the proposed job matching and career recommendation platform. It then outlines the main constraints, risks, and challenges associated with deploying advanced AI functionalities and discusses the importance of responsible, human-centred design to ensure that the platform meets user needs and supports rather than replaces, human judgement. The chapter also explores options for piloting the platform and emphasises the need for ongoing monitoring and evaluation to ensure its continuous finetuning as well as complementary policy actions related to organisational readiness, institutional co-ordination, long-term financial sustainability, availability of good jobs and ALMPs that could strengthen even further the impact of digital tools on MIS beneficiaries' employment outcomes.

The effectiveness of these tools depends heavily on access to high-quality data and the infrastructure needed to support secure data sharing across different institutions in both countries. Drawing on the data sources, as these have been discussed in Chapter 2, this chapter concludes by providing recommendations on the data that could support the proposed tools in Greece and Belgium and briefly discusses key legal considerations governing the use and sharing of these data.

6.2. The implementation of the job matching and career recommendations platform should follow a phased approach that clarifies what needs to be done at each stage

Table 6.1 presents an indicative implementation plan for the job matching and career recommendations platform discussed under the previous chapter. The plan is organised by phase and outlines the key objectives of each phase, an indicative set of main actions, and estimated human and financial resource needs. Resource requirements are expressed in broad categories (low, medium, high) to give a general indication of the effort required at each phase. It is important to note that the resources related to digitalisation refer to the upfront investment required from the managing authorities during the platform's development and rollout. Over time, the relevant investments are expected to generate efficiency gains and reduce costs. Only the financial costs of external IT service providers who will be likely contracted for the actual development of the tool are taken into consideration in the estimates below. As far as human resource needs are concerned, these refer to the staff time required within the organisations involved.

Table 6.1. Indicative plan for the implementation of the matching platform

Phase	Objectives	Key actions (indicative)	Human resources	Financial needs
Planning	Define the vision, scope, requirements, governance, and foundational conditions for successful development	Situate the platform within the countries and managing authorities broader digitalisation strategies and related plans Define objectives, intended users, main target group and expected outcomes. Although the tool will be in principle designed with the needs of MIS beneficiaries in mind, it could potentially also be used by jobseekers in general as well as by employees (some functionalities) or could be extended to support everyone at a later stage Map stakeholders who will be interacting with the tool and engage them early. As an initial step conduct needs assessment with (at least) MIS beneficiaries, and employers Assess all proposed options and conduct feasibility study to decide on the best and feasible option to proceed Define the technical and operational design of the platform, identify data sources, data requirements and potential gaps Define security requirements, agree on governance structure and data governance Situate the tool within existing processes Set timeline, resources, and key success indicators and initial targets Prepare technical and functional specifications and proceed with tendering/procurement	Medium	Medium - high
Development	Build the actual platform: technical components, functionalities, user interfaces	Develop core modules / functionalities of the platform (e.g. recommendation engine, skills extraction, vacancy classification) Integrate external systems Build different profiles and interfaces for the different users and matching logic Test accessibility standards and inclusive design Carry out internal testing (functionality testing, data quality and consistency checks, matching logic review including testing for bias, performance testing, usability and accessibility testing, testing how the system handles incomplete or unusual data) Develop a training strategy for stakeholders who will be interacting with the tool (including creating training materials, manuals, and onboarding guides) Set up a Monitoring and Evaluation (M&E) framework to assess whether the tool is achieving its intended objectives and identify challenges Build an outreach and communication campaign (including creation of relevant material) to promote the platform	High	High

Phase	Objectives	Key actions (indicative)	Human resources	Financial needs
Pilot	Test how the platform works in real conditions, gather evidence, and make refinements before roll-out	Agree on the details of the pilot e.g. select pilot regions or offices, target groups, sectors etc. Train job counsellors, social workers and frontline staff on using the tool Recruit jobseekers and employers for the pilot Monitor user behaviour and matching results in real time Collect feedback and qualitative insights from main user groups e.g. MIS beneficiaries, employers, job counsellors (through surveys, interviews, help-desk logs, workshops) Identify gaps in skills assessment, guidance, or user experience Measure early outcomes e.g. share of users actively using the tool during the pilot, user satisfaction, user engagement with certain features, relevance of recommendations, share of recommendations that were followed by an action, share of recommendations that resulted in hiring, average resolution time of technical issue Document lessons learned in a report with clear improvement needs Integrate a Randomised Controlled Trial (RCT) or comparison group evaluation upfront before the national roll-out Implement improvements based on the pilot findings, both at the operational and technical levels	Medium - high	Medium - high
National roll-out	Implement the platform nationwide (if national roll-out is not possible/ preferred, then gradual scale-up can be considered)	Launch communication campaigns for jobseekers and employers, and the public in general Integrate additional data sources (if and as needed) and ensure interoperability Update/refine M&E framework, targets and key indicators if and as needed Update training strategy and manuals and deliver staff training nationwide (train the trainer approach) Establish long-term support structures in place e.g. helpdesk or helpline, maintenance teams	Medium - high	Medium - high
Post-roll-out	Ensure long-term maintenance and performance of the platform, fairness, and adaptability	Monitor ongoing usage, user engagement, performance of the platform in general and its underlying algorithms, and matching outcomes continuously Introduce additional functionalities based on user needs, resources and constraints Watch for fairness issues (bias, exclusion, low engagement of certain groups) Regularly update skills taxonomies, ESCO mapping, and occupational lists Maintain helpdesk and the most effective support channels and training sessions for job counsellors, social workers (or/and other users) with the necessary updates Conduct periodic evaluations to measure impact on employment outcomes	Low - medium	Low - medium

Note: The implementation plan will heavily depend on whether the platform is built entirely from scratch or developed by adapting existing tools.
Source: Authors' elaboration.

Figure 6.1 presents a provisional timeline to show how the different phases unfold over the full implementation period and beyond.

Figure 6.1. Indicative timeline for the implementation of the matching platform

	Y1				Y2				Y3			
Phase / time	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Planning												
Development												
Pilot												
National roll-out												
Post-roll-out												

Note: The timeline will heavily depend on whether the platform is built entirely from scratch or developed by adapting existing tools.

Source: Authors' elaboration.

6.3. Implementing an AI-enabled job matching platform requires co-ordinated steps and careful considerations

The implementation of an AI-enabled job matching platform involves several steps, and this section highlights the key issues in this process. It discusses the main risks and safeguards associated with AI deployment, approaches to responsible design, piloting, monitoring and evaluation, as well as broader policy measures.

6.3.1. The AI functionalities of a matching platform may entail several risks and challenges

There are several constraints, risks and challenges associated with the design, development and operation of an AI-powered matching platform. These issues can affect – to a lesser or greater extent – the platform's performance, user experience, trust, and compliance. The identified constraints, risks and challenges fall into the following seven categories:

1. *Data privacy and security issues:* The platform must comply with fundamental data protection principles such as the General Data Protection Regulation (GDPR) and the EU AI Act, as it processes personal and sensitive personal information such as employment histories, skills profiles, socio-economic characteristics, and beneficiary data (even if details such as gender, age, or nationality are not meant to be used for matching purposes). Ensuring lawful data processing, consent management, secure storage, encrypted transmission, algorithmic decision transparency, cross-institutional data-sharing arrangements and carefully managed access rights is essential. Unauthorised access or data breaches through for example hacking or weak access controls, could significantly undermine the platform's credibility and create serious legal implications and reputational risks for the managing authorities.
2. *Algorithmic bias and fairness:* The underlying AI algorithms may contain biases or discrimination which in turn could perpetuate or amplify existing labour market inequalities. This may lead to unfair treatment of certain groups, including the MIS beneficiaries themselves, women, older workers, or people with disabilities, ultimately harming their employment opportunities and prospects. If for example, certain sectors historically employ more men than women, the platform may at the end suggest to women fewer positions in technical fields. Or if the underlying model uses indicators

such as previous employment history, users who have been out of work for longer (which might be the case for MIS beneficiaries) may end up receiving fewer or lower-quality job suggestions.

