RESEARCH REPORT

Eurofound

Future of manufacturing in Europe

Reshoring in Europe: Overview 2015–2018

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European Foundation for the Improvement of Living and Working Conditions

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The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency, whose role is to provide knowledge in the area of social, employment and work-related policies. Eurofound was established in 1975 by Council Regulation (EEC) No. 1365/75 to contribute to the planning and design of better living and working conditions in Europe.

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More information on the FOME project, including available and forthcoming publications and events and relevant data, can be found on the FOME page of the Eurofound website.

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Executive summary

Introduction

The European Reshoring Monitor is a collaborative project between Eurofound and a consortium of Italian universities (Bologna, Catania, L'Aquila and Udine) aiming to monitor reshoring cases in Europe from 2014 onwards.

The 2018 annual report presents evidence concerning the reshoring of manufacturing and other value chain activities in the EU and the European Free Trade Association (EFTA) countries. Specifically, this report examines the phenomenon by analysing reshoring cases and policies, and the related literature.

In this report, the findings from 2018 will be presented and compared with those of earlier years.

In the course of the monitoring, 253 reshoring cases were recorded, 46 of which took place in 2018. Large differences in the number of cases were found across the years, with about 60% of all cases taking place in 2016 and 2017.

The reshoring cases were identified either with the support of M-Brain, a digital media monitoring service (113 cases out of a total of 253) or directly through the activity of the research team.

Key findings

As far as the number of cases per year is concerned, there has been an upward trend since 2014, but a drop in 2018. However, it should be noted that there is often a time lag between when firms decide to reshore and when the news is published in the media. Therefore, the total number of 2018 cases is likely to increase in the first months of 2019.

In 2018, the two countries with the highest number of cases were Denmark and Sweden (seven and six cases respectively). France, the United Kingdom and Italy (five, four and four cases respectively) remain the three most important Member States in terms of evidence of reshoring over the entire period of the project. In terms of firm size, large companies account for the majority of cases (around 60% of all cases).

Although reshoring initiatives take place in a wide range of sectors from the Nomenclature statistique des activités économiques dans la Communauté européenne (NACE) classification system, manufacturing cases predominate (around 85% of the total). Within manufacturing, differences among sub-sectors are evident, with the wearing apparel sector (around 11%) remaining the most affected sector, even if levels of reshoring activity in this sector appear to have declined in the period up to February 2019.

As far as the motivations for reshoring decisions are concerned, the two most frequent reasons given between 2015 and 2018 were 'global reorganisation of the company' and 'delivery times'. However, in 2018 the most cited motivation was 'poor quality of offshored production' (nine instances), while the 'Made in' effect totally disappeared as a motivation.

The research team attempted to estimate the job gains resulting from the reshoring decisions – despite the scarcity of data on this issue – indicating the creation of 12,840 new jobs during the study period.

Policy context

The economic impact of reshoring, on employment especially, has become highly prominent in political debate in Europe and the United States in particular. It is argued that reshoring has been largely driven by industrial policies aiming to 'bring jobs back home'. Apart from reshoring cases, the European Reshoring Monitor also tracks policies aiming to support European companies in reshoring their production. In this respect, evidence was found in France, Germany, Italy, the Netherlands and the United Kingdom (UK). However, there is a lack of research on the real effects of such policies. In this respect, a recent study about the South Korean government's experience of promoting the reshoring phenomenon highlighted two main issues: the restrictiveness of the adopted criteria (i.e. interruption of all manufacturing relationships with the host country) and a disproportionate focus on large enterprises.

Reshoring literature

As far as academic research literature is concerned, the topic of reshoring has continued to attract attention in 2018. A total of 27 Elsevier Scopus indexed journal articles and book chapters were published in 2017, while 23 were published in the first nine months of 2018. Motivations for reshoring remain the major focus of research, but growing attention is being given to the decision-making and implementation processes and to barriers and outcomes of reshoring strategies (at the firm level).

Introduction

In recent years, global political and economic changes, the thinning of location advantages in some offshore countries and the growing awareness of the 'total cost' of offshoring have driven many companies to rethink the location of their international value chains and to move their manufacturing activities to their home country or to countries nearby. This phenomenon is often referred to as 'reshoring', although other labels have been used, such as 'backshoring' and 'inshoring'.

Interest in reshoring has been growing, both among scholars and policymakers. At the political level, some governments are striving to revitalise manufacturing and increase employment by promoting reshoring. Monitoring the evolution, magnitude and motivations of reshoring is of paramount importance in understanding the drivers of reshoring decisions, in learning the processes through which reshoring is implemented and in evaluating the role of policy in encouraging the phenomenon.

The European Reshoring Monitor is a Eurofound project which is part of a multi-annual research project on the future of manufacturing in Europe, delegated to Eurofound by the European Commission (DG GROW, the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs). The project aims to identify, analyse and summarise evidence on the reshoring of manufacturing and other value chain activities in the EU and EFTA countries. It includes reshoring cases, relevant research articles/reports and policy initiatives. This project is based on collaboration between Eurofound and the Uni-CLUB MoRe Reshoring Research Group, a team of management engineering scholars belonging to four Italian universities (Bologna, Catania, L'Aquila and Udine) with an active interest in tracking reshoring activities.

The project collects information on individual reshoring cases from several media sources (newspapers, specialised press, scientific literature, practitioner literature) and organises it into a secured-access, regularly updated online database. It also develops and updates an online database of reference material on reshoring (i.e. research articles, consultancy reports, policy reports, key media articles, policy initiatives at regional, national or EU level or analysis based on quantitative reshoring data). As of February 2019, the European Reshoring Monitor contains 253 reshoring cases announced in the media from 2014 to 2018 and 68 reshoring papers published by both scholars and practitioners. All of this content is maintained and available to the public (see Eurofound, n.d.).

Within the scope of this initiative, the following cases of reshoring are considered.

- European companies that reshore value chain activities previously offshored to another country to their home country (within the EU and EFTA areas): for example, manufacturing by a German firm previously offshored to China or to France and now returning to Germany. This phenomenon is labelled 'backshoring'.
- European companies that reshore value chain activities previously offshored to a non-European country to any EU and EFTA countries other than their home country: for example, manufacturing by a German firm previously offshored to China and now relocating to Italy. This phenomenon is labelled 'nearshoring'.
- Companies headquartered outside Europe and EFTA countries that move value chain activities previously offshored to a non-European country to Europe: for example, manufacturing by a company previously located in the United States (US) offshored to China and now relocating to France. This phenomenon is labelled 'other reshoring strategies'.

This report is organised as follows. First, the methodology adopted to collect data and the project website are presented. Second, findings from recent scholarly literature on reshoring are summarised. Third, the policy initiatives adopted by European countries are discussed. Fourth, the 253 reshoring cases collected through the project are summarised and a discussion of the findings is provided, including a comparison of cases from 2018 with those from previous years. Finally, conclusions are outlined regarding the current state of reshoring in Europe.

Methodology

The monitoring activities of the European Reshoring Monitor cover three main areas: media monitoring of reshoring cases, relevant research articles/reports and policy initiatives.

Media monitoring. The first monitoring activity aims at finding evidence of reshoring decisions implemented by EU companies and this process involves two steps. The *first step* encompasses the screening of a wide set of media sources (i.e. more than 7,500 press releases, major daily national newspapers, local papers, specialist trade journals, broadcaster websites and news agencies) in different languages of the EU and the identification of reshoring decisions. This stage is mainly carried out by M-Brain (media monitoring specialists) and the research group. M-Brain identifies possible eligible reshoring cases through a combination of human intelligence, keyword search and tagging, using their digital editorial platform and team of analysts. M-Brain searches thousands of media sources in multiple languages continuously for news stories on global manufacturing activity and provides abstracts of news on specific themes in English. These abstracts are coded using M-Brain's in-house taxonomy

(e.g. identifying cases of mergers and acquisitions, the countries involved, industrial relations, new plants, expansion plans, etc.). The report profile also looks for abstracts containing the keywords 'reshoring' and 'relocation' in addition to the in-house taxonomy. A basic multilanguage glossary (see Annex A) has been built of the main phrases and search keywords. A reshoring report profile uses M-Brain tagging to identify news items on a weekly basis. The resulting report is then read and edited by M-Brain to provide a weekly reshoring report delivered to the project consortium. Each abstract includes as much relevant information (e.g. motivations for reshoring, year of any previously implemented offshoring decisions) as is available in the original article and a weblink (if available) for each piece of news.

Performed by the project consortium, the *second step* comprises the following points.

- The careful selection of reshoring cases among those sent by M-Brain and information searched by the project consortium, based on the project definition of reshoring (see Introduction section).
- The search for any additional information available (e.g. details of the previous offshoring decision, the NACE code for the firm's industry, impact on employment when not provided in the news, etc.). The search is always expanded to sources beyond those covered by M-Brain to get a broader, more detailed view of the case. As one or more cases shortlisted by M-Brain may not relate directly to a reshoring initiative but to a different kind of relocation or restructuring decision, the consortium is interested in collecting that data to verify that the case is suitable for inclusion in the reshoring database.
- The development of the record has to be included in the reshoring cases database. Once the record is completed, it is saved in the database as a draft by a junior member of the research team. The draft proposal of record contents is submitted to a senior researcher on a weekly basis.
- After verification by a senior research member the record is approved and sent to the project quality manager for a quality check, after which time it is published on the database.

To maximise the reshoring cases collected as part of the project, the media monitoring activity was also carried out by the research team through their network of both practitioners and researchers. This effort allowed the project to enlarge the number of reshoring decisions found; more specifically, 140 out of the 253 decisions were found by the research group while the other 113 were identified by M-Brain.

Box 1 below summarises the various methodologies adopted in the current academic literature for studying the reshoring phenomenon.

Box 1: Methodologies used in the study of reshoring

Five main sources of data have been used in empirical research regarding the reshoring phenomenon:

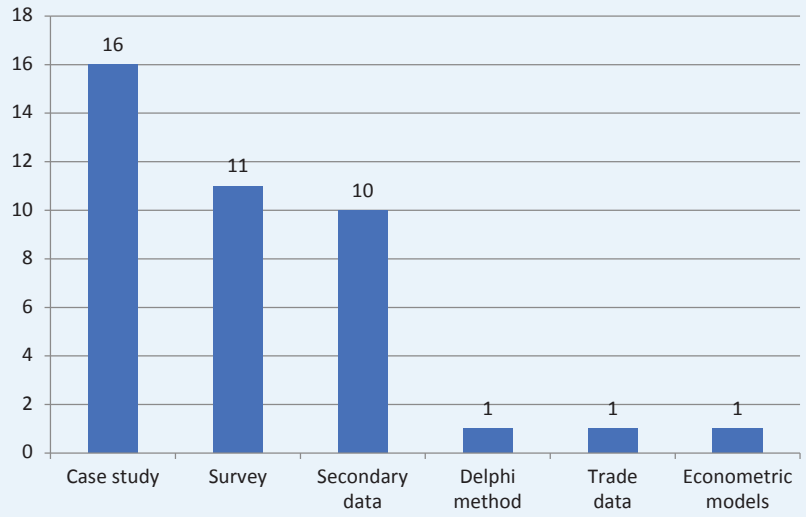
- survey studies
- secondary data
- case studies
- Delphi studies
- trade data

Figure 1 summarises the number of scientific articles and book chapters adopting each approach.

De Backer et al's (2016) study is the only study to use trade data to investigate reshoring. In particular, the authors adopted two indicators: the share of domestic demand served by imports and the geographic distribution of productive resources within multinational companies' networks. The first indicator partially supports the hypothesis of reshoring from eastern Europe towards the UK but not towards other western European countries. At the same time, the data suggest the existence of US companies nearshoring to Mexico. The second indicator shows evidence of the reshoring of US companies as far as flows of capital investment are concerned but does not account for employment effects. Data from European countries are more limited in terms of time span and industries involved in reshoring and do not offer definitive conclusions.

The Delphi method is suitable when addressing opinions as opposed to facts, particularly when addressing complex topics where no clear causal relationship exists to explain the phenomenon. Therefore, it does not permit to quantify the magnitude of the reshoring phenomenon. Within the referred academic literature, only one document (Pal et al, 2018) adopted this methodology since the research aim was the analysis of the impact on the reshoring decision of competitive manufacturing capabilities in high-cost environments.

Figure 1: Breakdown of academic articles by research methodology



Source: *European Reshoring Monitor*

The case study methodology is extremely useful in shedding new light on the following research questions.

- 'What?' – this refers to the specific content of the reshoring decisions (e.g. single product line and/or single production phase vs. entire offshored product lines and/or production processes). This issue is assuming a growing relevance in light of increasing evidence of 'slicing reshoring' (Baraldi et al, 2018).
- 'Why?' – this refers to the motivations/drivers behind the reshoring and their relationship (if any) with the ones that led the company to offshore (Di Mauro et al, 2018).
- 'How?' – this refers to how the firm managed the decision-making and implementation phases of the reshoring decision.

However, the case study methodology does not permit to quantify the magnitude of the phenomenon in a specific geographical area or industry, therefore it is not useful for quantitative purposes.

