



Industry 4.0 for the future
of **manufacturing** in the EU



Employer-based Position Paper



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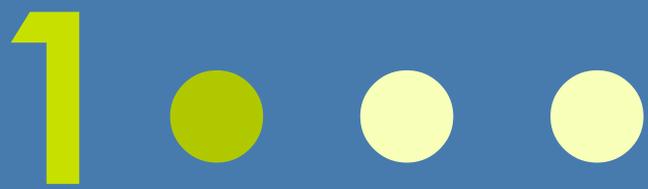
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Pillars

1 Awareness

2 Skills & Training

3 Industrial relations
& Social dialogue



Awareness

“Knowing opportunities and risks to build a new world of work”

Industry 4.0 is an ongoing paradigm that has to be established in each country, region, and company, adapting with the sectoral, economic, social, institutional and geographic context. In order to help its diffusion, raising awareness about the main opportunities and risks is a necessary step



1 Creation and dissemination of public-private partnerships to raise awareness leading to Industry 4.0

The establishment of public and private entities that should guide companies through Industry 4.0 is a fundamental process. This should take place in two ways: first, by raising awareness (especially among SMEs) about the Industry 4.0 opportunities; secondly by giving technical support to implement 4.0 technologies. In this sense, it is fundamental to share best practices, also at European level



2 Use of every channel possible to raise awareness about Industry 4.0

Raising awareness about Industry 4.0 is also dependent on adequate communication from institutions. This communication could be carried out through a multitude of channels, either conventional or not, such as ad hoc fairs, stands, social networks and so on and has to concern the local and the national level



3 Introduction of a holistic view of Industry 4.0

The digital transformation taking place today is not only about technology, but it also concerns people, innovation, skills, relations, and networks. An awareness action on Industry 4.0 has to be carried forward through a holistic approach in order not to limit this process to one component, thus risking to affect its full development that will create problems and shortcomings in the future



Actions from the company side

- To increase awareness in regional and local employers' associations about Industry 4.0
- To create and enforce local and national networks in order to help companies (especially SMEs) to understand their opportunities in the digital transformation
- To produce and disseminate simple tools (video, infographs, websites) showing and explaining that Industry 4.0 is not a buzzword but an actual catalyst for change



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Skills & Training

“No future in manufacturing without workers of the future”

The complex and evolving scenario of digitalization requires tools and guarantees in order to let companies and workers face the challenges of innovation. Skills and training seem the best protection to manage and benefit from the Industry 4.0 paradigm



1 Creating ecosystems and networks comprising education institutions and companies

In the Industry 4.0 context, the creation of partnerships between second and third level educational institutions and employers is essential: the aim of these partnerships is to plan courses (especially in the STEM field) providing skills that can be used in the market so as to tackle the skills mismatch. The appropriate level at which these partnerships can be developed is the local one, thus giving rise to a network that ensures employment and growth



2 Increasing VET and on the job training for new technical skills

In the Industry 4.0 context, it is essential to link training to work. The speed at which technologies, processes and products develop needs to be responded to with new skills. This means fostering vocational training for young people not only in secondary schools but also in higher education institutions, for example through industrial doctorates. The need for continuous skills updating particularly concerns those already in the labour market and involves boosting training (i.e. with digital alphabetization), with the latter that has to be considered not only as an individual right of the worker but also an advantage and an investment for both worker and company



3 Beyond technical skills: stepping up digital competences and soft skills

Learning how to master digital devices and use them in teaching activities should concern all levels of education, starting from the everyday use of digital skills (smartphone, tablets, social networks) and from conceptualizing them and making them useful tools in a professional context. In the same way, soft skills should also be taught, as they are crucial to the Industry 4.0 context. This should be done through new didactic models and experiences, developing new national school programs and putting forward new measure to retrain teaching staff



Actions from the company side

- To increase the quality of training focusing on parallel programs of R&D and skills transfer considering them not as a cost but as an investment
- To enforce employment contracts and education paradigms that can help to focus on training like VET, apprenticeships and industrial doctorates
- To create and enforce networks with schools, universities and research centers in order to keep training schemes updated



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Industrial relations & Social dialogue

“Building together a greater new community”

Working together is a priority of the factory of the future. Complexity requires cooperation and sharing of responsibilities. This can be reached both through industrial relations and social dialogue and personnel relations using innovative contents and schemes



1 Bring the contract near the value: enforce the bargaining system

Industry 4.0 will completely redefine the processes of value creation and the supply chain. This will create more complex environments, which are very different from each other, though they will be integrated through digital networks. In order to enhance this complexity, we need to give value to local and company level contracts, linking wages to productivity and real added value. In this way, it will be possible to reinvest the gains from company-level productivity in - among others - new training that, together with wages, can represent a new way to conceive protection in the labour market