3. *Trust, transparency and accountability*: These are key as an AI-powered matching platform can influence and affect not only people's decisions but also their lives. If users do not understand how the system works, how the results are produced or if they feel they cannot rely on it, they may be hesitant to engage with it or may question its outcomes. Likewise, if it is unclear who is responsible for monitoring the system and addressing issues, it can be difficult to identify and correct potential errors.
4. *Accessibility and exclusion*: Not all users begin from the same starting point. In practical terms, this means that naturally users may have different levels of digital literacy, or access to digital means and internet connectivity. These discrepancies may affect how easily they can use the platform and limit their ability to benefit from the platform's functionalities. More broadly, accessibility-related issues present a challenge for the adoption of AI tools in general as there is a risk that the digital divide could become even more pronounced if certain users are unable to engage with the technology effectively.
5. *Technical and operational issues*: The platform's technical complexity may entail challenges related to model accuracy, system stability, ongoing maintenance, and the ability to scale as usage grows. Real-time processing of large datasets, connecting with multiple systems, and keeping the system updated to reflect labour market developments all require continuously available and adequate technical resources. Operational issues, such as temporary system downtime, outdated information, or limited technical support may also hinder both user experience and the platform's overall performance. For instance, if the platform experiences a short period of downtime during peak usage hours, jobseekers may not be able to access their recommended matches, and counsellors may have limited information. Similarly, if labour market data is not updated regularly, the platform may continue suggesting roles that are no longer available, limiting its usefulness for jobseekers and employers alike.
6. *Misinterpretation and misuse of results*: AI-generated matches offer probabilistic suggestions that are indicative. Some users, however, may mistakenly interpret these suggestions as mandatory, or even linked to their eligibility for benefits or preferential treatment by the managing authorities. Over-reliance on automated results by all types of end users – including jobseekers, employers, counsellors and social workers – may lead to inappropriate referrals or overlook important contextual factors. Likewise, policymakers may draw incorrect conclusions from aggregated results, potentially leading to poorly informed decisions.
7. *Data quality and interoperability*: The matching platform relies on various information systems, which though are not always adequately interconnected. What is more, data formats, APIs, or synchronisation mechanisms are not always standardised and fully aligned. These issues may result in fragmented information, inconsistent or outdated records, or duplicated administrative effort, all of which can have an adverse impact on the quality and reliability of the AI-driven matching process and other related processes. If for instance, an employer posts a new job vacancy into one of the underlying systems which is not synchronised promptly with the matching platform, the vacancy may not appear on the platform in time. As a result, some jobseekers may miss the opportunity, while the employer may receive fewer applications.

6.3.2. Responsible design and human-centred implementation will ensure the AI-based matching tool delivers inclusive, reliable, and sustainable results

Provided that the aforementioned constraints, risks and challenges are identified at the outset, and in order to fully seize the benefits of AI, it is essential to take proactive steps to mitigate their impact (Brioscú et al., 2024^[11]). In doing so, the two countries can draw on established international frameworks that guide the

responsible use of AI, such as the OECD's AI Principles, which seek to promote trustworthy, transparent and accountable AI systems (OECD, 2024^[2]).¹ Among other important issues, such frameworks highlight the importance of responsible design and human-centred implementation, hereby ensuring that AI solutions are developed with the needs of users in mind, remain aligned with broader public-interest objectives, and support rather than replace human judgement.

The most important steps are the following:

1. *Establish a strong governance framework surrounding AI use in the matching platform:* A clear governance framework can help ensure that AI is used responsibly, ethically, and in compliance with rules such as GDPR and the EU AI Act. Oversight bodies, such as Ethics Committees or Boards (e.g. PES in France and Flanders in Belgium) can provide regular monitoring, evaluate risks, and guide improvements.
2. *Ensure human oversight and allow for flexibility in use:* AI should complement, rather than replace, professional judgement. Managing authorities in both Belgium and Greece should make it clear that while users can access and use the platform independently, final decisions remain with staff and that they can override AI recommendations when and as needed. This can help reassure both jobseekers and employers but also the staff of the competent agencies that they still have control and can make their own decisions. This is also aligned with legal requirements such as GDPR (Article 22) which protects individuals by giving them the right not to be subject to decisions made solely through automated processing (Council of the European Union and European Parliament, 2016^[3]). Especially when it comes to vulnerable jobseekers such as the MIS beneficiaries, face-to-face interactions remain critical (OECD, 2021^[4]) as some of them may lack the digital skills, may not have access to the necessary digital infrastructure (e.g. internet connection, computer, or smartphone) or need additional support by a human after having interacted with the platform. Finally, the use of the platform should remain voluntary for all end users. Allowing jobseekers and employers to choose whether and how they engage with the tool helps maintain trust and ensures that no one feels obliged to rely on AI-generated recommendations. The same applies to counsellors and social workers.
3. *Involve and support end-users early and regularly:* Engaging both staff as well as jobseekers and employers from the beginning and keep them engaged on a continuous basis would help ensure the platform is useful, user-friendly, and trusted. Feedback can greatly improve buy-in. It can be indeed collected during the design phase as well as prior to rollout through several ways including consultations, testing procedures and satisfaction surveys. It's also important that staff who will be interacting with the tool receive relevant support including through training, informational materials, guidelines, as well as a dedicated contact point for technical support. Informational and guiding material for jobseekers and employers should also be available on the platform itself.
4. *Collaborate closely with contractors and build internal expertise:* More often than not, the development of digital solutions such as the AI-powered matching platforms are outsourced to external contractors. Close and regular communication and collaboration with them is essential to ensure that the actual development occurs as initially planned, tools meet user needs, and that bottlenecks or technical issues are resolved quickly. In some cases, developers work from within the agency, allowing them to better understand the general context and collaborate closely with staff to ensure that technical aspects are developed in line with the operational processes (e.g. PES in Norway and Luxembourg). Rather than relying solely on external developers, a sufficient level of internal expertise vis-à-vis the matching platform should exist within the managing agencies to oversee the tool throughout its lifecycle. This involves understanding how the platform works, monitor its performance, guide its initial development as well as any future updates, ensure long-term sustainability and support other staff as well as the end users (perhaps through a train-the-trainer approach, where a selected group of staff receive training from the developers).

5. *Strengthen trust, transparency, and accountability:* Users need to understand how AI-generated recommendations are produced and who is responsible for the results. This includes clear explanations of the data used, the logic behind the model, and the safeguards in place and would help to build trust among the tool's end users. For example, if a job counsellor does not understand which information the matching platform used or how it generated its suggestions, they may provide guidance that does not fully match the jobseeker's situation or disregard more suitable opportunities. Furthermore, clear accountability mechanisms including regular risk assessments and monitoring of system performance are needed so that users know who is responsible when errors occur – whether the issue stems from the underlying algorithms, incorrect data, or operational misuse. Transparency and explainability on how the matching platform uses AI should apply both within the managing organisations and towards the public. For instance, the PES in the Netherlands, publishes information about how AI is used, including data sources, bias-mitigation safeguards, and the measures in place for human oversight (UWV, n.d.[5]).
6. *Promote inclusion, fairness and responsible use:* The matching platform should above all be accessible and straightforward to everyone. This includes supporting staff, jobseekers and employers with limited digital literacy, connectivity or access, including by providing alternative channels for those who cannot use it. Such channels may include for instance multi-device compatibility, offline access, low-data modes, and SMS/USSD/IVR channels as well as in-person support points.² Enriching the platform with features that can be particularly helpful to the more disadvantaged including people with disabilities and elderly citizens and ensuring that its interfaces meet accessibility standards so that no individuals feel excluded is also key (e.g. interpretation to different languages, sign language, screen reader compatibility, large font options, adjustable contrast, zoom functionality, mobile friendly interfaces, captions/subtitles for audio or video content, visual alerts instead of only sound notifications). Users with low literacy levels can be supported through multiple ways too (e.g. use of icons, visuals, voice guidance, and simplified text). User support and/or training can be provided to these groups to ensure they can use these tools effectively (e.g. with the help of guided onboarding, tooltips and tutorials). To ensure that the AI-driven matching tool is fair, the implementation of measures that address bias is really key. This starts with building fairness into the system from the design stage. Safeguards – such as bias audits, representative datasets, and ongoing monitoring – can help ensure that recommendations remain equitable and do not disproportionately disadvantage vulnerable groups. Finally, clear guidance and appropriate training are essential to help users understand how to use the tool correctly, how to interpret its suggestions, and when to rely on their own judgement, thereby preventing misinterpretation or over-reliance on AI-generated results.

6.3.3. Testing is essential for identifying what works well and allows for refinements before the platform is rolled out

Once the technical and operational details of the matching platform are defined, it is important to test it through a pilot phase before any nationwide implementation. A pilot phase would allow the tool to be used in a real environment, understand how users interact with it, identify what works well and not that well and make improvements before scaling it up or rolling it out nationwide.