The two remaining data sources (surveys and secondary data) provide an opportunity to quantify the reshoring phenomenon but differ in terms of the information they provide. More specifically, the survey – the most widespread research methodology among business scholars and consulting companies (De Backer et al, 2016) – enables to collect only information explicitly requested by the questionnaire. Since the response rate is generally inversely related to the length of a questionnaire (a critical factor for successful survey-based research) it is not always possible to collect extensive information on a specific phenomenon. For instance, in the case of reshoring there are very few examples of surveys collecting detailed data on the offshoring phase (e.g. the year of the decision, motivations, governance mode, etc.). However, it is worth noting the recent experience of Nordic countries among them (Heikkilä, Martinsuo et al, 2018; Heikkilä, Nenonen et al, 2018; Johansson et al, 2018; Stentoft et al, 2018). For instance, Johansson and Olhager (2018) estimate that, in Sweden, offshoring destroyed and reshoring created the equivalent of an average of six full-time jobs per single decision. However, since there was a far larger number of offshoring decisions, reshoring decisions (re)created only 56.2% of the jobs destroyed by offshoring.

Moreover, surveys are generally adopted to investigate large or, at most, medium-sized companies since the response rate of small companies is normally very low. Finally, survey studies are generally 'one shot' analyses that capture the magnitude of a phenomenon at a certain moment in time, but they generally lack a longitudinal perspective. In this respect, the only exception in reshoring studies is represented by the European Manufacturing Survey (Kinkel, 2014), which is repeated every two years. Since this survey does not focus on reshoring, information concerning this phenomenon is limited to the following three variables: year of reshoring, firm's industry and size, and reshoring motivations.

Table 1 summarises the main findings emerging from survey-based academic articles.

The secondary data methodology is preferred when the phenomenon to be investigated is new and reliable frameworks for its analysis are not yet available. These characteristics make it difficult to completely capture the phenomenon by means of surveys. These challenges explain the widespread use of secondary data in the reshoring literature (Figure 1). One limitation is that, being based on press news, secondary data may under-represent the extent of the reshoring phenomenon among small and medium enterprises (SMEs); in reality, developments at SME level are rarely covered in the press. Also, the exposure a certain phenomenon (e.g. a decision to relocate) enjoys in the press may depend on

whether the phenomenon is topical in a given period. The secondary data-based methodology has been used, among others, by the Uni-CLUB MoRe Reshoring Research Group (Fratocchi et al, 2014; Ancarani et al, 2015; Fratocchi, Ancarani et al, 2015; Fratocchi, Barbieri et al, 2015; Fratocchi, 2016;) and Cranfield University (2015).

To sum up, the best way of studying the reshoring phenomenon seems to be a combination of different methodologies, given the trade-off between depth (provided by case studies) and breadth (typical of secondary data and surveys) of analysis.

Table 1: Evidence of reshoring from academic articles based on survey-based research

Authors	Year	Country	Period	Firms' size	Surveyed companies	Reshoring companies
Heikkilä et al	2018 a	Finland	2010–2015	employees > 50 ISIC code 10–33	229	30
Heikkilä et al	2018 b	Finland	2010–2015	employees > 50	229	30
		Sweden			373	99
		Denmark		ISIC code 10–33	245	31
Johansson & Olhager	2018	Sweden	2010–2015	employees > 50 ISIC code 10–33	373	99
Fel & Griette	2017	France	No time limit (until summer 2016)	French firms and foreign subsidiaries located in France which offshored in China	270 (not all are French firms)	~80 (40%)
Kinkel	2014	Germany	Every 2 years up to 1997	SMEs and large firms	1,450-1,650 firms for each survey	400/700 companies per year (estimated)
Kinkel & Maloca	2009	Germany	2005–2006	SMEs and large firms	1,663	250
Canham & Hamilton	2013	New Zealand	2001–2011	SMEs and large firms	676	11
Dachs & Zanker	2014	13 European countries	2010–mid 2012	SMEs and large firms	More than 3,500 in 13 countries	~ 140 (4%)
Dachs & Kinkel	2013	9 European countries	Mid 2007–mid 2009	SMEs and large firms	3,293	Germany 2.36% Croatia 3.26% Slovenia 3.26% The Netherlands 3.31% Austria 3.42% Switzerland 4.31% Spain 5.26% Denmark 5.3% Finland 5.3%

Monitoring of research. The second monitoring activity is performed on research documents, such as academic articles and other documents (e.g. reports, white papers) produced by international and national organisations (e.g. Eurostat, the Organisation for Economic Co-operation and Development (OECD), United Nations Conference on Trade and Development (UNCTAD), US Federal Reserve), consulting companies (e.g. The Boston Consulting Group, McKinsey & Company) and leading practitioner organisations. The following methodology is adopted.

- Keyword search (based on English keyword reported in Annex A) in the most important academic electronic databases, such as Elsevier's Scopus, ISI Web of Knowledge and Google Scholar.
- Analysis of the proceedings of the most relevant conferences in international business (e.g. Academy of International Business and European International Business Academy) and operations management (e.g. European Operation Management Association and International Purchasing and Supply Education and Research Association).
- Keyword search in internet search engines (e.g. Google) using English keywords jointly with company names of major consulting companies

(e.g. The Boston Consulting Group, Deloitte) and institutions (e.g. US Federal Reserve, World Bank, UNCTAD, OECD, EU).

- Analysis of a number of internet sites focused on reshoring (Direction Générale des Entreprises, n.d.; Reshore UK, n.d.; Reshoring Initiative USA, n.d.).

For all the sources retrieved in the steps above, a snowballing approach was adopted (i.e. the list of references in each study was checked to identify other relevant contributions). The list of contributions is included in the project database.

Policy monitoring. The third monitoring activity concerns policies, that is legislation, regulations and government initiatives at all levels (EU, national, regional level) that have direct or indirect relevance for reshoring. This monitoring activity relies on the press monitoring undertaken by M-Brain and on the analysis of research documents.

The European Reshoring Monitor website. The results from the monitoring activities are published on the dedicated website (Eurofound, n.d.). The website includes the following five sections:

- project
- methodology
- glossary of search words
- reshoring case dataset
- reshoring reference material dataset

The reshoring cases page contains a search engine that allows the user to search the full list of reshoring cases, or search through the application of specific criteria (company name, sector, company country, offshoring country, reshoring country, reshored business function, reshored services/activities, reshoring announcement date).

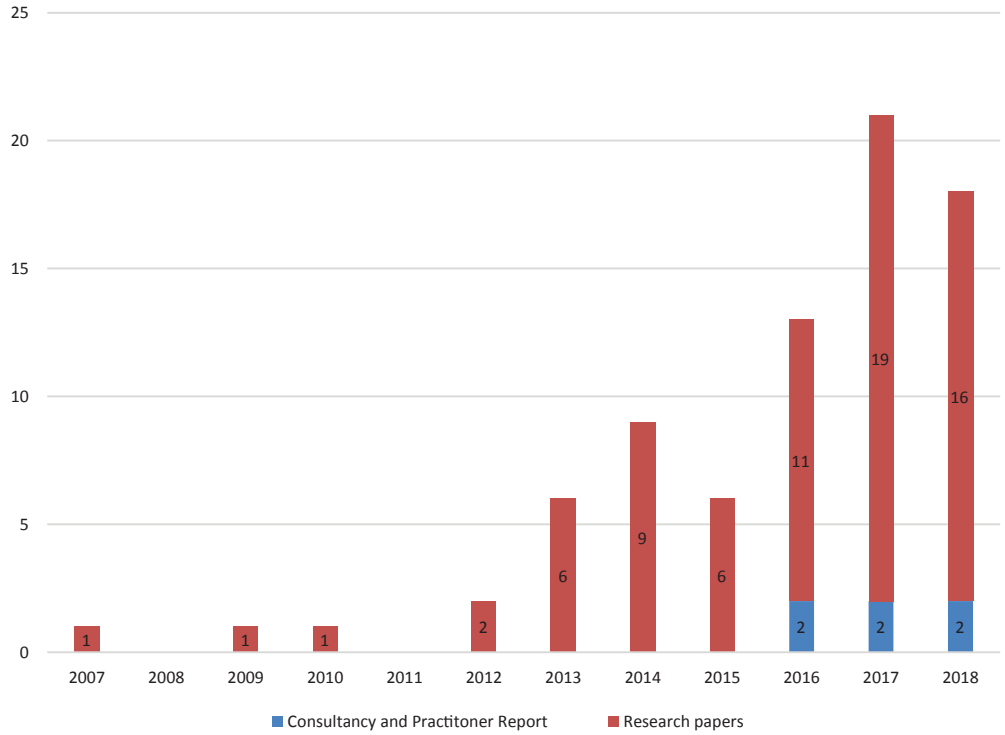
Academic and practitioner literature

In this section, we present an overview of the findings of the published academic and practitioners' research papers, focusing on contributions published in 2018. It is noteworthy that reshoring is generating a growing interest among scholars and practitioners. The first academic article on the subject was published in 2007 (Kinkel et al, 2007). After 11 years, more than 100 journal articles and book chapters indexed in the Elsevier Scopus dataset have been published. This body of literature, together with the reports produced by consulting companies and professional bodies, has contributed to the understanding of the causes and potential of reshoring. After reading all the available documents, the research group selected 78 documents (Figure 2) which provide useful insights for the European context.

Among the academic articles and book chapters, we found three literature reviews (Stentoft et al, 2016; Wiesman et al, 2017; Barbieri et al, 2018) that help to summarise the main findings in this research field. In this respect, it is useful to use the framework adopted by Barbieri et al (2018), which classifies the available knowledge in accordance with the following research questions.

- 'What' – this question aims to verify the convergence (if any) among scholars with regard to proposed reshoring concepts.
- 'Who' – this research question focuses on the characteristics of the firms implementing reshoring strategies, analysing elements like firm size and industries.
- 'Why' – this question refers to the motivations that induce companies to reshore production.
- 'How' – this question essentially relates to the decision-making and implementation phases of reshoring strategies, that is how managers make decisions to repatriate offshored activities and how they put these decisions into practice.
- 'Where' – this question is related to the geographical aspect and is evaluated on both the home and host country levels.

Figure 2: Number of academic and practitioners' documents by year



Source: *European Reshoring Monitor*

- 'When' – this question is mainly focused on the duration of the offshoring experience and the (possible) impact of contingent factors, such as the global economic crisis.

The 'What' question is the most debated in the current literature. A certain convergence among authors emerges, even if different labels (e.g. reshoring, backshoring, backsourcing) are adopted. In this report, we continue to use Fratocchi et al's (2014, p.56) definition of reshoring:

> *a voluntary corporate strategy regarding the home country's partial or total relocation of (insourced or outsourced) production to serve the local, regional or global demands, making the phenomenon a strategic option for manufacturing firms in regards their international relocation activities.*

At the same time, it must be noted that several authors have considered the relationship between reshoring and governance mode, that is whether the reshored production is insourced within the company or outsourced to its national supply chain actors (Gray et al, 2013; Bals et al, 2016; Foerstl et al, 2016). Even if the two decisions (the location and the governance mode) are distinct, they share some interdependencies. Moreover, the adopted governance mode has a significant impact on the implementation of the reshoring decisions, shifting the attention from the relevance of internal knowledge (see, for instance, Nujen and Halse, 2017) to the role of the external network in the home country (Baraldi et al, 2018).

When referring to the 'Who' question, the most analysed issue relates to the impact of firm size. In this respect, findings differ significantly across studies. For instance, while Kinkel (2014) and Kinkel and Maloca (2009) stated that, among German manufacturing companies, reshoring hardly occurs among SMEs, Canham and Hamilton (2013) found a higher reshoring propensity among New Zealand SMEs. Conversely, Fel and Griette (2017) found no significant difference among French reshoring firms with respect to their size. They also found SMEs generally more satisfied with the outcomes of reshoring decisions than large companies. Fratocchi et al (2016) noted differences in the proportion of SMEs according to the home country; more specifically, while SMEs headquartered in North America constituted the majority of sampled firms, western European SMEs represented only one-third of the total amount. In any case, Gray et al (2017) suggest reshoring decisions implemented by SMEs should be examined closely since they seem to present differences when compared to those implemented by large companies. In this respect, it is useful to consider findings concerning the effects of the reshoring incentives promoted by the government of South Korea (Moon, 2018). The evaluation, conducted by the Korea Institute for Industrial Economics and Trade (KIET), highlighted that one of the most relevant weaknesses of the adopted policy was its excessive focus on large enterprises where the companies most interested in reshoring appeared to be SMEs.

The 'Why' question is the second most investigated issue in the current reshoring literature (Barbieri et al, 2018). Several authors outline a broad variety of reshoring motivations including, in some cases, theoretical

frameworks to classify them (e.g. Stentoft et al, 2016; Fratocchi et al, 2016; Srai and Ané, 2016). In this respect, one of the most important findings in the literature is the evolving conceptualisation of the nature of reshoring decisions. While they were initially considered a mere correction of an earlier managerial mistake (Kinkel and Maloca, 2009), later studies have shown that reshoring decisions are often made in response to changes in the external environment (e.g. changes in the cost advantage of low-cost countries such as China). More recently, some authors (see Baraldi et al, 2018; Di Mauro et al, 2018) have contended that the reshoring decision is the result of a 'strategic shift' of the company, for instance due to a repositioning strategy towards higher-value sectors.

Moreover, recent studies (Di Mauro et al, 2018; Johansson and Olhager, 2018; Stentoft et al, 2018) have paid attention to the relationships between offshoring and reshoring drivers. These studies have confirmed that backshoring decisions depend on multiple competitive goals, while offshoring is generally driven only by efficiency-seeking aims.

The 'How' question remains the least addressed, despite being considered among the most important priorities for future research. Even if some attempts have been made – like the process approach proposed by Bals et al (2016) and Benstead et al (2017) and the decision-making process adopted by SMEs investigated by Gray et al (2017) – further research should provide more information on issues such as governance, technological upgrading following reshoring and impacts on performance. In this regard, a recent contribution by Johansson et al (2018) focuses on the benefits of reshoring, while Engström, Hilletofth et al (2018) and Engström, Sollander et al (2018) highlight barriers to reshoring.