2 Skills as the new bargaining content

Since new technical and soft skills are the real contents of the digital transformation and the way to produce innovation, they are a resource for the company and workers. For this reason, skills and training have to become central elements of negotiations in collective agreements. Developing more skills is an advantage for workers as a protection in transitional labour markets and a way to increase their competitiveness on the labour market especially with new technologies, processes and products. Gaining more skills is also an advantage for companies, because having more qualified people means better innovation, productivity and competitiveness



3 New inclusive personnel relations

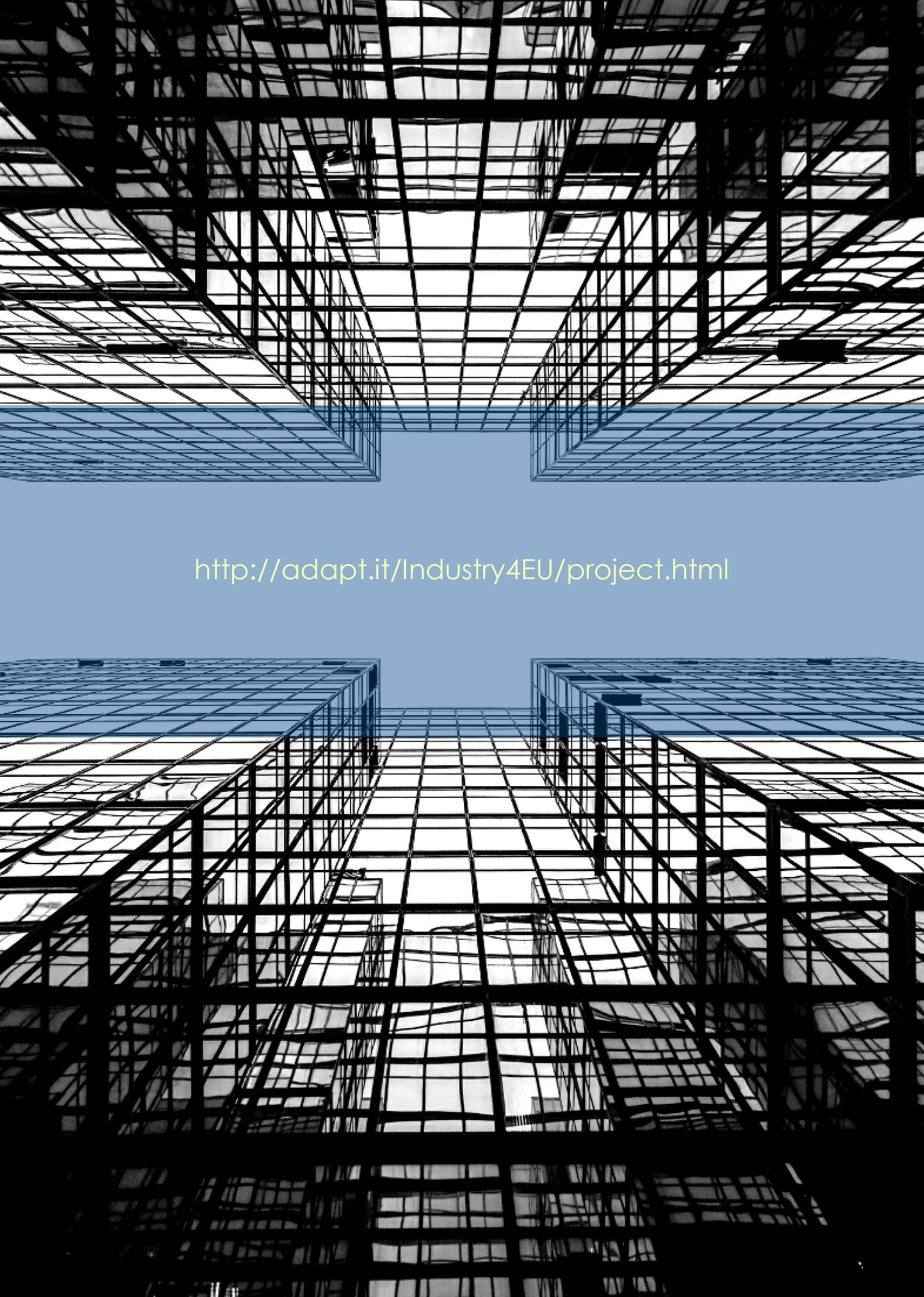
It is no longer possible to think of personnel relations as something in conflict with trade union relations. The complexity of the 4.0 environment requires different forms of social dialogue and industrial relations both collective and individual. Collective bargaining is a central part of industrial relations but aspects such training, new high-performance working practices, flexible hours and locations (i.e. smart working) have to be developed also through new personnel relations practices recognized by the company and workers and where the shared goal is more productivity and competitiveness



Actions from the company side

- To encourage companies to negotiate at company level focusing on inclusive agreements that can really boost productivity together with wages
- To introduce skills and training in new collective agreements
- To create involvement and information procedures through which strategies about work organizations, training programs and other issues can be discussed, contributing to the development of Industry 4.0





<http://adapt.it/Industry4EU/project.html>