There are various approaches to piloting a digital matching platform, depending on the goals, priorities, resources and time constraints of the managing agencies:

- *Pilot with regional focus:* One approach is to introduce the tool in a small number of regions or employment offices. Testing the tool in different areas helps reveal how it works in different local labour markets comprised of different user characteristics and contexts. For example, regions with high unemployment versus areas with increased labour demand.

- *Pilot with target group focus:* Provided that the target group in this very specific case is MIS beneficiaries, the idea would be to focus on this group but with different backgrounds and needs. Testing the tool with this group helps assess whether its specific functionalities (such as skills identification or personalised advice) genuinely support users with more complex needs and barriers. On the employer side, the tool can also be tested with a small number of firms willing to experiment with a new recruitment solution. This can provide insights into how employers use the platform, whether the candidate suggestions are relevant, and how they react to analytics on outreach or diversity.
- *Pilot with sectoral focus:* Another approach involves testing the tool with a focus on specific sectors; for instance, construction, services, hospitality, retail, health and social care. This is useful when sectors face acute labour shortages, require highly specific skills, or have fast-changing job profiles. Sector pilots help verify whether the tool correctly handles sector-specific skills, training requirements, and types of vacancies. Each country can select different sectors depending on the context, priorities and other factors.
- *Pilot with functionalities focus:* A phased pilot can also test only certain functionalities of the tool first. For instance, the recommendation engine, vacancy classification, skills assessment, or labour market information functions could be trialled separately. This approach makes it easier to refine each functionality before integrating everything into a full system.

Regardless of the pilot approach chosen, certain actions should run in parallel. Counsellors and staff need to be trained so they understand the tool and can support users effectively. User engagement should be monitored, including which features are most used, what recommendations the system produces, and whether these suggestions feel relevant to jobseekers and employers. Feedback can be gathered through surveys, interviews, and help-desk queries. Early indicators should also be tracked. For example, whether MIS beneficiaries report feeling better supported, whether the tool helps them discover suitable vacancies they might have missed, or whether employers find the proposed candidates appropriate. As an example, if jobseekers frequently ignore suggested vacancies, this could indicate that recommendations are not well-targeted or that the rationale behind suggestions is not clear enough.

Given that there is limited rigorous evaluation of similar tools internationally, countries have an opportunity to pioneer in this field by integrating an evaluation design from the start. If feasible, the pilot could incorporate a randomised controlled trial (RCT), where access to the tool is randomly assigned across for instance local offices. When properly designed and implemented, an RCT can provide strong evidence on whether the tool improves matching outcomes more effectively than existing services (see also Section 6.3.4 on monitoring and evaluation).

Once the pilot phase is completed, the findings could be then used to refine the tool. This may include improving the user interface, adjusting the matching logic, strengthening guidance features, and addressing any shortcomings identified. After these improvements have been made, the system can be gradually scaled. Depending on the pilot design, this may mean expanding to more regions, involving additional users such as jobseekers, employers or counsellors, integrating further data sources, covering more sectors, or adding on more functionalities. Scaling should take place on a step-by-step basis and remain flexible, so the system can grow without losing quality, stability, or reliability.

6.3.4. Continuous monitoring and evaluation of the tool shall ensure that it operates as intended, improves outcomes for users, and is fine-tuned based on evidence

Just like ALMPs, digital and AI solutions should also be subject to rigorous and regular monitoring and evaluation to ensure model performance and assess the impact on end-users (OECD, 2022^[6]; Brioscú et al., 2024^[11]). Evaluation of the matching tool refers to the systematic and objective assessment of the tool's design, implementation, and results. The purpose of such an evaluation is to determine the relevance of the tool, the extent to which it fulfils its intended objectives, its effectiveness, and its broader impacts. Evaluation results can guide policymakers in making modifications or developing future tools.

A key component of rigorous evaluation is counterfactual impact evaluation, which aims to establish a causal link between an intervention and its intended outcomes. For the matching platform, this means assessing whether the support provided through the tool has a measurable impact on labour market outcomes of its users as well as on any other groups affected by the tool. In practical terms, this involves comparing the employment outcomes of MIS beneficiaries who used the tool (the so-called treatment group) with those of a similar group of beneficiaries who did not use it (the control group), ensuring that any observed differences can be attributed solely to the tool's existence. For employers, a counterfactual impact evaluation can assess the extent to which the tool improves recruitment outcomes – for example, whether vacancies are filled more efficiently or with better matches than would have occurred without such a tool.

In the evaluations of digital matching tools, typical outcome indicators include: job finding rates, employment status, job retention, job quality (contract type, working hours, job stability), earnings and income effects, occupational mobility, employer satisfaction and vacancy fill rates. Evaluation effects may also extend beyond labour market outcomes to include broader social and health indicators, providing a more comprehensive understanding of the tool's overall impact, provided the necessary data exist and can be linked appropriately (e.g. deduction in dependency on social assistance, social inclusion, financial well-being, general health status).

With a few exceptions (e.g. the SEND@ digital recommender tool used by the Spanish PES), most digital and AI-powered tools currently in operation have not undergone rigorous impact evaluations (OECD, 2023^[7]). Given both the general lack of evaluation evidence and the increasing strategic importance of such tools, there is substantial momentum to incorporate robust counterfactual impact evaluation into their development. In the case of pilot projects, this is particularly valuable for informing decisions on scaling up and national rollout. If a tool is designed from scratch, it also becomes feasible to embed a randomised controlled trial (RCT) within its design. An RCT is considered the most robust method for establishing causality, as random assignment to the tool ensures that any differences in outcomes between participants and non-participants can be attributed to the tool rather than to pre-existing differences among beneficiaries.

Strengthening the evidence base would not only support more refined improvements in design and implementation of the tool (e.g. identifying which segments of jobseekers benefit most or how counsellors and social workers can use the tool more effectively), but also increase buy-in among users and facilitate broader adoption (e.g. other MIS beneficiaries who were not convinced in using the tool in the first place, other potential users such as jobseekers, employees seeking new opportunities, employers etc.). In the case of both Belgium and Greece, there is already a solid foundation for data collection and exchange to support such evaluations. This includes reliable and good quality administrative data, interoperability between registries and the possibility of integrating additional data sources.

Alongside impact evaluations, process evaluations are also essential. These evaluations can examine whether the matching tool is embedded in service delivery as intended, whether staff and users understand and use it appropriately, and whether implementation challenges exist. Process evaluations are able to collect structured user feedback to understand how useful the tool is for different sub-groups – e.g. individuals with various employment barriers, men vs. women, younger vs. older beneficiaries, and those with disabilities or health conditions. Inputs from job and employer counsellors and social workers is equally important, as they can provide assessments on usability and integration into workflow based on their expertise and valuable experience in serving both jobseekers and employers. These evaluations may rely on focus group discussions, interviews, administrative data, and survey data capturing well-being, motivation, and social integration outcomes.

Cost-benefit analysis can then determine whether the matching tool generates net benefits once both operational costs and outcome improvements are taken into account. Such analysis can help quantify the tool's overall value and distributional effects, and it can also be disaggregated to reflect the perspectives

of different stakeholders. From the user perspective (e.g. jobseekers and employers), the focus may include time savings, improved matching quality, reduced search costs, as well as any reductions in reliance on social assistance. From the counsellor and social-worker perspective, gains may arise through reduced administrative burden and increased time available for personalised support. It also allows policymakers to compare the tool's returns with alternative interventions and assess whether scaling up represents an efficient use of resources. From a societal perspective, the analysis can incorporate broader benefits such as reduced dependency on social assistance, increased tax revenues from higher employment, and more efficient functioning of the labour market.

Finally, ongoing and careful monitoring of the tool is critical to track implementation over time. Developing a clear and diverse set of monitoring indicators – covering usage patterns, system performance, data quality, and distributional effects – from the outset and defining the frequency, data sources and responsibility for monitoring will help ensure continuous improvement of the tool and its underlying algorithms.³ Ideally, KPIs should be accompanied by target values. These target values should be derived from analysis, ensuring that they are grounded in realistic and achievable expectations. Ideally, the target values should be set not only at a national level but can also be disaggregated by local employment office or region. As the platform's use is more frequent and expanded, the initial target values can be adjusted based on continuous performance data, fostering continuous improvement and more accurate goal setting.