The research paper published by the OECD (De Backer et al, 2016) deserves a special mention because of its emphasis on government policies implemented to support reshoring. The authors summarise evidence from US and western European countries building on Fratocchi, Barbieri et al (2015). Although national policies offered a wide range of tools (ranging from the mere supply of information to financial aids), the authors recommended that policymakers should embody reshoring within a broader framework aiming at stimulating investments from both national and foreign companies. In this respect, the creation of unfair competitive conditions arising from subsidisation of reshoring companies should be avoided.

The possible role of technologies from Industry 4.0 also merits special attention given the weight policymakers in several European countries attach to these technologies in industrial policy. See, for instance, the German 'Plattform Industrie 4.0', the French 'Alliance Industrie du Futur' and the Italian initiative 'Piano Industria 4.0' (Industrie du Futur, n.d.; Plattform i40, n.d.). Industry 4.0 can be considered as a reshoring driver or as a reshoring enabling factor. In this respect, interesting analyses were recently published on the impact of automation (Ancarani and Di Mauro, 2018) and of additive manufacturing technologies (Fratocchi, 2018; Moradlou and Tate, 2018). Box 2 below summarises the main findings from these studies.

Box 2: Reshoring and Industry 4.0

The article entitled 'Reshoring and Industry 4.0: How often do they go together?' (Ancarani and Di Mauro, 2018) investigates the links between the reshoring of manufacturing to high-cost countries and the adoption of technologies labelled Industry 4.0.

The article is based on 840 reshoring initiatives to either the US or Europe, and includes data from the European Reshoring Monitor.

The results of this article offer the following lessons for managers and manufacturers.

- Robotics is not a necessary ingredient of reshoring. The majority of reshoring manufacturers have not adopted robotics and labour-saving technologies. Reshoring companies with quality-oriented strategies rely on the premium price that the higher quality of products produced in high-cost countries can guarantee.
- Cost-oriented companies, however, may adopt robotics. Because the labour cost gap with respect to offshore production has a greater weight for these companies, they need to plan to adapt existing technology when repatriating production.
- Industry 4.0 supports manufacturing reshoring when design and product innovation are involved. 3D printing facilitates swift modifications of design and fast prototyping at costs only slightly higher than those borne in China.
- Technology is required to fill the void created by labour competencies destroyed during the offshoring process. Reshoring manufacturers may need to resort to robotics when the old supply base has vanished, and also because of a shortage of skilled workers.

Box 3: A growing interest in sustainability by reshoring researchers

Production activities affect all three dimensions of sustainability (economic, social and environmental). Therefore, decisions about where products are manufactured may have a negative impact on a firm's sustainability. Scholars are paying more attention to the relationship between a firm's reshoring decisions and sustainability issues. Analysis of the current literature shows that authors conceptualise sustainability as a motivation/driver for reshoring decisions. However, Engström, Hilletofth et al (2018) and Engström, Sollander et al (2018) show that it may also represent a barrier. For instance, authors found that in a Swedish furniture company the reshoring decision was delayed several times due to the entrepreneur's sense of social responsibility to protect German employees from unemployment. Moreover, Engström, Hilletofth et al (2018) show that companies aiming to reshore have to evaluate carefully the effect of such a decision in the offshored production unit, given the possibility of acts of sabotage.

In a similar vein, the current literature offers evidence regarding the role of customers' perceptions for both the social and environmental sustainability pillars. Pal et al (2018) speculate that this issue is expected to facilitate the backshoring decisions by Swedish manufacturing companies operating in the fashion industry. In this respect, Moore et al (2018) reported on a study by Cotton Incorporated which found that US customers believed that fashion products produced overseas had a greater negative environmental impact than those manufactured in the US. At the same time, Abbasi (2016) suggests that US reshoring companies in the clothing sector may take the opportunity to implement a strategy based on the recycling of apparel, given the growing 'throwaway attitude' within the industry (Ashby, 2016) and the availability of a good infrastructure for waste collection in the US.

Finally, it is worth noting the growing attention scholars are paying to environmental and social sustainability issues as possible drivers/effects of reshoring decisions (see Box 3).

With respect to the 'Where' question, research has aimed to identify home and host countries and their specificities. However, there is generally a scarcity of comparative studies, since most studies focus on one country or an extended area (e.g. the EU) considered as a whole (Table 2).

With respect to the home country, the phenomenon has been found in several western countries with characteristics – especially in terms of frequency of occurrence – varying among them.

In this respect, it is worth noting that differences have also been found within homogeneous regions, like the Nordic countries. For instance, while the reshoring decisions of Finnish companies were implemented mainly in the machine equipment and fabricated metal products sectors, for the pan-Nordic countries as a whole (Denmark, Finland and Sweden) reshoring has mostly concerned the transportation equipment and electrical equipment sectors. However, the three Nordic countries are homogeneous in terms of drivers with flexibility, quality and lead time being the leading motivations.

For comparative purposes, the 'back/offshoring ratio' (i.e. the number of backshoring decisions for each offshoring decision in the same period) deserves particular attention. While New Zealand companies are characterised by a 1:6 ratio (Canham and Hamilton, 2013) and German companies by a 1:4–6 ratio, Nordic country companies range between 1:1.13 (Denmark) and 1:2.4 (Finland) (Heikkilä, Nenonen et al, 2018). Finally, the only pan-European study (Dachs and Zanker, 2014) shows a ratio greater than 1:3. The different time frame of data – Nordic country data are more recent (2010–2015); New Zealand data are older (2001–2011) – may account in part for these significant differences.

Concerning host countries, Fratocchi, Barbieri et al (2015) compare European and US companies and find that US companies mainly reshored from China and other Asian countries, while European companies relocated mainly from other European countries. Significant differences also concern the reshoring period, with reshoring strategies implemented by European companies occurring since the 1980s, while US companies seem to have relocated more recently.

Within Europe, early academic research offers mixed results, also at the regional level. For instance, while 40% of Finnish companies backshore from Asia (Heikkilä, Martinsuo et al, 2018), 66.7% of Swedish companies relocate from western European countries (Johansson and Olhager, 2018). The only available pan-European survey shows reshoring decisions are almost equally distributed between EU15 (33% of total decisions) and EU12 (30%) countries.

Finally, the 'When' question was addressed adopting different perspectives: the first of which aims to evaluate variables affecting the offshoring duration (i.e. the time between the decision to move the value chain activity abroad and relocating to the home country). In this respect, by adopting a survival analysis approach, Ancarani et al (2015) were able to investigate the determinants of time span in a sample of companies in several countries, mainly in the EU and US. Their findings revealed that the duration seemed to be influenced by firm size, industry, adopted governance mode in the offshoring phase, reshoring drivers and host country. For instance, SMEs tend to return earlier than large firms; electronics and automotive companies return earlier than those in other industries. With regard

to the governance mode, companies implementing offshore outsourcing strategies generally return earlier than those implementing captive offshoring. Regarding the relationship between motivations and duration, quality concerns are generally associated with shorter offshore durations – similar results were found for the 'Made in' effect. Finally, offshore initiatives located in Asia had a significantly lower duration than those located in eastern Europe.

Table 2: Evidence of reshoring by home country

Authors	Year	Country	Period	Industries (first three ones)	Geographical areas (% first three)	Backshoring/ offshoring ratio	Drivers (first three)
Heikkilä et al	2018a	Finland	2010–2015	1) Machine equipment 2) Fabricated metal products 3) Electrical components	1) Asia (40%; China 27%) 2) Western Europe (33%) 3) Eastern Europe (27%)	1 back:1.9 off	1) Flexibility 2) Quality 3) Lead time
Heikkilä et al	2018b	Finland Sweden Denmark	2010–2015	1) Transportation equipment 2) Electrical equipment 3) Basic metals		1 back:2.4 off 1 back:1.19 off 1 back:1.13 off	1) Quality 2) Flexibility 3) Lead time
Johansson & Olhager	2018	Sweden	2010–2015	1) Labour-intensive production 2) Complex production	1) Western Europe (66.7%) 2) Asia (18.19%; China 11%) 3) Eastern Europe (9.1%)	1 back:1.13 off	1) Quality 2) Lead time 3) Flexibility
Fel & Griette	2017	France	No time limit (until summer 2016)	1) Automotive 2) Electrical and electronics 3) Metallurgy	Only offshoring in China		1) Labour cost reduction 2) Euro fall against US$ 3) Change in firm's strategy 4) Correction of managerial mistake
Kinkel	2014	Germany	Each two years by 1997	Up to 2006: only metal and electrical industries After 2006: whole manufacturing industries		1 back:4-6 off	1) Quality 2) Flexibility 3) Coordination efforts (captive reshoring) vs transport/logistic costs (outsourcing reshoring)
Dachs & Zanker	2014	13 European countries	2010–mid 2012	1) Electrical equipments 2) Computer and communication equipment 3) Automotive industry	1) EU15 (33%) 2) EU12 (30%) 3) India & China (21%)	1 back:more 3 off	1) Quality 2) Flexibility 3) Transport costs
Canham & Hamilton	2013	New Zealand	2001–2011	1) Consumer goods		1 back:6 off	1) Flexibility 2) Quality 3) 'Made in' effect
Kinkel & Maloca	2009	Germany	2005–2006	Up to 2006: only metal and electrical industries After 2006: whole manufacturing industries	1) Eastern Europe (39%) 2) EU15 (30%) 3) Asia (4%; China 2%)	1 back:4-6 off	1) Flexibility 2) Quality 3) Coordination costs

The second issue investigated with respect to the 'When' research question regards the role the global financial crisis has played in the reshoring phenomenon. In this respect, Kinkel (2012) found that, while offshoring decisions implemented by German companies decreased over the course of the global economic crisis, the levels of reshoring were broadly stable. In contrast, Fratocchi, Ancarani et al (2015) and Tate and Bals (2017) reported that reshoring has grown significantly in the years after the crisis, boosted by the return of North American firms. Finally, Fel and Griette (2017) noted that the number of reshoring operations in France has also grown significantly since the crisis.

In summary, although a significant body of empirical research on reshoring has been generated in the past 10 years, more research is needed, especially to understand the processes and consequences of reshoring, although it must be acknowledged that the identification, operationalisation and measurement of this phenomenon and the related performance effects present considerable methodological challenges.

Policy initiatives

Notwithstanding the increasing interest of western policymakers in reshoring, few policies that directly promote the relocation of value chain activities in the home country exist (Figure 3).

Reshoring has been referenced in some EU institutional communications. For instance, the European Parliament adopted a resolution on 'reindustrialising Europe to promote competitiveness and sustainability' which was based on one 'opinion' expressed by the Committee on Industry, Research and Energy. In this document reshoring initiatives are considered useful in supporting Europe's traditional industrial regions (European Parliament, 2013). The policy documents 'A Stronger European Industry for Growth and Economic Recovery' (October 2012) and 'European Industrial Renaissance' (January 2014) declare the EU aim to reverse manufacturing's declining share of GDP, increasing it from 15% to more than 20% by 2020. Reshoring may represent one of the means by which the objective may be achieved.

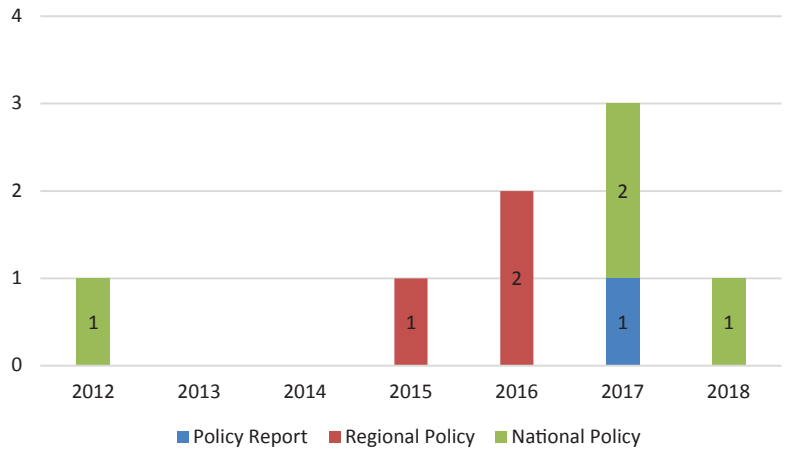
At the national level, reshoring policies are often coupled with those aimed at attracting investment, especially foreign inward investment. For example, in the UK, the Manufacturing Advisory Service (MAS) and UK Trade & Investment launched the Reshore UK service which supported companies in evaluating their capabilities, tailoring their relocation strategies and finding national suppliers. However, the MAS programme formally came to an end on 31 March 2016. At the same time, the British government participated in financing the Advanced Manufacturing Supply Chain Initiative (AMSCI) which funded projects aimed at improving the competitiveness of UK supply chains and encouraging new suppliers to locate in the UK (AMSCI, n.d.).

Also, France was quite active in supporting firms' relocation strategies, as shown by a survey conducted in 2013 by the Ministry for Industrial Renewal which revealed that 60% of the companies that undertook reshoring initiatives received support from central government and/or the local authorities. Among other support services, the Ministry of Economics and Finance made available the Colbert 2.0 software tool which helps companies self-evaluate their readiness for reshoring. However, data emerging from the reshoring monitor of France seem to show this service was not very supportive for local companies. Indeed, as of February 2019, the service is no longer active.

Another software programme designed to support firms in evaluating and implementing reshoring decisions has been developed by the US non-profit organisation Reshoring Initiative. It developed the Total Cost of Ownership Estimator®, an online calculator for determining the impact of reshoring vs. offshoring on a company's profit and loss.