6.3.5. Complementary policy actions beyond the introduction of digital matching tools

Digital matching and career recommendation platforms, even when perfectly designed and comprehensive enough to be able to respond to the needs of all stakeholders – whether jobseekers, workers, employers, job counsellors or social workers – cannot fully address all factors that influence employment outcomes. Some of these issues lie beyond the scope of digital tools per se, even though they remain highly relevant to the activation of jobseekers, particularly the ones with weaker labour market prospects. This section touches upon some of these issues. These are framed as policy actions that could be pursued in parallel with the introduction of digital tools in order to further improve employment outcomes.

Four important issues are being discussed. The first one focusses on organisational readiness, co-ordination and long-term financial sustainability. The second one discusses the importance of good and sustainable employment opportunities for MIS beneficiaries and beyond, including through stronger engagement with employers. The third one is about ensuring the continuous provision of ALMPs and related programmes. The final point concerns reducing or closing information gaps by improving outreach and communication with target populations.

Ensure organisational readiness, co-ordination and long-term financial sustainability

Most of the times, successful implementation requires not only technical deployment but also wider organisational change. This includes new workflows, updated procedures, and a shift toward data-driven decision making. Resistance from staff, insufficient training, uncertainties around new responsibilities, and disparities in institutional capacity can hinder successful adoption of the matching platform and any other digital tool. Given the number of stakeholders involved in both countries, weak co-ordination and co-operation can lead to fragmented decision making and delays in implementation.

Furthermore, building an AI-based matching platform requires long-term financial sustainability and clear budgeting for future needs. This involves not only the investments associated with the tool's initial design and development but also for ongoing maintenance, updates, training, monitoring, and evaluation. Insufficient or irregular funding may hinder continuous improvement or compromise the quality of the platform.

Expand good and sustainable employment opportunities for MIS beneficiaries and individuals with vulnerabilities

The development and implementation of digital solutions aim to improve matching possibilities for MIS beneficiaries and people in vulnerable situations but also enhance the general conditions surrounding matching to adequately respond to the specific needs of this target group. This approach assumes to a large extent that jobs for people in vulnerable situations exist, but several factors prohibit them from being found and that matching is either completely missing or inadequate. Both of these facts are largely true, and these are issues that can be resolved or at least partially treated as part of the development of the functionalities that have been extensively discussed under the two concepts. For instance, functionalities that can adjust job postings to correct for biases and better align with the profiles of MIS beneficiaries, or functionalities that can effectively identify and showcase the skills and prior experience of this group, so MIS beneficiaries are not overlooked by employers.

Nevertheless, anecdotal evidence suggests that the issue may be deeper. Employment opportunities specifically for people in vulnerable situations are more often than not limited and, when they do exist, their quality and sustainability are inadequate. A common scenario relates to the existence of many candidates, particularly in entry-level or low-skilled roles. When many jobseekers compete for a limited number of opportunities, it leads to frustration, disengagement, and ultimately a loss of trust in the platform and the system in general. For users with vulnerabilities, repeated rejection can have particularly strong negative effects including on their mental health. Despite the fact that labour market conditions in each country are of course different, some of the underlying factors and barriers affecting the availability of jobs for this group may be common cross-border.

One important barrier relates to employer perceptions and stereotypes that are often translated into hiring practices. Some employers may be reluctant to hire individuals from vulnerable groups, including people receiving social assistance, long-term unemployed individuals, migrants, or individuals with limited skills, work experience or work capacity. Such perceptions may stem from the fact that they have limited experience working with such candidates and may therefore be uncertain about their skills, reliability or ability to integrate into the workplace. As a result, the vacancies they post may indirectly exclude these individuals, or they may be filtered out later during the interview or hiring process. In these cases, the challenge for PES staff is not only matching jobseekers with vacancies but most importantly encouraging employers to consider a broader pool of candidates.

Addressing this issue requires comprehensive employer engagement strategies and tailored actions. This includes financial incentives for hiring individuals who have been out of the labour market for an extended period as well as initiatives to support the hiring of individuals from vulnerable backgrounds. For instance, the PES in Sweden provides incentives to employers to hire more jobseekers with disabilities and other hiring obstacles such as the lack of Swedish language skills, through a range of measures, including wage subsidies that intend to offset jobseekers' reduced productivity (OECD, 2025^[8]). Developing programmes – such as training or work experience programmes – in co-operation with employers can generate multiple benefits. Such programmes can be tailored to employers' skills needs while providing individuals from vulnerable groups with practical work experience and exposure to real workplace environments. At the same time, the PES can establish arrangements with the participating companies to engage candidates from these groups in those programmes and potentially recruit a share of them upon completion. Other initiatives can include job shadowing (like the “Duo-Days” model introduced by the PES in Slovenia), work trials, immersion days, or company discovery days. These can be particularly valuable for vulnerable jobseekers, while at the same time they can help reduce employer uncertainty prior to hiring. Such initiatives allow employers to observe candidates' capabilities directly, assess how well they may fit within the team, identify potential adjustments or support needs and help build mutual trust. Finally, workplace adaptation support or dedicated job counsellors can assist both the employer and the employee during the first months of employment.

Some employers may be willing to hire individuals facing vulnerabilities but may hesitate because they feel they won't be able to provide the necessary support in the workplace. In such cases, the PES could offer practical assistance and guidance to employers. For example, the PES in Estonia provides various forms of workplace support, including funding for necessary equipment for employees with disabilities, adjustments to working arrangements such as reduced working hours, and other forms of support tailored to individual needs. The provision of post-hiring support from the side of the PES is also essential, especially for jobseekers with vulnerabilities. Communicating the availability of such support to employers from an early stage can help build confidence and eliminate any potential concerns. This support may include follow-up check-ins, assistance with workplace integration, guidance in addressing any challenges that may arise, and training where needed to help individuals adapt to the work environment.

Addressing employer perceptions should involve clearly articulating the benefits of inclusive recruitment practices – both for the employers themselves but also for the society as a whole. This can be achieved through Corporate Social Responsibility (CSR) initiatives, targeted awareness activities such as in-person and online seminars, as well as concise, well-designed briefing materials that highlight success stories, productivity gains, and the broader societal value of inclusive employment. In this respect, the PES in Greece has established initiatives such as the so-called “Independent–Strong–Free” one, which aims to create employment opportunities for women who have experienced abuse. To increase their negotiating power, employer counsellors who engage directly with employers should be equipped with practical prompts and talking points to be able to effectively communicate the advantages of hiring individuals from disadvantaged groups, dispel misconceptions, and foster more open and informed employer and existing staff attitude. Another way of promoting inclusivity would be to award employers who hire frequently from those groups by providing a “partner” badge or label, as done, for example, by the PES in Luxembourg. This could serve as both a recognition and an incentive, motivating other companies to do the same (OECD, 2025^[8]).

Employers' hesitation may partly stem from limited or inaccurate perceptions of the profiles of individuals facing vulnerabilities. Helping employers better understand these profiles can therefore play an important role in reducing such concerns. In this context, improving the depth and quality of jobseeker profiles – including via the functionalities of the platform – could potentially create more opportunities. Providing employers with more comprehensive information about candidates' skills and experience can highlight strengths that may otherwise remain overlooked. This may include informal or transferable skills, prior work experience, as well as broader employability attributes such as motivation, adaptability, attitude and communication skills.

Outreach and communication activities play a key role in securing and expanding employment opportunities for individuals facing vulnerabilities, especially if these take place in a proactive manner. Such efforts can help raise awareness about the full range of support services available and the benefits of hiring from these groups. To ensure that information reaches a broad range of employers, outreach efforts should use multiple channels. In addition to personalised contact with companies, PES can rely on wider communication tools such as mass communication methods, printed material, information campaigns, job fairs, or dedicated information sessions. Participation in events organised by other stakeholders can also provide valuable opportunities to present available services and strengthen visibility. Intermediaries such as employer associations, chambers of commerce and professional networks can be particularly effective partners, as they are able to disseminate information to their members and encourage engagement. Most importantly, regular and consistent communication and co-operation with networks and associations representing individuals with vulnerabilities is crucial. Their inputs can help inform the design and implementation of relevant initiatives while at the same time, their feedback will be key for continuous assessment and refinement. Particular attention should be given to ensuring diverse representation within these networks and associations, reflecting different types of vulnerabilities and experiences. At the same time, these networks serve as core channels through which public agencies can disseminate information

and promote initiatives and tools like the matching platform, thereby enhancing greater take up among target populations.