In the Netherlands, the Ministry of Social Affairs and Employment created a special incentive fund (€600 million) to support job creation in the reshoring process

Figure 3: Documents regarding reshoring policies by year



Source: *European Reshoring Monitor*

in 2013 (Summer Foundation, n.d.). At the same time, in Italy, we found both initiatives at the country and regional levels. With respect to the latter, it is worth noting the parliament's decision to support the reshoring of call centre services, which could create at least 20,000 jobs (Repubblica, n.d.). The best practice at the regional level is the Emilia-Romagna Regional Law 14/2014, which provides for 'Location and Development agreements' between foreign companies aiming to invest within the region and Italian reshoring firms. Applicant companies – which are selected based on industry, technological innovation level and environmental sustainability of their production processes – may receive benefits in terms of fiscal and financial incentives as well as reduced time for administrative authorisations. Box 4 below summarises the aims of an innovative reshoring programme the Emilia-Romagna regional government is implementing in collaboration with four local universities.

Regarding the various national Industry 4.0 initiatives already mentioned, it is worth noting that three larger member states (France, Germany and Italy) have combined forces in an initiative to promote the digitisation of manufacturing (Plattform i40, n.d.).

The only structured analysis regarding the ex-post evaluation of the reshoring incentives was implemented by KIET with respect to the 'Act on Assistance to Korean Offshore Enterprises in Repatriation' promoted by the South Korean government in 2013 (Moon, 2018). Analysts found that the main factors warranting criticism related to the restrictiveness of criteria for accessing aid (i.e. construction of a totally new manufacturing facility in Korea coupled with the total interruption of all manufacturing relationships with the host country) and the excessive focus on large enterprises where greater interest was indicated by SMEs. On the firms' side, researchers found the main problem was the high level of reshoring costs and difficulty in correctly evaluating them in advance.

Box 4: The 'Scouting Reshoring Prototype' in Emilia-Romagna

As of February 2019, the University of Bologna – one of the European Reshoring Monitor's partners – is involved in a project supported by the local government of the Emilia-Romagna region, aimed at developing a 'Scouting Reshoring' prototype. The tool will assist the local government to:

- map the international manufacturing footprint of Emilia-Romagna's firms
- analyse and assess their reshoring propensity/potential and match it with the interests of various local stakeholders (e.g. other firms, trade unions, educational institutions, banks and financial institutions, etc.)
- identify a pool of candidates for reshoring, meeting the expectations of the local stakeholders
- develop incentive systems that may eventually support their reshoring decisions

The project is an innovative partnership that involves the Department of Economic Development of the Emilia-Romagna local government and the departments of Economics, Management and Engineering of the four universities of Emilia-Romagna: Bologna, Ferrara, Modena and Reggio Emilia, and Parma.

1 Reshoring cases

In this section, we analyse the 253 reshoring cases collected by the European Reshoring Monitor up to the end of December 2018, by considering several variables and issues:

- country of reshoring (home country vs. another EU country)
- comparison and relations between home, host and 'landed' country (only for repatriation in countries different from the home country)
- firm's size
- industry
- reshoring motivations
- offshoring countries
- employment impact

The database contains three different definitions of reshoring:

- activities previously offshored (by a European firm) and relocated to the home country in the EU ('backshoring')
- activities previously offshored (by a European firm) to a non-EU host country and relocated to an EU Member State different from the home country ('nearshoring')
- activities previously offshored (by a non-European firm) to a non-EU host country and relocated to an EU Member State ('other reshoring strategy')

Box 5 below defines some of the concepts that will be used in the analysis.

Box 5: Reference concepts

Home country: The country that hosts the company's official headquarters.

Host country: The country that hosted production or other value creating activity during the offshoring phase.

Landed country: The country that hosts the production after the reshoring.

Reshoring: Relocation of all or part of production or other value creating activities. According to the destination, we can further distinguish between backshoring (home country) and nearshoring (nearby country).

Backshoring: Relocation of all or part of production or other value creating activities back to the home country.

Nearshoring: Relocation of all or part of production or other value creating activities to a country near the home country.

When applicable, if a company has reshored different value chain activities from several offshore countries, these have been recorded as distinct reshoring cases.

For each case of reshoring identified through media monitoring, the research team has collected:

- general company data (location, employment levels, NACE code)
- information on the reshoring initiative (date, motivations, expected impact on employment, ownership of repatriated activities)
- the previous offshoring initiative (host country, ownership of offshore activities)

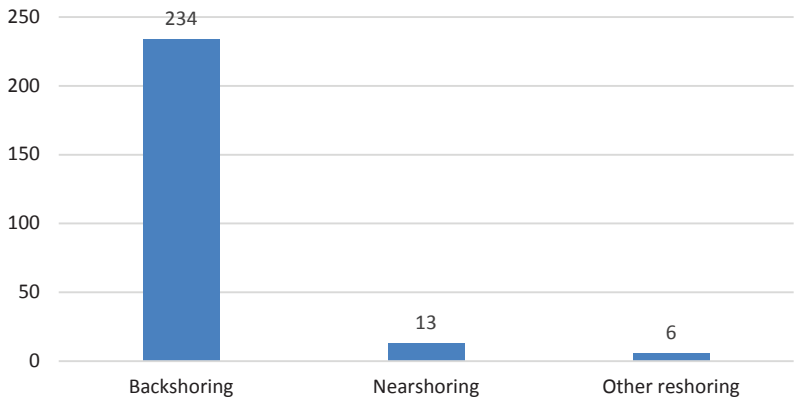
Unfortunately, information regarding how, when and why the company offshored in the past are only rarely available.

Reshoring strategies

As stated above, three distinctive reshoring strategies are included in the reshoring monitor: back-reshoring, near-reshoring and 'other reshoring strategies'. Figure 4 shows the frequency of each of them among the 253 cases. Backshoring represents the dominant strategy for companies in the dataset (92.4%), where near reshoring strategies account for only 5.1% of the cases. Therefore, it seems that companies prefer to reshore directly to their home country rather than to a nearby country. This can be explained by a twofold reasoning. On the one hand, the 'Made in' effect is one of the most important reshoring motivations (see the subheading 'Motivation for reshoring' below). In this respect, Di Mauro et al (2018) clearly show that Italian companies in the fashion industry prefer backshoring to nearshoring, since they want to leverage the 'Made in Italy' label. On the other hand, the 'emotional'

factors or 'local roots' of the entrepreneurs/managers often play a significant role in reshoring decisions (Fratocchi et al, 2016; Baraldi et al, 2018; Di Mauro et al, 2018). In this respect, a specific role may be played by industrial districts/clusters (Bettiol et al, 2017a, 2017b). Box 6 summarises the reshoring experience of a small Italian shoemaker in the Montebelluna industrial district (Di Mauro et al, 2018).

Figure 4: Reshoring strategies



Source: *European Reshoring Monitor*

Box 6: The reshoring experience of a small Italian company operating in an industrial district

Fitwell is a small Italian company producing outdoor and mountain shoes which is headquartered in the shoe district of Montebelluna. The firm was created in 1979 and initially focused on the production of highly technical mountain shoes. Given the small volumes, the company also worked as a contract manufacturer. In 1999, Fitwell began outsourcing its production to Romania in response to pressure from its key business customer demanding more a competitive cost. However, in 2009, Fitwell partially backshored its Romanian production, deciding to manufacture in Italy not only top-end shoes but also two out of the three main production stages for mid-range shoes (with its own brand). As of February 2019, only footwear at the upper end of its mid-range products is still manufactured in Romania, given greater sensitivity to price competition.

Giuliano Grotto, the company founder, commented on his reshoring decision as follows:

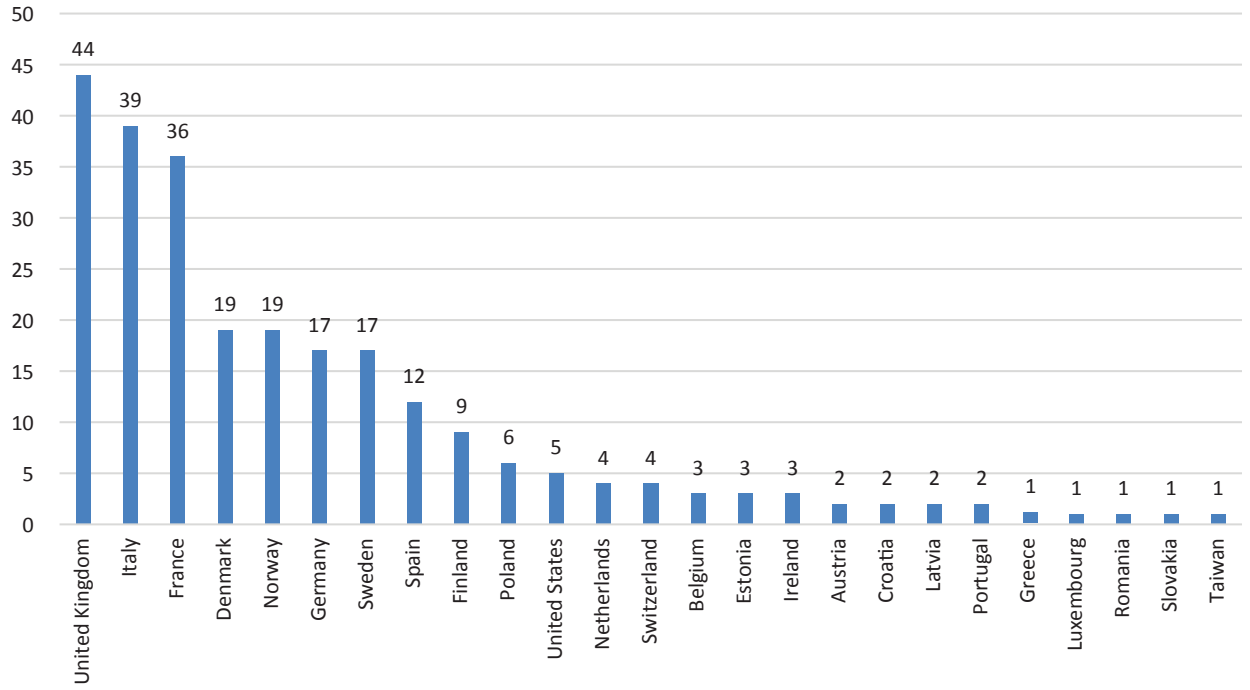
We came back because we are rooted in the territory [Montebelluna], because we are able to manufacture a product but in order to make it a quality product we must produce it in Italy […] With the concept of Made in Italy we have gained as far as quality is concerned, but we have also regained the pride to produce here at home.

Country of reshoring

The data collected suggest that the level of reshoring activity varies significantly across countries, confirming the results of the previous reshoring monitor reports (Figure 5). France, Italy and the UK remain the three countries with the highest number of reshoring cases. Despite its strong manufacturing tradition, Germany ranks only seventh among the reshoring countries. This is less surprising in light of the fact that Kinkel's (2014) study already identified that German manufacturing was starting to weaken. The performance of Nordic countries is also noteworthy; they rank among the top 10, in each case with a higher number of reported reshoring cases than Germany.

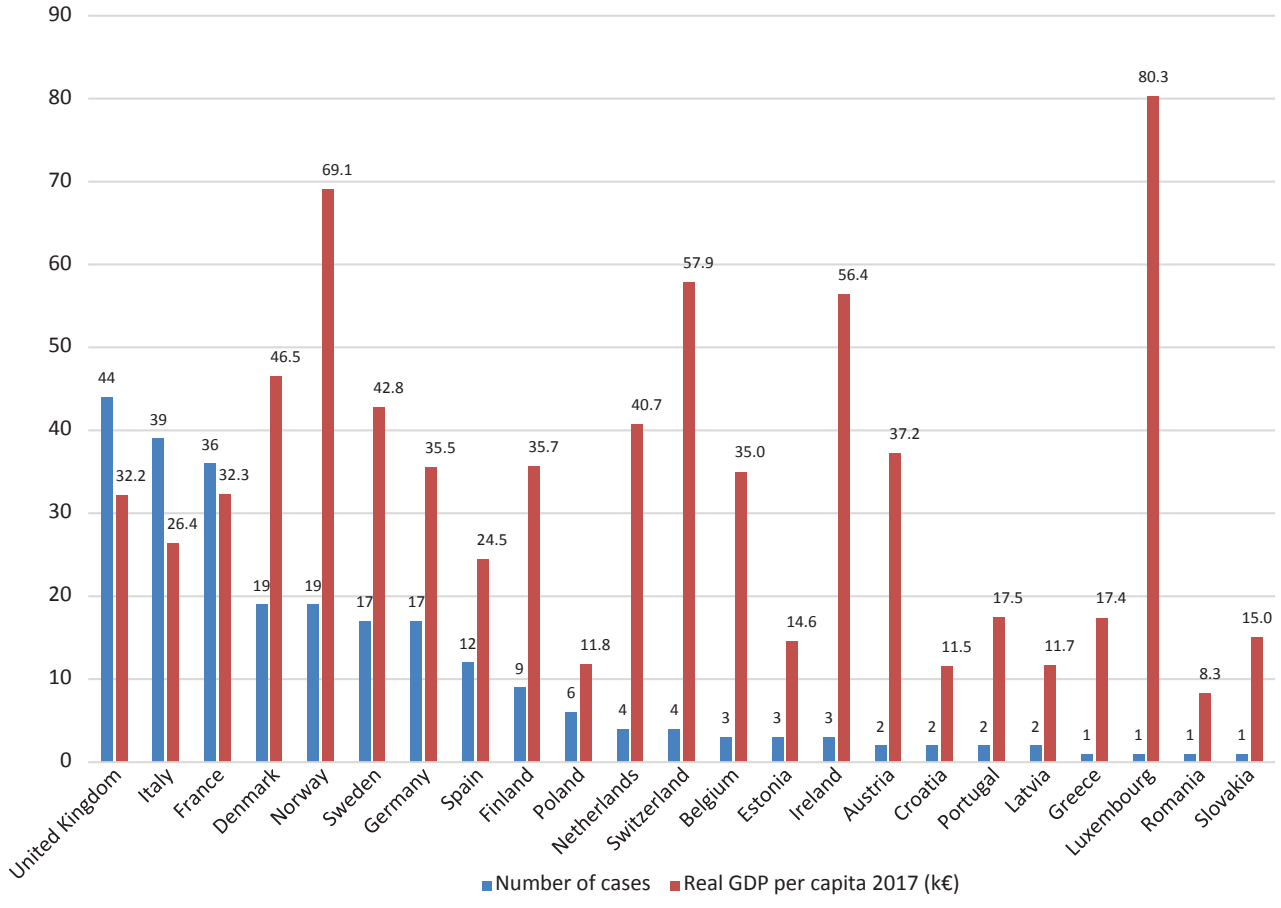
To make a scaled comparison of the reshoring phenomenon, the number of decisions per country has been compared with two economic indicators at the country level. The first indicator is GDP per capita, that is the ratio of the country's total GDP to the number of inhabitants. As shown in Figure 6, no clear relationship is revealed between the number of reshoring cases and GDP per capita.