PES could also organise dedicated employer awareness events – either open to all employers or targeted to specific sectors – to provide information on hiring individuals from vulnerable groups and present relevant support measures. These events can be organised in hybrid formats or complemented with virtual participation options in order to maximise accessibility and participation. Similar initiatives already exist in several countries. For example, the “AMS Business Tour” organised by the Austrian PES aims to strengthen employer engagement and address workforce challenges by presenting available services and building closer co-operation with companies (OECD, 2025^[8]).

While it is important to create jobs for these individuals in the first place, equally important is to ensure that these jobs are of good quality and sustainable. Another challenge concerns the quality and sustainability of available jobs. Sometimes, matching platforms optimise volumes i.e. the number of matches or placements, without sufficient attention to long-term outcomes for users. This approach can have problematic implications when one of the key goals is to support vulnerable populations. While increasing access to jobs is of utmost importance, placing users into low-quality or unstable roles can reinforce insecurity and uncertainty rather than improve livelihoods and promote self-sufficiency. Therefore, they may find themselves being trapped in dead-end jobs that offer short-term financial relief but ultimately limit future opportunities, for example by leaving little time to pursue training or actively search for better opportunities.

Indeed, the results of the analysis in Chapter 4 highlight that MIS beneficiaries are often concentrated in temporary, part-time, or low-paid employment with limited prospects for advancement. It's also shown that they frequently return to unemployment after relatively short employment spells (e.g. around eight months). The matching and career recommendation platform can help those individuals identify available vacancies including the ones with better long-term prospects, while also reducing the time between successive employment spells. To be able to do this, the platform should clearly define what constitutes a “good opportunity” and promote it. This includes emphasising key factors such as employment stability (e.g. nature and security of the contract) alongside fair and adequate wages. In addition, it should highlight opportunities that support skill development, offer clear pathways for career progression, and are provided by employers with a strong reputation.

Despite the platform's capabilities, individuals themselves cannot affect or ensure the quality of those opportunities. Several countries have combined activation policies with measures aimed at promoting more stable employment pathways. For instance, Germany's integration programmes for long-term unemployed individuals often include structured training and work placements designed to lead to more sustainable employment rather than short-term job placements. Similarly, in Finland, employment services place strong emphasis on training and skills development as part of activation strategies, ensuring that individuals move towards occupations with better long-term prospects. In Slovenia, employers who fail to meet their own obligations or commit labour law violations are recorded in a negative registry and rendered temporarily ineligible for job referrals or financial support (OECD, 2025^[8]).

Building on such approaches, policy can further strengthen job quality through concrete measures. This includes setting minimum standards for jobs that are promoted on platforms. Such standards may include – in addition to respect for wage rules –, clear description of tasks and a minimum job duration. In addition, funding from public sources could be tied to real outcomes, like whether people stay in their jobs or move to better positions over time. At the same time, simple systems can be introduced to monitor and signal employer quality. For instance, accreditation or rating schemes can ensure that only employers who meet basic standards are fully included. Obviously, stronger labour inspections and data-sharing mechanisms can help identify patterns of precarious or poor-quality employment.

Policies can also encourage employers to think beyond short-term hiring, for example through co-financing on-the-job training linked to career progression, rather than just filling immediate vacancies. Finally, a shift

in performance measurement is essential. Instead of focussing only on the number of placements, policies should meticulously track what happens afterwards. This includes how long people stay employed, whether their earnings improve, their progression in better roles and other indicators of meaningful and sustainable employment.

ALMPs and other opportunities should be continuously available

Even the most advanced career recommendation tools cannot produce their intended results when there is lack of underlying services. All types of ALMPs – including training first and foremost – but also other types of programmes such as educational opportunities and social services must be available and shown on a continuous basis, so that individuals can see them and act when they are ready, rather than waiting for limited enrolment windows or uncertain programme cycles. This does not require that each and every programme run at all times; yet it means ensuring consistent access through rolling entry points, modular training formats, and baseline services such as job search guidance that are always available.

Naturally, the existence and continuous availability of programmes and services rely on stable and predictable funding. Funding disruptions can create inefficiencies and uncertainty to all. Nevertheless, given the limited resources that PES usually have at their disposal, it is important that funding-related decisions are based on what works well and what is not, which can only happen following rigorous evaluations and assessments. This includes not only programmes per se but also the digital tools themselves (see Section 6.3.4 of this Chapter) for a more detailed discussion on this matter).

Lack of information about available opportunities may lead to discouragement and de-activation

While ensuring a sufficient number of job opportunities is one fundamental prerequisite for the sound operation of a matching platform, ensuring an adequate and relevant pool of candidates is equally important. Although situations with insufficient candidates may be less common, they do arise under specific occasions. For instance, this can occur in specific sectors (e.g. care work, construction, technical roles) or in certain geographic areas. The issue here is not a lack of labour demand and supply, but rather a mismatch related to skills, attractiveness, or accessibility. Jobs could remain unfilled not because candidates do not exist, but because they are not adequately informed, prepared, or incentivised to take them up.

The platform here can play an instrumental role in reducing information gaps and helping individuals better understand available opportunities and pathways. Through its functionalities and by drawing on multiple data sources, including job vacancy postings, administrative data, occupational classification systems (e.g. ESCO), and labour market information, it can make jobs and training options more visible, relevant, and easier to understand. For example, it can summarise key aspects of a job such as typical tasks, required skills, working conditions and earnings to expect, and if data permit what progression opportunities may follow. It can also guide users towards concrete next steps, such as targeted training or other activation options, helping them come one step closer to employment. If this information is presented in a structured, friendly and personalised way, the platform can make opportunities feel both more realistic and approachable. For instance, by indicating whether a job is accessible within a reasonable commute or compatible with personal constraints.

Although the platform itself can reduce practical frictions including by better filtering, indication of supportive options (e.g. childcare services in nearby radius), actionable suggestions (e.g. this job is reachable in 30 minutes by public transport), it cannot fully address structural barriers. Complementary policy actions are therefore essential. In particular, reducing or eliminating information gaps requires proactive and sustained outreach efforts. Many individuals, especially those in vulnerable situations, may not be aware of existing tools, support measures, or opportunities, or may not fully understand how to

access and use them. Without this awareness, the risk of discouragement and disengagement is very high, especially for those further from the labour market. It is therefore essential for policymakers to invest not only in advanced digital solutions, but also in outreach strategies and relevant activities. Such activities may include career guidance and awareness campaigns that actively reach target groups, raise awareness of available support, and clearly explain how digital tools can be used and benefit them in practice. Ensuring that people understand both the opportunities available to them and how to navigate digital platforms is key to ensure increased participation and continuous engagement.

6.4. Digital job matching and career recommendation tools should draw on multiple types of data held by different institutions to maximise their effectiveness

In order to match jobseekers to vacancies effectively and provide effective career advice, digital job matching and career recommendation tools need to draw on multiple types of data held by different institutions in both Greece and Belgium. This, in turn, calls for an IT infrastructure that supports secure, real-time data exchange and linkage across systems and organisations. Moreover, the quality and accuracy of the recommendations produced by such tools critically hinge on the coverage and quality of the underlying data. Limited coverage restricts the tools' usefulness and take-up, while poor-quality data undermine the relevance and robustness of the recommendations.

This section provides recommendations on the data that could most effectively support job matching and career recommendation tools for Greece and Belgium, as well as measures to improve data coverage and quality. It also briefly outlines some key legal considerations governing the use of these data for each country separately.

6.4.1. In Greece, five types of data can support the matching tool, but an expanded infrastructure is required for real-time linkages and exchanges

Based on the analysis, the key recommendations for Greece include:

- The job matching tool should draw on information on skills, competences and employability from the GMI platform and DYPA, complemented by employment histories from ERGANI.
- Data on demographic characteristics should be used for monitoring and evaluation – in particular, to assess patterns of use of the tool and potential biases – but not as direct inputs in the matching process.
- The web services provided by KED offer a robust infrastructure that could be further expanded to ensure that all data necessary for the well-functioning of the tool are exchanged and linked securely and timely.
- Jobseekers and employers in registering occupational information, and using a common occupational nomenclature across registries, can improve data quality and reduce the risk of coding errors.
- Constructing jobseeker employment histories by drawing not only on ERGANI but also on social security data can improve coverage by incorporating information on self-employment (and other non-salaried work) and employment in the public sector. At the same time, survey-based measures of skills and competences (such as DYPA's profiling questionnaire) remain essential to capture skills acquired through informal employment and other forms of work.