Figure 5: Number of reshoring cases per country (2014–2018)



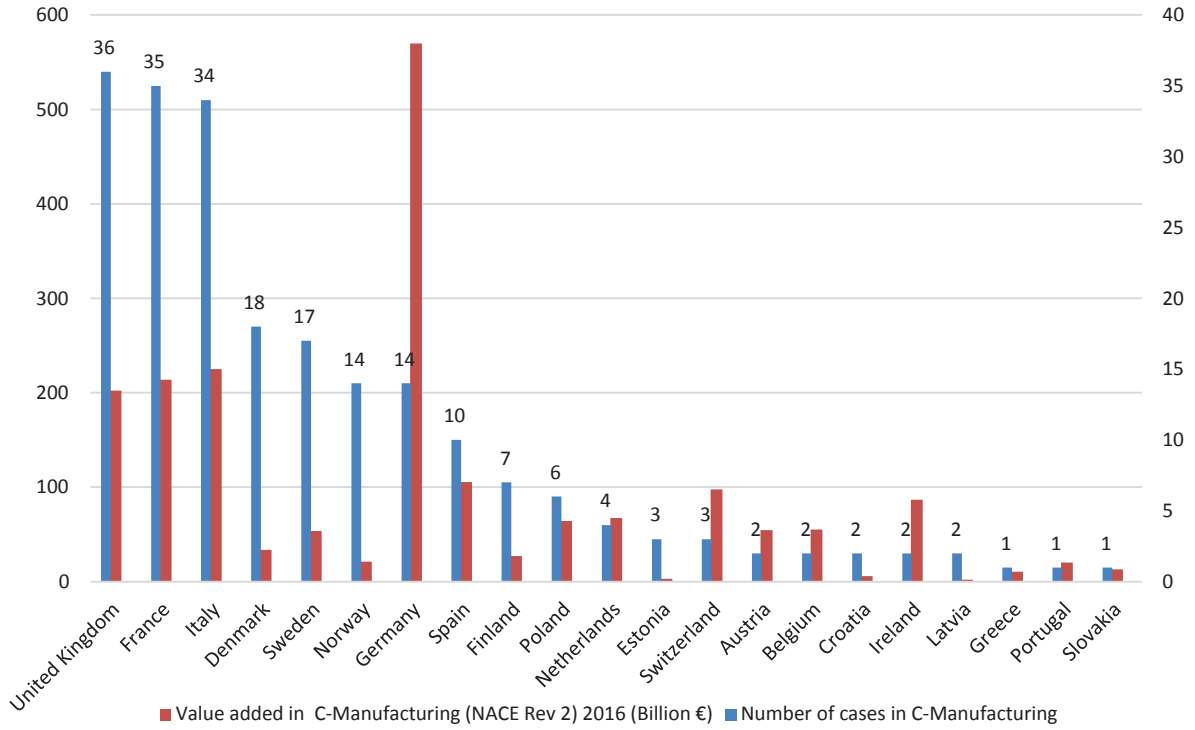
Source: *European Reshoring Monitor*
Note: *US and Taiwanese data refer to the 'Other reshoring' category.*

Figure 6: Comparison between number of reshoring cases (2014–2018) and GDP per capita



Source: *European Reshoring Monitor, Eurostat.*
Note: *GDP per capita (2017 data) except Switzerland (2016 data); France, Greece, the Netherlands, Portugal, Romania and Spain (expected 2017 data).*

Figure 7: Comparison between number of reshoring cases and value added by manufacturing sector (2016)



Source: *European Reshoring Monitor, Eurostat.*

Note: *2017 data; Belgium and Slovakia data not available.*

Since the majority of reshoring decisions concern the manufacturing sector, the second economic indicator selected to better understand the phenomenon was the value added, that is the difference between the value of what is produced and intermediate consumption entering production, less subsidies on production and costs, taxes and levies. More specifically, the value added of the manufacturing sector (NACE code group C) was used. There seems to be a clearer correlation between the number of manufacturing reshoring cases and value added by the manufacturing sector (Figure 7) than between the number of reshoring cases and GDP per capita, with the partial exception of Germany and the Nordic countries. Based on this analysis, then, reshoring appears not to be related to these economic characteristics of the home country.

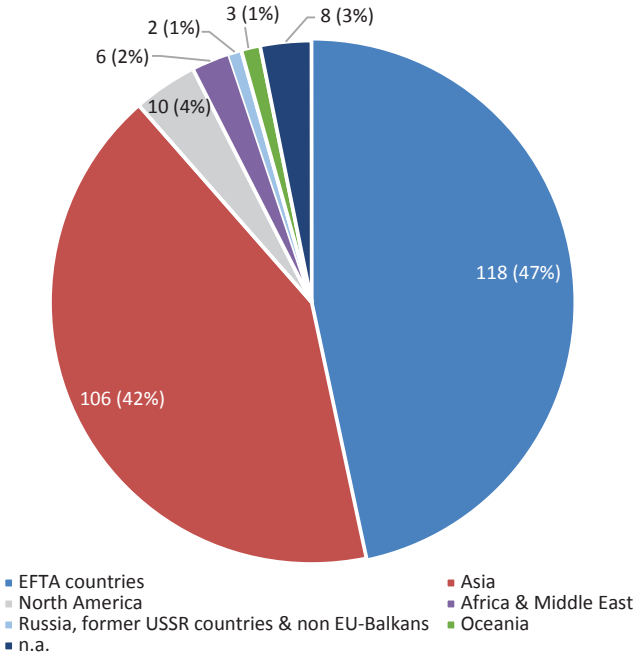
Finally, larger European countries (in terms of inhabitants), excluding Germany, account for a higher number of reshoring decisions.

Offshoring countries

Figure 8 shows the distribution of cases by host regions, that is the areas left after the reshoring decision. Cases are almost equally distributed between Asia and EFTA countries. This finding is extremely interesting for both policymakers and scholars, since the two areas have attracted offshoring for different reasons.

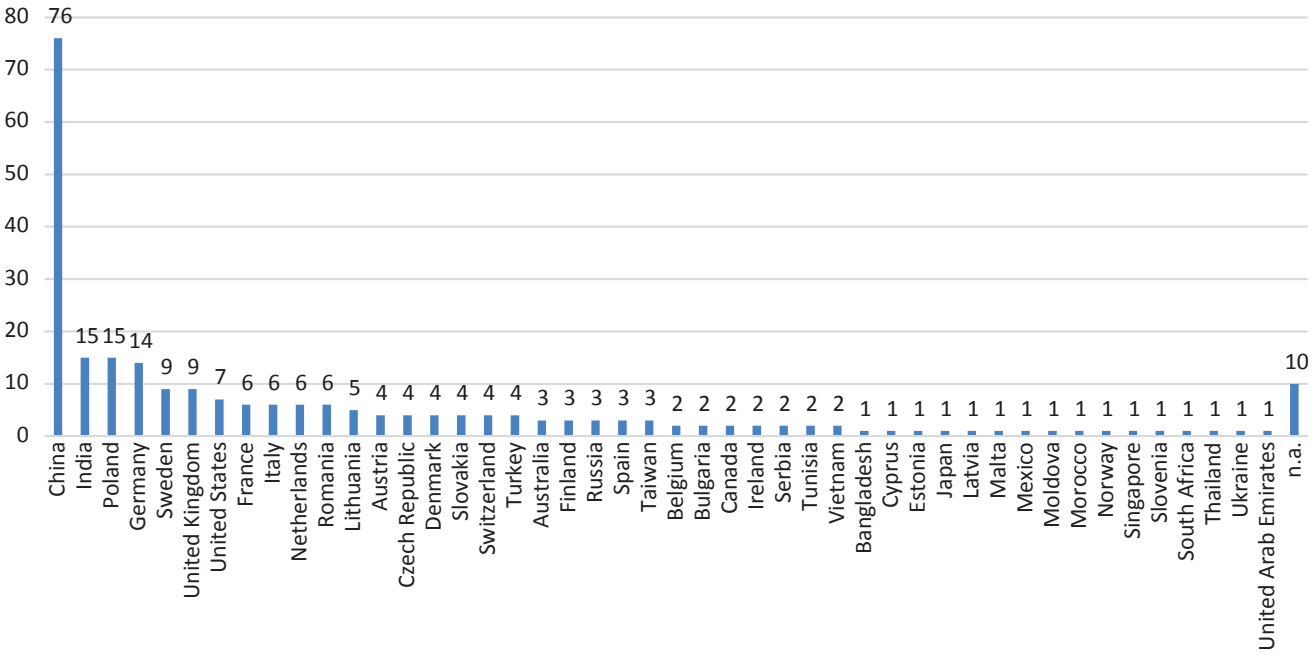
When considering decisions to reshore from individual offshore countries (Figure 9), China occupies the top position (around 30% of cases). This can be explained by different factors: (1) China (often called 'the world's factory') has traditionally been one of the most important offshoring countries; (2) Western companies sourcing or manufacturing in China have experienced some issues with product quality, IP rights and sustainability in recent years; and (3) production costs in China have significantly increased in recent years.

Figure 8: Breakdown by host region



Source: *European Reshoring Monitor*

Figure 9: Breakdown by number decisions to reshore from host country



Source: *European Reshoring Monitor*

As far as EFTA countries are concerned, Poland and Germany are the most frequent host countries (15 and 14 reshoring decisions respectively), demonstrating that reshoring is a strategic phenomenon involving both the traditional high-cost western European countries and lower-cost eastern European ones.

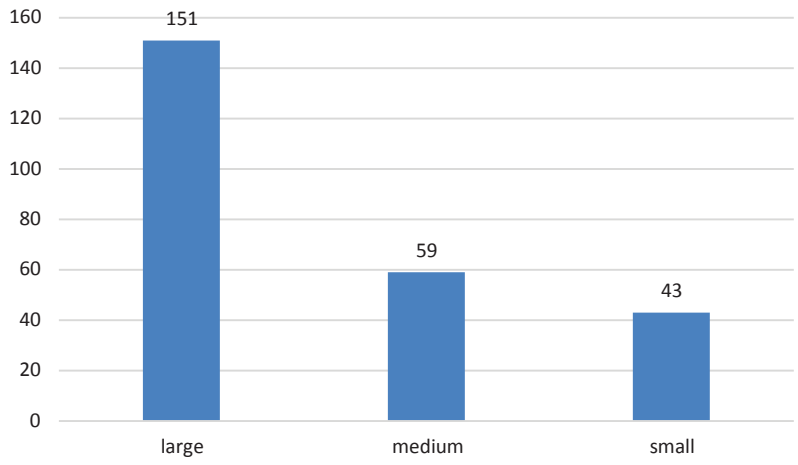
Company size

Figure 10 presents the breakdown of reshoring cases by firm size. We classified firms into three categories according to the number of employees, adopting the EU definition (2003/361/EC): small (less than 50 employees), medium (between 50 and 250 employees) and large (more than 250 employees).

Around 59% of reshoring cases involve large companies, while SME companies represent 41% of the collected cases. This result is consistent with recent findings for the Nordic countries (Heikkilä, Martinsuo et al, 2018; Heikkilä, Nenonen et al, 2018).

This evidence, which also deserves attention in light of the prevalence of SMEs in the EU, can be explained in different ways. Small enterprises have greater difficulty in rethinking their business strategies (e.g. due to a lack of resources), in particular abroad. They were less active in offshoring trends, and consequently in reshoring initiatives. As regards activity, small firms usually receive less attention from the media; thus, their reshoring initiatives are less likely to be detected through the methodology of media monitoring adopted in this project.