In general, decisions on data architecture and infrastructure for job matching tools need to be closely aligned with the overall governance of the tool. Two strategic governance decisions will have important implications for the underlying data architecture of the job matching tool. The first strategic decision

concerns institutional ownership. This choice will determine which data exchange agreements need to be established, between which institutions and on what technical basis. DYPA already holds extensive labour market data in its information system, which is well suited to support a job matching tool, as these data are collected explicitly to underpin DYPA's processes and activities aimed at reintegrating jobseekers into the labour market. Moreover, DYPA already operates a job platform through which jobseeker can browse vacancies and employers can search for candidates, and is in parallel developing an advanced competency-based job matching tool. As these tools are targeted to all jobseekers registered with DYPA, they are also intended to serve MIS beneficiaries registered with DYPA. There is therefore considerable scope to exploit synergies and avoid duplication. At the same time, primary responsibility for GMI beneficiaries lies with the Ministry of Social Cohesion and Family.

The second, closely related strategic decision concerns the target group of the tool. If the tool is intended to serve only MIS beneficiaries under the third pillar (i.e. those with an obligation to register with DYPA), DYPA's IIS could provide the primary data backbone for job matching. DYPA data are already collected with the explicit purpose of supporting the labour market integration of registered jobseekers and are already now used for job matching. However, restricting the tool to DYPA data alone would exclude a non-negligible share of GMI beneficiaries who are not required to register with DYPA, for example because they are employed at the time of applying for the scheme. If the target group of the tool is to include these GMI beneficiaries as well, the variables used for job matching will need to be collected through other channels – for instance, at the point of registration on the MIS platform, or by extending the obligation to register with DYPA to MIS beneficiaries who declare to be employed at registration for GMI but whose household income falls below the MIS eligibility threshold.

Regardless of these governance choices, the web services provided by the Interoperability Center (KED) of the Ministry of Digital Governance offer a robust infrastructure for data exchange, and their use could be scaled up beyond current applications. At present, basic variables – such as gender, age and education – are collected separately by multiple institutions, often using different definitions or formats. This can lead to inconsistencies across registries and undermine the reliability of administrative data. Designating a single institution as responsible for collecting and updating these core variables and ensuring that other institutions access them as needed web services, would both reduce errors and significantly improve data quality, while also support compliance with the GDPR “once-only” principle of data collection, by limiting the need for multiple bodies to repeatedly collect and store the same personal information. This principle is increasingly common across OECD countries, including for example Belgium, Austria and the Netherlands (OECD, 2023^[9]). In doing so, it is crucial to ensure that all data exchanges are lawful by establishing appropriate data exchange agreements between the institution hosting the data underpinning the tool and the institutions that own the source data (Box 6.1).

Box 6.1. In Greece, the legal basis for data use in the job matching tool is grounded in the national legislation, the General Data Protection Regulation (GDPR), and the EU AI Act

Regarding the allocation of responsibilities under the GDPR, DYPA should assume the role of the Data Controller for the new Job Matching Tool. This is consistent with DYPA's statutory mandate to provide labour market services and prevents the administrative complexity and diluted accountability associated with the alternative of joint controllership arrangements.

The initial collection of administrative data in the context of the operation of other databases is lawfully grounded in the performance of tasks of public interest. Yet, a systematic reuse and linkage of these datasets for an AI-enabled tool presents legal uncertainties under current frameworks. In particular:

- Reliance on the “further processing” compatibility mechanisms of Article 6(4) GDPR is insufficient.

- Existing national provisions in Law 4 624/2019 do not encompass the systematic reuse of data in the context of operation of the Job Matching Tool.
- Consequently, it is strongly advised that a specific legislative provision be adopted to provide a clear legal basis, define administrative procedures and specify technical and organisational safeguards, in light of Articles 6(1)(e) and 9(2)(g) GDPR.

As the Job Matching Tool retains human oversight, it does not constitute “solely” automated decision making under Article 22 GDPR. However, transparency obligations remain applicable, requiring that beneficiaries be informed of the tool’s role and provided with meaningful explanations regarding its outputs.

It is not yet possible to determine with certainty the extent to which the Job Matching Tool will make use of AI techniques within the meaning of the EU AI Act. The final qualification of the tool will depend on the concrete design and implementation choices to be made by the Greek authorities after the end of this project. To the extent that the Job Matching Tool fulfils the relevant conditions laid down in the EU AI Act, further compliance obligations would arise from the regulation.

- More specifically, the Job Matching Tool has a potential to be classified to be a high-risk tool according to the EU AI Act and the European Data Governance Act (DGA). The Job Matching Tool does not assess eligibility for social benefits (which would trigger high-risk status under Annex III, 5a) in its current high-level design proposed in the project. However, it may be classified as high-risk under Annex III, 4a if its profiling functionalities exert a substantive influence on recruitment and employment outcomes.
- If the new tool will be classified as high-risk, the competent public authority acting as deployer would be required to comply with the applicable obligations under the EU AI Act and the corresponding national implementation framework established by Law 5 321/2026. These include, where applicable, conducting a Fundamental Rights Impact Assessment prior to deployment, ensuring effective human oversight and appropriate quality of input data, following the provider’s instructions for use and maintaining system logs.

6.4.2. In Belgium, five data categories can support a digital job matching tool, but stronger interoperability and more consistent coding are needed for efficient, near real-time data exchange

Based on the analysis, the key recommendations for Belgium include:

- The job matching tool should integrate information from both CPAS/OCMW and regional PES systems, combining CPAS data on education, household circumstances and integration pathways with PES profiling data on occupations, skills and work preferences, and with employment histories from ONSS/RSZ and Sigedis.
- Demographic variables (such as age, gender, nationality and household composition) should be used for monitoring and evaluation rather than for matching, in order to detect potential biases in algorithmic recommendations and ensure fairness and transparency.
- Belgium’s CBSS interoperability infrastructure could be further used to support co-ordination among institutions, helping CPAS/OCMW, PES, ONSS/RSZ and Sigedis exchange data in secure, timely and standardised ways. Strengthening this co-operation would help reduce duplication and promote greater consistency in core variables across registries.
- Federal actors could encourage closer alignment around common occupational and skills taxonomies (such as ESCO/ISCO) across CPAS/OCMW and PES systems. Supporting such harmonisation efforts would enhance coherence in how skills and occupations are recorded,

reduce coding inconsistencies, and make it easier to match competencies to vacancies across regions.

- Information on employment barriers could be made more comparable across institutions, for example by promoting the use of shared tick-box categories in CPAS and PES intake forms (e.g. childcare constraints, transport availability, health limitations). Clarifying and co-ordinating these definitions through a common framework would improve the consistency of these variables and their usefulness for job matching tools.

Belgium's administrative data environment offers strong foundations for developing a job matching tool for MIS beneficiaries, but its architecture and governance require several strategic choices. Responsibility for beneficiary data is shared across institutions. CPAS/OCMW centres, which administer social assistance, hold detailed case information, often stored in Nova PRIMA/Nova+. These records cover education, qualifications, household circumstances and participation in integration pathways. Regional PES (VDAB, Le Forem, Actiris and ADG) collect more systematic labour market information when individuals register as jobseekers, including their work history, competencies and preferred occupations.

A key governance decision concerns institutional ownership of the tool. If the intended beneficiaries are social assistance recipients who are already registered with a regional PES, regional PES databases could form the primary backbone, given that these data are collected specifically to support labour market integration pathways. However, not all MIS beneficiaries are required to register with a PES, meaning that relying exclusively on PES data may exclude part of the target group. In that case, CPAS/OCMW systems would need to provide the additional variables required for matching, such as occupations, skills and work preferences.

Another strategic question concerns how information from different systems should be integrated. Belgium already has robust interoperability through the CBSS, which connects the federal population register, ONSS/RSZ employment records (via DIMONA and DmfA), Sigedis career data and CPAS/OCMW case files. CPAS/OCMW can already retrieve verified career histories and benefit information through CBSS services. However, basic variables such as education, skills and availability are still collected separately by CPAS/OCMW and each PES, often using different formats. Assigning clear responsibility for maintaining core beneficiary variables and ensuring they are reused by other bodies through CBSS exchanges rather than recollected, would reduce duplication and improve consistency.