Figure 10: Breakdown by number of reshoring cases and firm size



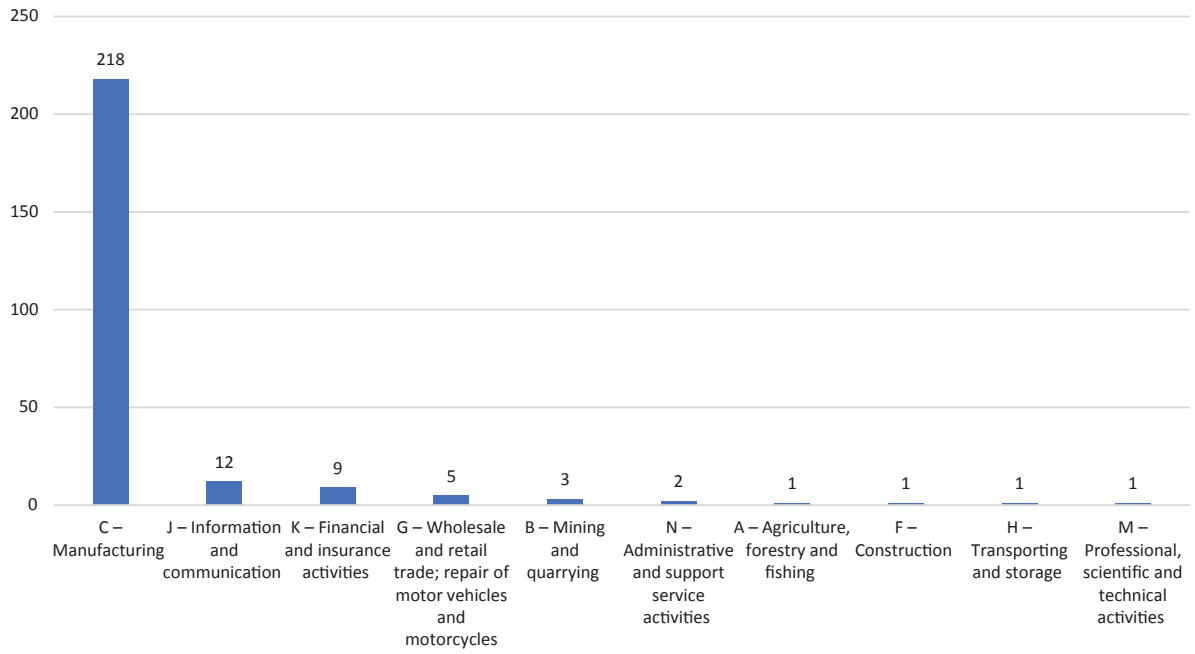
Source: *European Reshoring Monitor*

Sectors

As shown in Figure 11, more than 85% of reshoring cases occurred in 'Manufacturing' (218 cases), followed by 'Information and communication' (12) and 'Financial and insurance activities' (9). Despite the low number of reshoring cases in 'Information and communication', this sector had a significant impact in terms of employment gains (2,411 job gains, that is 18.7% of the total amount) though it should be noted that this data relates mainly to the 2,100 jobs created in a single case (Vodafone's reshoring of call centre activities – see Box 7).

Within the manufacturing sector, the following five sub-sectors are the most relevant as regards reshoring activity: C14 – Manufacture of wearing apparel, C10 – Manufacture of food products, C28 – Manufacture of machinery and equipment n.e.c., C26 – Manufacture of computer, electronics and optical products, C27 – Manufacture of electrical equipment, C30 – Manufacture of other transport equipment (Figure 12). These sectors represent 47% of the cases and 43% of total manufacturing jobs gained. Manufacturing as a whole accounts for 79% of total job gains arising from reshoring.

Figure 11: Breakdown by number of reshoring cases and sector



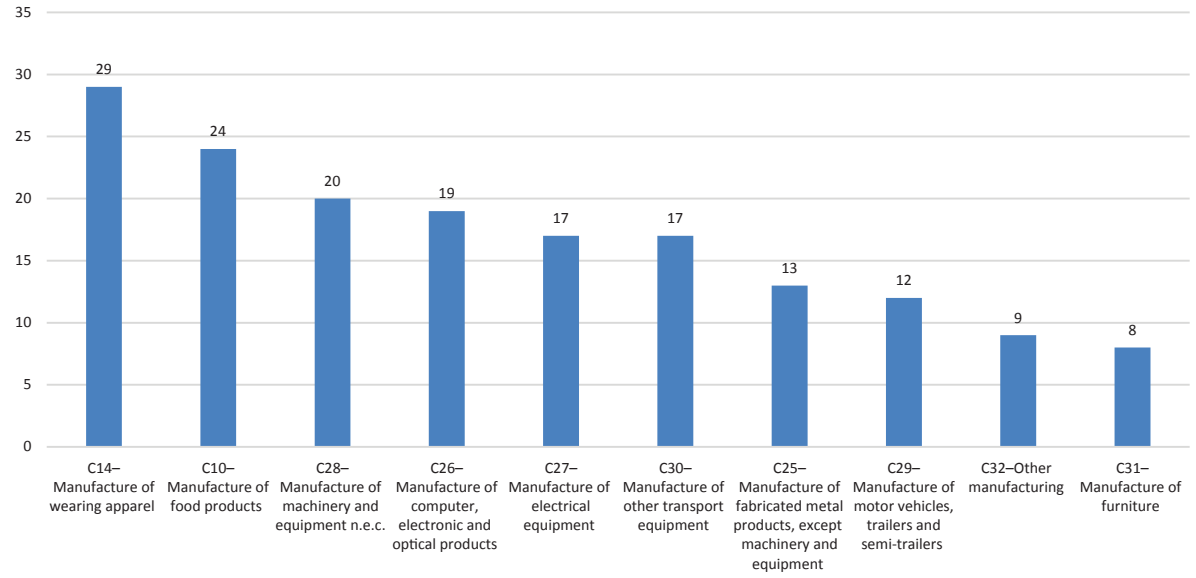
Source: *European Reshoring Monitor*

Box 7: Vodafone – the impact of reshoring on employment levels in the home country

Vodafone is a British mobile communications company operating in many countries around the world. In the UK it serves around 18 million customers and employs around 3,700 customer service operators, either directly or through contractors. As part of its GBP 2 billion investment programme over the 2016–2019 period aimed at improving the quality of its customer service, Vodafone announced the decision to relocate call centres previously offshored to South Africa back to the UK.

According to BBC news coverage, the Vodafone decision would create 2,100 jobs in the UK, both in its own call centres (Manchester, Newark, Stoke-on-Trent and Glasgow) and in those of service providers (600 jobs in Newcastle, Cardiff and the west of Scotland).

Figure 12: Case frequency by industry (only for manufacturing companies)



Source: *European Reshoring Monitor. Chart excludes sectors with fewer than eight reshoring cases*

Four cases from the most relevant industries in terms of reshoring decisions are presented in boxes 8–11 below.

Box 8: Roy Lowe & Sons – a British reshoring case in the clothing industry

Roy Lowe & Sons is a family-owned company established in 1996 in the UK. The firm produced socks in the UK until 2006. At that time, it decided to offshore and outsource production activities to China, Turkey and India to reduce production costs. In 2013, the company launched a new brand (SockMine) for its lines of technical, sport, leisure and workwear socks. It decided to leverage the 'Made in the UK' label. Therefore, it reshored some production activities and insourced them to its old plant in Sutton-in-Ashfield. Between 2013 and 2017, the company reshored around 10% of its entire production. Other reshoring motivations declared by the company included: product quality, delivery time, protection of innovation and co-location of R&D and production activities.

Box 9: Premier Is – a Danish reshoring case in food production

Premier Is is a Danish ice cream dairy established in 1933. In 2017, it bought its Danish competitor Hjem Is and decided to reorganise its plant's footprint, concentrating on the home country production activities previously located in Denmark, Germany, Ireland, Sweden, Slovenia and Poland. The decision to relocate the manufacturing function was also taken to ensure food quality and safety. As a result of this decision, the company increased the number of employees in its Thisted plant by around 20%.

Box 10: Vimec – an Italian reshoring case in the machinery and equipment industry

Vimec is an Italian company established in the 1980s that designs and builds stairlifts and elevators to overcome architectural barriers and improve accessibility. During the 1990s the company offshored production to its own plant in China. However, production costs and delivery times kept rising over the years, and exchange rate movements became unfavourable. For these reasons, the company decided to move all production activities back to its Italian site in Luzzara in 2017. This decision created 10 new jobs. By producing in Italy, the company has not only become more flexible but can also leverage the 'Made in Italy' label.

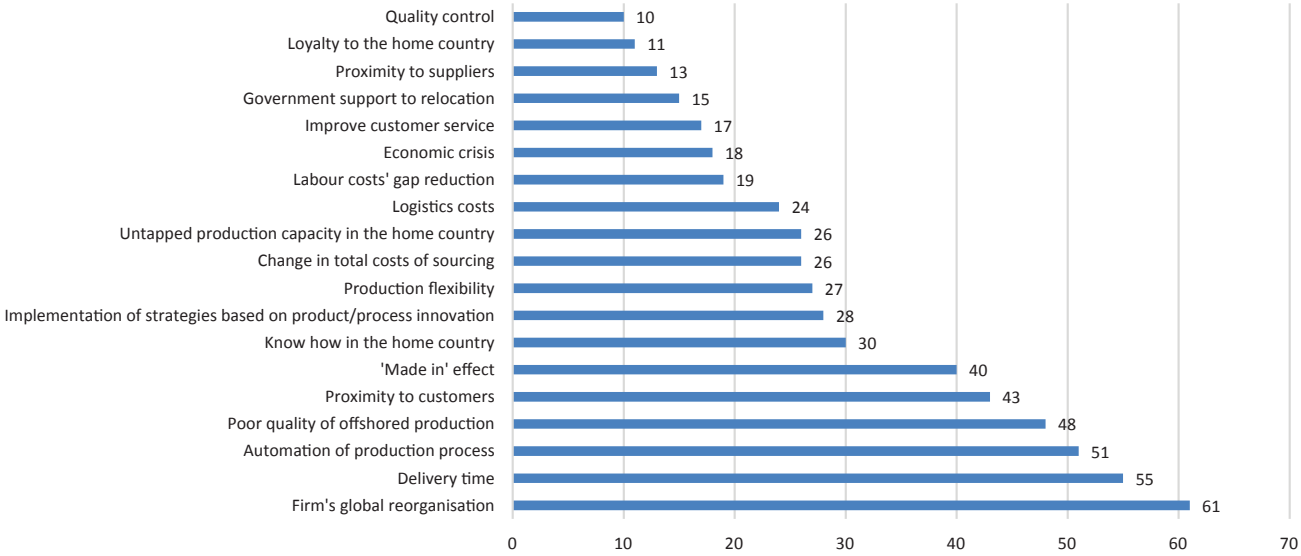
Box 11: Kapsys – a French reshoring case in the electronics industry

Kapsys is a French company founded in 2007 which operates in the fields of embedded intelligence and voice technologies. It designs and sells digital mobility and communication devices for elderly and visually impaired people. In 2017, the company decided to relocate the production of its second generation SmartVision mobile phone from China to France. The choice was driven by several motivations, among them poor product quality, long delivery times and increasing transport costs from its Chinese facilities. Production activities were outsourced to a French contract manufacturer that will also ensure a greater protection of Kapsys' know how and intellectual property, and will make relationships between the production team and the company's R&D department easier.

Motivation for reshoring

A vast array of drivers or motivations have been identified in current reshoring literature (Fratocchi et al, 2016; Barbieri et al, 2018). The reshoring monitor considered 56 reshoring drivers or motivations (see Annex C). Figure 13 presents the distribution of the most cited motivations by number of cases.

Figure 13: Reshoring motivations (only those declared at least 10 times)

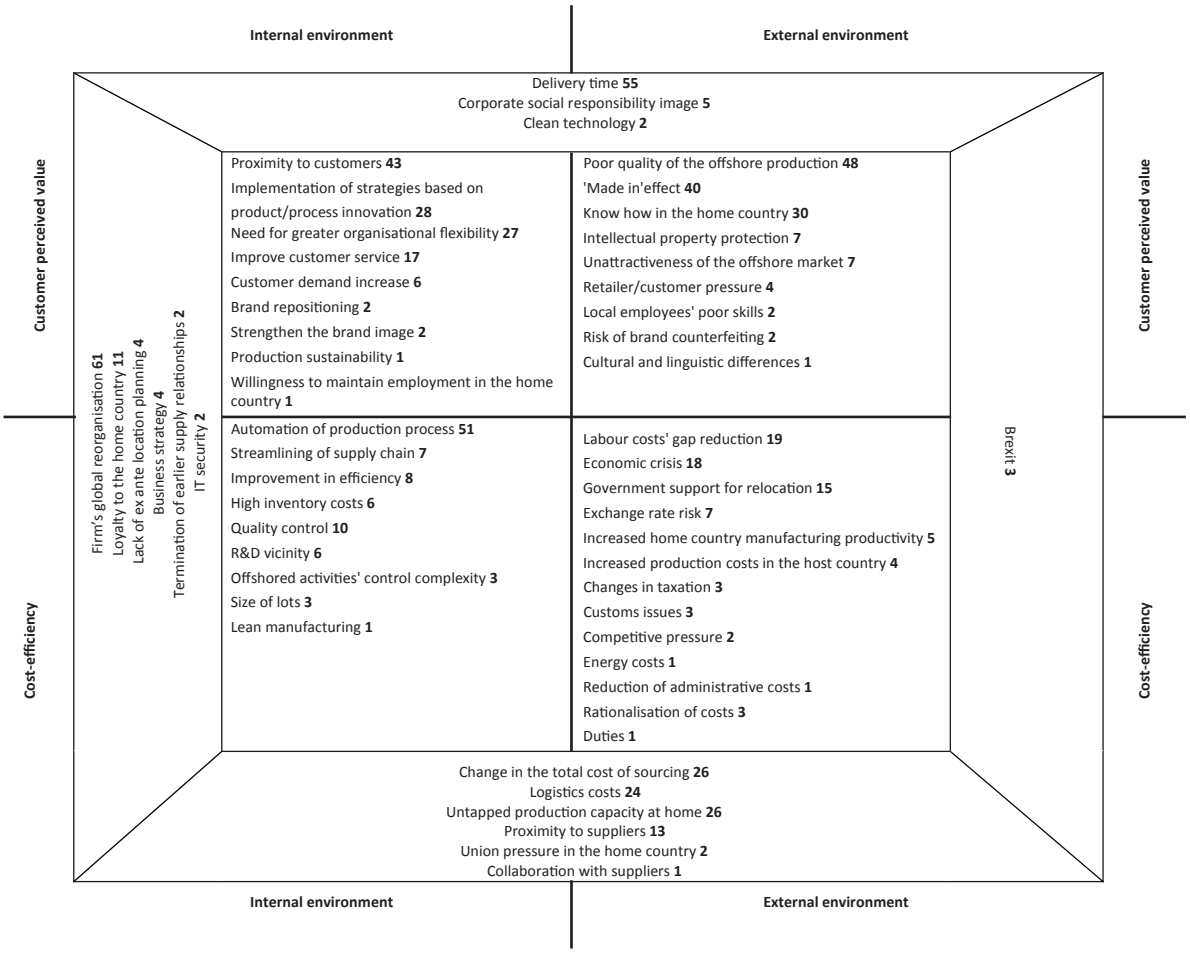


Source: *European Reshoring Monitor*
Note: *Multiple motivations can be indicated for a single reshoring case*

To understand whether these motivations are linked to specific models of reshoring, as in the previous reshoring monitor reports, we make use of a theory-driven framework introduced by Fratocchi et al (2016). This framework distinguishes reshoring motivations based on two main dimensions: the contextual factors affecting the decision (factors external to the firm vs. internal) and the strategic goals of the firm (customer perceived value vs. costefficiency). For illustration, external contextual factors include the home or host country's legislation or culture, labour markets, availability of suppliers and intellectual property protection. Internal contextual factors refer for instance to production processes, integration of company functions, processes and product innovation. Crossing the two dimensions (goals and main contextual factors), reshoring motivations can be mapped in a 2x2 matrix according to their nature. The matrix also includes four hybrid areas in which either one of the strategic goals or one of the factors becomes the dominating characteristic (Figure 14).

The two upper quadrants (value-driven motivations) account for around 33% of the total reported motivations. Among them, the most frequent are the 'Made in' effect and 'Poor quality of offshored production' (40 and 48 instances respectively) in the upper-right quadrant (external environment and customer perceived value). These two motivations are certainly linked with high-end luxury production in which offshoring the production or part of the value chain could be risky, and which implies falling internal quality standards. The Diadora case is presented in Box 12, which builds on the 'Made in' effect.

Figure 14: Framework for the analysis of reshoring motivations



Source: *Our elaboration of European Reshoring Monitor data based on Fratocchi et al, 2016*

Box 12: Diadora – the 'Made in' effect as a reshoring driver for an Italian fashion manufacturer

Diadora is an Italian company, mainly producing shoes, T-shirts and other products for sports activities. In 2017, Chairman Moretti Polegato announced company plans to reshore to Italy 10% of its high-end production activities over the next three years. The remaining products will be produced in China, Thailand and Vietnam. The decision was taken to support the product innovation process and bring the production and R&D departments closer to home. In addition, the company was able to leverage the 'Made in Italy' label and reduce the environmental impact of its production network.

'Proximity to customers' and 'Implementation of strategies based on product/process innovation' (43 and 28 instances respectively) are the most frequent motivations in the upper-left quadrant (internal and customer perceived value). 'Proximity to customers' refers to higher levels of service and reliability of a firm, as explained in Box 13 below.

Box 13: La Brava – proximity to customers as a reshoring driver for a Spanish food company

La Brava Beer is a Spanish brewing company which decided to locate its production activity in the Czech Republic in a century-old brewery. The company defined itself as 'nomad' and 'gypsy', as one of the most famous brewers in history. However, it always used ingredients sourced from the Girona area (near Barcelona) and used a traditional recipe.

As of February 2019, it plans to move its production activities from the Czech Republic back to Spain, investing €8–10 million in a new plant by 2023. The decision was taken since the company's main markets are in Girona and Barcelona, although it also exports its products to Australia and France.

Moving to the lower-left quadrant, we find 'Automation of production process' (51 instances), which has recorded a further significant increase in 2018 (7 more instances than in 2017). Investments in robotics and automation can reduce labour usage and in turn decrease cost differences between the offshore and domestic countries, thus fostering reshoring. However, as already pointed out, for this reason automation may limit the number of job gains in the home country after the implementation of reshoring decisions. Welltec (see Box 14 below) has recently reshored thanks to investment in automation. Box 15 has an interesting illustration of the role of reshoring (and of Brexit) in the event of a firm's global reorganisation.

Box 14: Welltec – the role of automation in the reshoring of a Danish company

Welltec is a Danish company developing and providing technologies and solutions for the oil and gas industry. In the past it outsourced and offshored production activities, mainly because of high production costs in the home country. In 2018 it invested heavily in robotics and automated production systems in its Danish plant, reducing the demand for labour and improving the level of efficiency. As a consequence, the company decided to bring back to Denmark part of the production function previously relocated to Poland.

Box 15: Deutsche Bank – business reorganisation and Brexit as a driver of reshoring

Deutsche Bank is a leading German bank operating at a global level. The bank announced it will move a large part of its securities trading business from London (UK) to Frankfurt (Germany) in response to Brexit. Moreover, the bank will concentrate its business for European corporate clients there. This relocation project started in 2017 and is still underway. The relocation will impact hundreds of employees.

A further characterisation of reshoring drivers has been implemented by analysing their relevance by landing country and by industry. With respect to the first dimension (geography) (Figure 15), reshoring to the UK (the country with the largest amount of reshoring decisions, 44) is mainly driven by issues with 'Delivery time' (17 citations of this driver out of a total of 55 within the entire dataset), 'Poor quality of offshored production' (14 out of 48) and 'Proximity to customers' (11 out of 43). Not surprisingly, Italy (39 decisions) is the leader of reshoring strategies driven by the 'Made in' effect (18 out of 40), which is also a characteristic of UK reshoring initiatives (13 cases). These results should be seen in light of Italy's manufacturing specialisation, where the fashion sector (top of the reshoring ranking by industry) represents one of the most important manufacturing sectors (Di Mauro et al, 2018).

With respect to the adoption of automated production systems (the fourth reshoring driver by number of cases, 51), Norway ranks first (13), followed by Italy (8), France and the UK (6 each). Italian reshoring cases are also characterised by the following other drivers: 'Firm's global reorganisation' (10 out of 61), 'Availability of know how in the home country' (10 out of 30) and 'Implementation of strategies based on product/process innovation' (12 out of 28). These findings suggest that reshoring drivers may be correlated with the economic and technological characteristics of the host country to some extent (Box 16).

Box 16: The home country effect

A recent article entitled 'Reshoring: Does home country matter?' (Wan et al, 2018) has attempted to answer the question of 'how the home country affects reshoring' using data from the European Reshoring Monitor and other sources.

By analysing a sample of 529 cross-industry reshoring projects by companies headquartered in five large advanced economies (France, Germany, Italy, the UK and the US), this study shows that reshoring projects differ significantly in terms of industry, entry mode, firm size and motivations across the analysed countries. These results offer strong evidence that home country does matter in reshoring processes.

With regard to Italian reshoring projects, it has been found that they are significantly skewed in terms of industry (with significant and positive over-representation in the clothing and electronics sub-sectors) and in terms of motivations or drivers (with a strong positive 'Made in' effect but less influence from factors such as 'labour costs' gap reduction' or 'delay in deliveries') when compared to the other countries analysed.

With regard to German reshoring projects, the distinctive characteristics concern the industry (mechanical machinery, equipment and metal products, significant and positive), firm size (large), entry mode (insourcing prevails) and some motivations ('quality issues', significant and positive; 'Made in' effect, significant and negative) compared to the other countries.

Box 16: (continued)

As far as UK reshoring projects are concerned, comparatively, they are distinguished by the dominance of time-based motivation, where 'delay in deliveries' and 'total costs' are found to be significant and positive motivating factors. In contrast, the 'logistics costs' and 'Made in' effect are significant motivations but with negative coefficients, that is less important considerations.

This study argues that the home country effects may manifest themselves in reshoring processes through multiple dimensions involving institutions, culture and size and profile of the manufacturing industries.

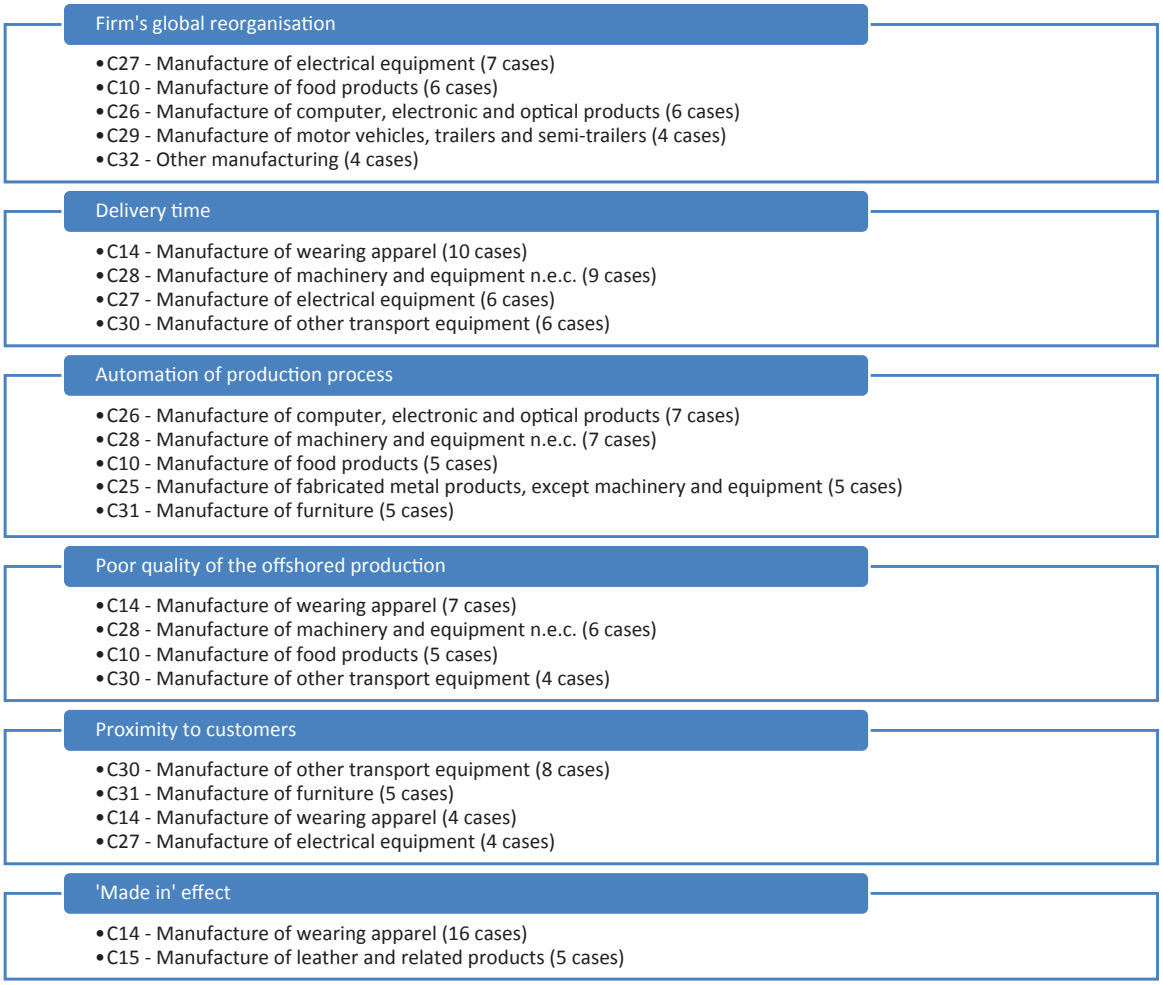
Figure 15: Frequency of cited motivations for reshoring by country

Firm's global reorganisation	• France C14 - Manufacture of wearing apparel (10) • Italy C14 - Manufacture of wearing apparel (10) • Sweden C14 - Manufacture of wearing apparel (10)
Delivery time	• United Kingdom C14 - Manufacture of wearing apparel (17) • Norway C14 - Manufacture of wearing apparel (8) • Italy C14 - Manufacture of wearing apparel (6) • Spain C14 - Manufacture of wearing apparel (6)
Automation of production process	• Norway C14 - Manufacture of wearing apparel (13) • Italy C14 - Manufacture of wearing apparel (8) • France C14 - Manufacture of wearing apparel (6) • United Kingdom C14 - Manufacture of wearing apparel (6)
Poor quality of offshored production	• United Kingdom C14 - Manufacture of wearing apparel (14) • Denmark C14 - Manufacture of wearing apparel (8) • Italy C14 - Manufacture of wearing apparel (8) • Norway C14 - Manufacture of wearing apparel (8)
Proximity to customers	• United Kingdom C14 - Manufacture of wearing apparel (11) • France C14 - Manufacture of wearing apparel (9) • Spain C14 - Manufacture of wearing apparel (7)
'Made in' effect	• Italy C14 - Manufacture of wearing apparel (18) • United Kingdom C14 - Manufacture of wearing apparel (13)
Know how in the home country	• Italy C14 - Manufacture of wearing apparel (10) • Germany C14 - Manufacture of wearing apparel (4)
Implementation of strategies based on product/process innovation	• Italy C14 - Manufacture of wearing apparel (12) • Germany C14 - Manufacture of wearing apparel (5)
Need for greater organisational flexibility	• United Kingdom C14 - Manufacture of wearing apparel (10) • France C14 - Manufacture of wearing apparel (5) • Italy C14 - Manufacture of wearing apparel (4)
Change in total costs of sourcing	• United Kingdom C14 - Manufacture of wearing apparel (8) • France C14 - Manufacture of wearing apparel (6) • Italy C14 - Manufacture of wearing apparel (4)
Untapped production capacity in the home country	• France C14 - Manufacture of wearing apparel (8) • Italy C14 - Manufacture of wearing apparel (7)
Logistics costs	• France C14 - Manufacture of wearing apparel (7) • United Kingdom C14 - Manufacture of wearing apparel (6) • Italy C14 - Manufacture of wearing apparel (5)

Source: *European Reshoring Monitor*

When breaking down reshoring drivers according to the manufacturing sub-sector (Figure 16), it clearly emerges that only the 'Made in' effect motivation is strictly associated with a specific industry (the clothing sector with 16 out of 38 citations), while other drivers relate to a variety of different industries.