Aligning data architecture with governance decisions is therefore essential. If Belgium aims for a tool that covers all RIS beneficiaries, then structured data would need to flow reliably from CPAS to PES systems and vice versa, using common definitions embedded in Nova PRIMA and PES profiling tools. If instead the tool focusses only on beneficiaries engaged with PES services, then PES systems could remain the main data hub, with CPAS providing only selected updates. In both cases, clear data-exchange agreements for sharing are required to ensure compliance with GDPR and to uphold the principles of data minimisation and proportionality (Box 6.2).

Box 6.2. In Belgium, the use of data in an AI-powered job matching tool should be governed by Belgian and EU data protection laws

The development and use of an AI-powered job matching tool to support the matching of MIS beneficiaries with labour demand should take into consideration key legal considerations under Belgian and EU data protection laws. These key considerations include: 1) the role of the institutions under the GDPR; 2) the legal basis for sharing and using personal data to develop and use the Tool; 3) the need for a data protection impact assessment; 4) the use of subcontractors; 5) the potential application of automated decision making.

Regarding the **role of institutions under the GDPR**, each institution involved in the development and use of the job matching tool must assess its role under the GDPR to ensure GDPR compliance. Institutions that directly influence the purpose or means of the job matching tool act as a controller. These institutions should determine if they qualify as joint controllers (they determine the purpose or means jointly with other controllers) or separate controllers (they determine the purpose or means separately from other controllers). In case of joint controllership, a joint controller agreement is required between all joint controllers. In case of separate controllership, requirements vary depending on whether the involved institutions sharing personal data qualify as public authorities or social security institutions. If they qualify as public authorities, a protocol between the separate controllers is required. However, if they qualify as social security institutions, a prior deliberation by the social security and health chamber of the Information Security Committee – instead of a protocol – is required.

Unlike controllers, institutions that solely link and provide data without directly influencing the purpose or means of the job matching tool act as a processor. In such cases, a data processing agreement is required. Considering the planned set-up of the job matching tool, however, no institution seems to qualify as a processor. Importantly, a comprehensive assessment of the role of each institution would require knowledge of practical aspects of the implementation of the job matching tool and must therefore be conducted once these practical aspects have been decided.

With respect to the **legal basis for sharing and using personal data** to develop and use the job matching tool, each involved institution already undertakes some data processing to perform its current activities (i.e. the initial processing activities). In addition to these activities, each institution will also undertake additional processing activities in the context of the Tool. For the purpose of this assessment, it is useful to distinguish between the additional activities involved in the *development* and those involved in the *use* of the job matching tool. Under the GDPR, each of these processing activities must rely on a legal basis. To determine the legal basis required, it must first be determined whether the processing activities in the context of the Tool have a different purpose than the initial processing activities. If the purpose is the same, then the processing activities in the context of the job matching tool can rely on the same legal basis as the initial processing activities. Based on a preliminary assessment, in Belgium this would be the case for the use of the job matching tool by certain institutions. If the purpose is different, a compatibility test is required to determine whether the processing activities in the context of the job matching tool are compatible with the initial processing purpose. Based on a preliminary assessment, in Belgium this would be the case for the use of the job matching tool by certain institutions, and for the development of the job matching tool by all institutions. In case the compatibility test succeeds, the processing activities in the context of the job matching tool can rely on the same legal basis as the initial processing activities. Otherwise, the processing activities in the context of the job matching tool must rely on a separate legal basis. In this case, it is likely that a legislative intervention amending the relevant laws will be required to enable the institutions concerned to undertake the processing activities in the context of the job matching tool. A comprehensive assessment of the legal basis or the performance of the compatibility tests would require knowledge of practical aspects of the implementation of the job matching tool and must therefore be conducted once these practical aspects have been decided.

Each institution acting as a controller must perform a **data protection impact assessment** for both the development and use of the job matching tool. If subcontractors (i.e. service providers) will be involved in developing and maintaining the job matching tool's digital infrastructure, they will process personal data on behalf of the institution(s) and therefore qualify as processors under the GDPR. To ensure compliance with Belgian law, the following considerations must be taken into account. First, a data processing agreement must be concluded between each processor and the parties that engage or designate them (likely to be one or more of the leading institutions). Second, the service providers must appoint a data protection officer. Third, public procurement procedures must be followed.

Regarding the **potential application of automated decision making**, if the job matching tool enables decision making by technological means without human involvement (i.e. automated decision making) or enables the use of personal data to evaluate certain personal aspects relating to a natural person – particularly to analyse or predict aspects concerning that natural person's performance at work or economic situation (i.e. profiling) – then explicit consent from each data subject for whom the job matching tool provides job-matching advice or recommendations may be required, or the national legal framework may need to be amended to allow for the processing. To ensure the job matching tool's practical feasibility, its design and operation should be structured so as not to constitute automated decision making or profiling. Practical measures may include:

- Ensuring that the job matching tool interface provides a warning that the output should merely complement rather than replace professional judgement, should be double-checked by the user and should never be trusted as the sole basis for taking action,
- Ensuring that the output can always be overridden by the user,
- Educating and training users of the job matching tool to prevent users to rely heavily on the output delivered (e.g. regular trainings, access to original data sources for manual recommendations), and
- Adopting a job matching tool policy prohibiting relying solely on the output delivered by the job matching tool for taking action.

6.4.3. In Greece, strong existing data can support the career recommendation tool, though further improvements in data quality and coverage are needed

As outlined in Chapter 5, the career recommendation tool is intended to form an additional pillar complementing the job matching tool (or a standalone career recommendation tool). Based on this analysis, the key recommendations for Greece include:

- Employment data from ERGANI could serve as the backbone of the data underpinning the career recommendation tool. The quality of data on hirings, contract changes and contract ends could be improved through further digitalisation of data collection. Ongoing efforts, including the transition to ERGANI II, offer important opportunities in this regard.
- M.E.K.Y. already uses ERGANI and job vacancy data within its Diagnostic Mechanism to monitor labour market developments and generate indicators of labour demand across occupations and industries. These indicators could be integrated into the career recommendation tool.
- Enhancing DYPA data on ALMP participation by including key programme parameters would help provide a more comprehensive picture of individuals' career trajectories.
- Data in DYPA's IIS and Diofantos could be used to map available ALMPs and feed directly into the tool to recommend suitable ALMPs to MIS beneficiaries.
- Greece could consider developing a comprehensive mapping of relevant social services to better support MIS beneficiaries, which could be integrated into the tool to direct users towards social services that are complementary to employment services.

The same strategic considerations regarding institutional ownership of the job matching tool also apply to the career recommendation tool. In particular, the choice of institutional ownership will determine which data exchange agreements are required and what data sharing services need to be put in place or expanded. Given that the backbone of the data underpinning the career recommendation tool consists of ERGANI data augmented with information on ALMP participation held by DYPA and Diofantos, DYPA already owns most of the data required and could expand its existing web services with ERGANI to retrieve any additional information needed. In this respect, it is important to ensure that all data exchanges are

lawful by establishing appropriate data exchange agreements between the institution hosting the data underpinning the tool and the institutions that own the source data (Box 6.3).

Box 6.3. In Greece, key implications for the career recommendations tool stem from the Greek legislation, the General Data Protection Regulation (GDPR) and the EU AI Act

The career recommendation tool is conceived as part of a broader, integrated and AI-enabled job matching platform, developed as an additional pillar extending the functionality of the envisaged job matching tool. At the same time, an alternative design scenario is envisaged, under which the tool would be developed as a separate, standalone, digital instrument. Notwithstanding differences in technical configuration, both scenarios envisage interoperability with existing systems and the use of data drawn from existing databases, including, as appropriate, data from the MIS (GMI) platform, DYPA systems, ERGANI and Diofantos.

A key requirement under the GDPR is to clearly define the roles and responsibilities of the different actors involved in processing personal data. These roles determine who is responsible for ensuring compliance with data protection rules and depend on how each actor uses and controls the data. In this context, the present assessment takes the view that, irrespective of which of the two envisaged design scenarios is ultimately adopted, DYPA should assume the role of controller for the operation of the career recommendation tool. This applies both where the tool is developed as part of a broader integrated platform and where it is developed as a separate, but interoperable, digital instrument. Such allocation is consistent with DYPA's statutory mandate in the field of activation, counselling, employability support, labour market integration and training-related measures. It also avoids the administrative complexity and dilution of accountability often associated with joint controllership arrangements. The other authorities involved, including the Ministry of Social Cohesion and Family and the Ministry of Labour and Social Security, would in principle remain independent controllers in relation to their respective systems and processing activities.

Beyond the allocation of roles, the use of personal data by the tool raises several important legal questions under the GDPR, including the legal basis for processing, the reuse of existing data, data sharing between authorities and the safeguards required when linking different datasets. In simple terms, the GDPR allows personal data that were originally collected for one purpose to be reused for a different purpose only under certain conditions. These conditions require, among other things, that the new use is compatible with the original purpose for which the data were collected and that appropriate safeguards are in place. In the case of the career recommendation tool, the intended use of data – namely combining and analysing information from multiple public databases for the enabling of all the tools functionalities – goes beyond what these existing rules provide for. In particular, the systematic reuse and linkage of data across different systems for this new purpose cannot be safely based on the existing “further processing” mechanism alone, while existing national provisions do not encompass the systematic reuse of data in the context of operation of the career recommendation tool. For this reason, it is strongly advised that a specific legislative provision be adopted to provide a clear legal basis, define administrative procedures and specify technical and organisational safeguards, also taking into account any legislative provision designed for the operation of the job matching tool.

With regard to automated decision making, the career recommendation tool, as currently envisaged, does not constitute a system of solely automated decision making, since its outputs are intended to remain recommendatory and final decisions relating to participation in Active Labour Market Policies (ALMPs) and referrals to other services remain subject to human assessment.

As for the EU AI Act (the EU's regulatory framework governing artificial intelligence systems), it is not yet possible to determine with certainty the extent to which the career recommendation tool will make

use of AI techniques within the meaning of the EU AI Act. The final qualification of the tool will depend on concrete design and implementation choices. To the extent that the career recommendation tool fulfils the relevant conditions laid down in the AI Act, further compliance obligations would arise from the regulation.⁴

- System classification – High-risk potential: while the career recommendation tool does not, in its currently envisaged design, appear to assess eligibility for the MIS scheme or other essential public assistance benefits and services, and therefore does not at this stage appear to fall within Annex III, point 5(a), certain of its functionalities may potentially fall within Annex III, point 4(a), to the extent that they involve profiling and materially influence access to employment, training, activation measures or related opportunities. In addition, certain functionalities of the tool may also raise considerations under Annex III, point 3(a) (education and vocational training), if and to the extent that its outputs are used to determine or significantly influence access to, or assignment to, educational programmes;
- Compliance obligations: if classified as high-risk, the competent public authority acting as deployer would be required to comply with specific obligations, including the establishment of effective human oversight, the use of high-quality input data, adherence (if applicable) to the provider's instructions for use, and the maintenance of system logs.

6.4.4. Belgium has a strong data foundation for a career recommendation tool, but greater interoperability and consistency are needed to overcome fragmentation

Given that most of the data requirements are common to both the career recommendation tool and the job matching tool, the recommendations for job matching also largely apply to the career recommendation. Based on the analysis, the key recommendations for Belgium include:

- Federal social security data (ONSS/RSZ and Sigedis) can form the backbone of the career recommendation tool, enabling the construction of detailed employment trajectories and occupational transitions relevant for MIS beneficiaries.
- Aggregated labour market intelligence produced by regional PES (VDAB, Le Forem, Actiris and ADG) – such as shortage occupation lists and sectoral trends – should be integrated into the tool to ensure recommended pathways are aligned with sustainable labour market demand.
- Linking employment histories with data on ALMP participation, including training and public works programmes (e.g. Article 60), is essential to reflect the actual career pathways of MIS beneficiaries and improve the relevance of recommendations.
- Up-to-date information on available ALMPs, particularly training programmes, should be systematically mapped and integrated, allowing the tool to recommend combined “occupation + training” pathways based on identified skill gaps.
- Greater standardisation and structuring of skills and employability data collected by CPAS/OCMW, and better alignment with PES profiling systems, would strengthen personalisation and facilitate data reuse through the CBSS infrastructure.
- Belgium's CBSS interoperability framework provides a strong foundation for data exchange, but clearer governance and wider use of common classifications for skills and barriers would further enhance data quality for career recommendation purposes.

The choice of institutional ownership and governance arrangements for the career recommendation tool will be closely linked to those for the job-matching tool. If the tool is intended to cover all MIS beneficiaries, including those not registered with a PES, CPAS/OCMW systems would need to play a central role alongside regional PES databases.

Belgium's CBSS infrastructure already provides secure, real-time data exchange between CPAS, PES and social-security institutions. However, differences in how similar variables (e.g. skills, employability, constraints) are recorded across institutions limit the effective reuse of data. Clarifying responsibilities for maintaining core variables and promoting systematic reuse through CBSS exchanges – rather than repeated collection – would improve consistency and data quality, in line with the “once-only” principle widely promoted across OECD countries. In this respect, it is important to ensure that all respective data exchanges are lawful (Box 6.4).

Box 6.4. Building and using an AI-powered career recommendation tool in Belgium should rely on key data protection considerations

As the career recommendation tool is structured in a similar way to the job matching Tool, most elements discussed for this tool (see Box 6.2) also apply to the career recommendation tool.

1. Findings that apply to both tools

Both tools have similar governance arrangements, so the roles of the participating organisations under the GDPR are also similar. In addition, several other considerations apply to both tools, including: whether a Data Protection Impact Assessment (DPIA) is required under the GDPR, whether and how the EU AI Act applies, including, where the tools qualify as high-risk AI systems, requirements concerning Fundamental Rights Impact Assessments and other obligations arising from this classification; how to manage outside contractors who help build or run the tool; whether the AI Act (a new law regulating artificial intelligence) applies; and the possible effects of the EU's simplification proposal on digital laws.

Because both tools are designed to help people find work or access social support, similar considerations apply regarding the legal grounds for using personal data and whether a “compatibility test” is needed. A compatibility test checks whether using data for a new purpose is compatible with the original purpose the data was collected for. Data subject profiling, i.e. building a profile of a person based on their data, will likely be a core feature of both tools.

2. Findings specific to the career recommendation tool

Unlike the job matching tool, the career recommendation tool is unlikely to affect MIS beneficiaries' access to a job. This is because the career recommendation tool only provides non-binding suggestions about possible career paths, training courses, or social and psychological support services, it does not make decisions or create an output that directly control or influence whether a MIS beneficiary gets a job.

Because the career recommendation tool may be used directly by individuals (such as MIS beneficiaries) without professional guidance, extra safeguards should be built in. For example, users should have clear contact details for staff at the relevant organisations if they have questions about the career recommendation tool's output or how it works. There should also be plain guidance explaining that the career recommendation tool's suggestions may not always be accurate or complete.

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Notes

¹ The OECD AI Principles were initially adopted by Member countries in May 2019 as part of the OECD Council Recommendation on Artificial Intelligence and updated in May 2024. The Recommendation sets out five values-based principles for the responsible stewardship of trustworthy AI, alongside related recommendations for governments to include in their national policies and international co-operation in this domain (OECD, n.d.^[10]).

² SMS (Short Message Service): interaction through sending and receiving text messages; USSD (Unstructured Supplementary Service Data): a simple text-based menu used on basic mobile phones (e.g. dialling short codes like *123#); IVR (Interactive Voice Response): a phone-based system where users navigate menus or receive information through automated voice prompts.

³ An extensive set of Key Performance Indicators (KPIs) for the AI-powered matching and career recommendation platform has been developed as part of the project and can be accessed on the [project's webpage](#).

⁴ As the tool's technical specifications are further developed and its functionalities evolve, it may be appropriate to update the analysis to reflect its final classification as an AI system.

AI and Digitalisation for Employment Support in Belgium and Greece

New Tools to Support Minimum Income Beneficiaries

Belgium and Greece are aiming to improve job matching and career progression of groups further from the labour market, as disparities persist despite improved labour market indicators and significant policy efforts. This report assesses the current situation in the two countries, focusing on the employment outcomes and career pathways of Minimum Income Scheme (MIS) beneficiaries. Building on the analysis of linked administrative data and good practices from other EU and OECD Public Employment Services, the report proposes concepts for digital tools enhanced by AI to support job matching and career progression of MIS beneficiaries. It also provides recommendations on the data that can be used to amplify the benefits of such tools. This report is the twenty-third in the OECD's Connecting People with Jobs series.



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