Figure 16: Motivations for reshoring sorted by manufacturing sub-sector



Source: *European Reshoring Monitor*

Impact on employment levels

The reshoring monitor dataset provides evidence of the employment impact of recent reshoring initiatives in Europe. Understanding the number of jobs lost because of offshoring initiatives and jobs gained in the home country thanks to reshoring initiatives is very important, especially for policymakers. Unfortunately, this information is available in the secondary data sources used by the reshoring monitor only for less than half of the cases (99, i.e. 40.4% of the sample). This finding may prompt the speculation that in the other 60% of analysed cases the employment gains were totally absent or at least not relevant enough to be highlighted by the reshoring company when communicating its own decision or by the media in reporting the case.

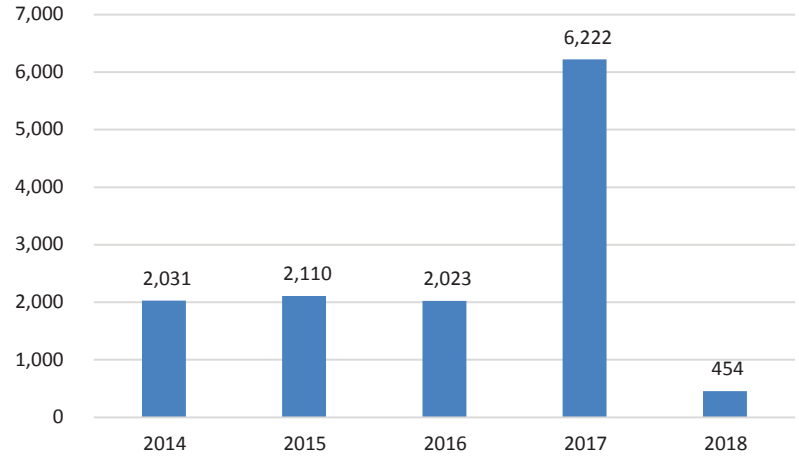
A total of 12,840 new jobs were linked to these 99 initiatives (Figure 17). In contrast to the 2017 data, in 2018 the number of new jobs greatly decreased both in total number (454 vs. 6,222) and in average job gains per case (86.4 vs. 11.3).

As far as reported job gains are concerned, two further issues emerge from the analysis of the case studies. First, the growing relevance of automation as a reshoring enabler (see the previous section, 'Motivation for reshoring'; Ancarani and Di Mauro, 2018), which implies a reduction of labour demand. Second, companies sometimes implement reshoring decisions based on a 'defensive' approach, which is leveraging untapped production capacity available in the home country. Analyses conducted especially among Italian companies clearly show that firms may reshore under the pressure of unions and local communities, if in the home country there is a risk of plant closure and employee lay-offs.

Of course, it should be taken into account that the real effect of reshoring on employment is probably much more significant than suggested by the reshoring monitor data,

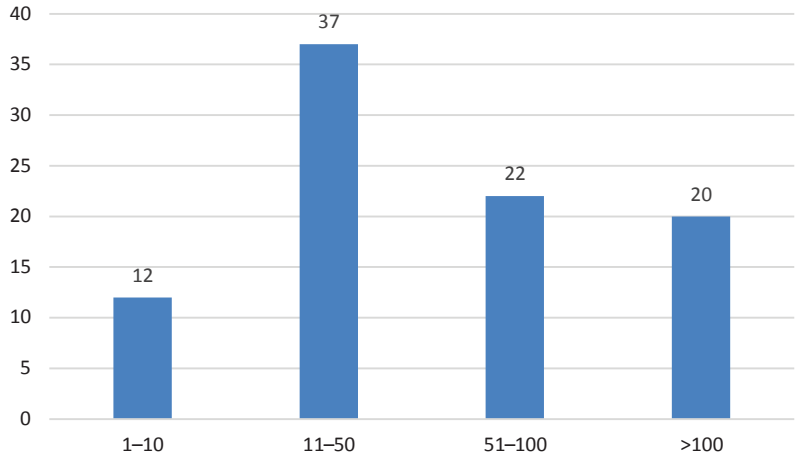
given the growing role of 'indirect' job creation, that is jobs created in companies that are part of the value chain of the reshoring company. Obviously, indirect job creation is more relevant when the reshoring companies relocate the manufacturing activity in the home country adopting the 'reshoring for out-sourcing' alternative (Gray et al, 2013), that is outsourcing the reshored production to local suppliers.

Figure 17: Number of jobs created



Source: *European Reshoring Monitor*

Figure 18: Classification of cases per number of created positions



Source: *European Reshoring Monitor*

2 Inter-annual comparison

What are the reshoring trends?

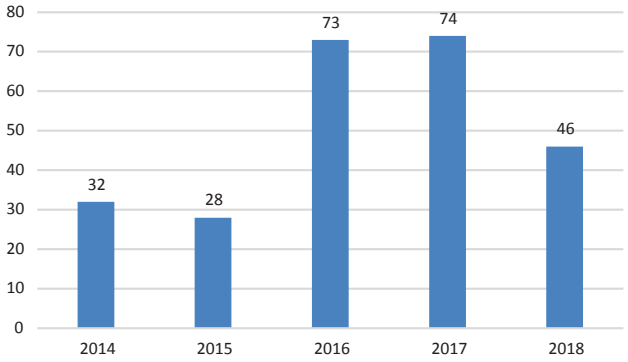
The number of cases remained fairly stable in the first two years, more than doubled in the following two years, and apparently decreased in the last year. This information should not be considered conclusive, given that news about a firm's reshoring decision often appears in the press after a time lag. Therefore, the total number of 2018 cases is likely to increase during the first months of 2019 (data collection for this report concluded in December 2018).

In establishing a trend, a caveat is necessary since a rigorous comparison of the annual data is difficult for the following reasons.

- M-Brain only started monitoring the news about reshoring projects at the beginning of 2016. Data referring to 2014 and 2015 have been drawn from another database (the Uni-CLUB MoRe Reshoring database), using a different methodology for collecting data and focused only on manufacturing companies.
- It is worth noting that a case of reshoring is sometimes associated with the 'announcement date' of the first reshoring project. New reshoring projects by the same company are sometimes not announced, or at least not reported by media.
- Media traditionally pay less attention to mature phenomena or phenomena that are no longer considered novel.

In our view, the phenomenon deserves future attention by both scholars and policymakers, especially considering the possible impact of the emerging commercial tensions between the world's main trading blocs that may provide a fresh stimulus for reshoring initiatives.

Figure 19: Number of reshoring cases per year

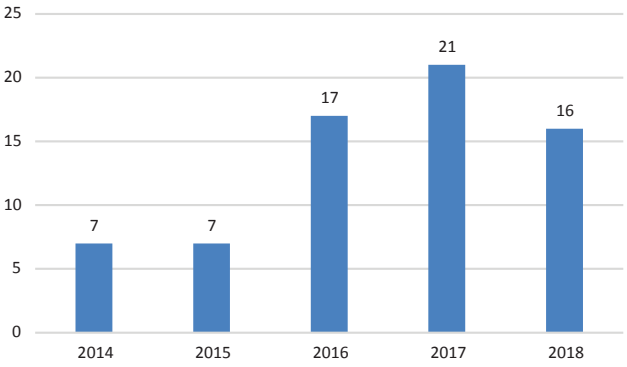


Source: *European Reshoring Monitor*

Which home countries are more active regarding reshoring?

Analysing data by home country, some substantial time-based differences of the reshoring phenomenon emerge. First of all, the number of home countries affected by the reshoring phenomenon greatly increased after the first two years (Figure 20), confirming that the phenomenon is spreading throughout Europe.

Figure 20: Number of home countries affected by reshoring decisions

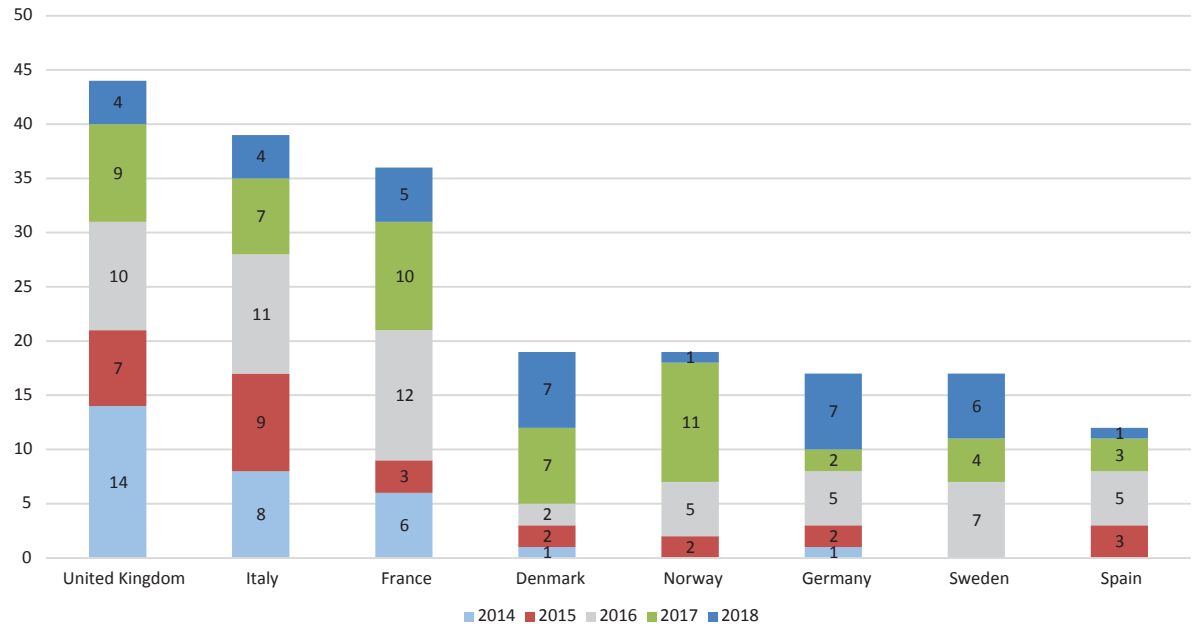


Source: *European Reshoring Monitor*

From a time-based breakdown at country level (Figure 21), three different patterns seem to emerge.

- 'Early reshoring' countries – in the case of the UK, one-third of reshoring initiatives were implemented in 2014, when the Reshore UK project was launched by UK Trade & Investment and the MAS.
- 'Second mover' countries – in the case of the three largest industrial countries in Europe (France, Germany and Italy) reshoring decisions peaked in 2016.
- 'Late reshoring' countries – primarily in the Nordic countries (Denmark, Norway and Sweden), most reshoring cases identified took place in the last two years. However, with respect to Norway, it ought to be noted that 4 out of the 11 cases found in 2017 relate to the same firm (I.P. Huse AS) which backshored to Norway with different reshoring decisions from the Czech Republic, Poland, Russia and Ukraine.

Figure 21: Number of reshoring cases per home country (only >10 decisions)



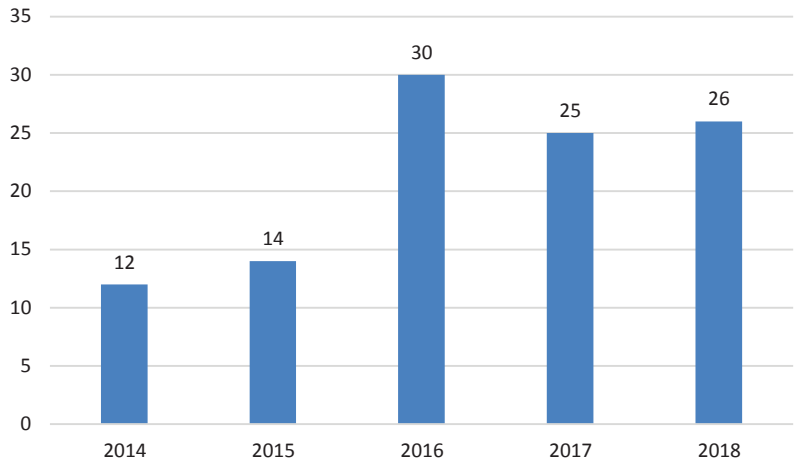
Source: *ERM*

Which are the main countries from which companies reshore?

As shown in Figure 22, the number of countries from which reshoring took place increased after 2015 and remained quite high for the next two years. This finding, together with the number of involved home countries and industries, clearly shows reshoring is becoming more widespread, even if the total number of cases has not increased sharply over the last five years.

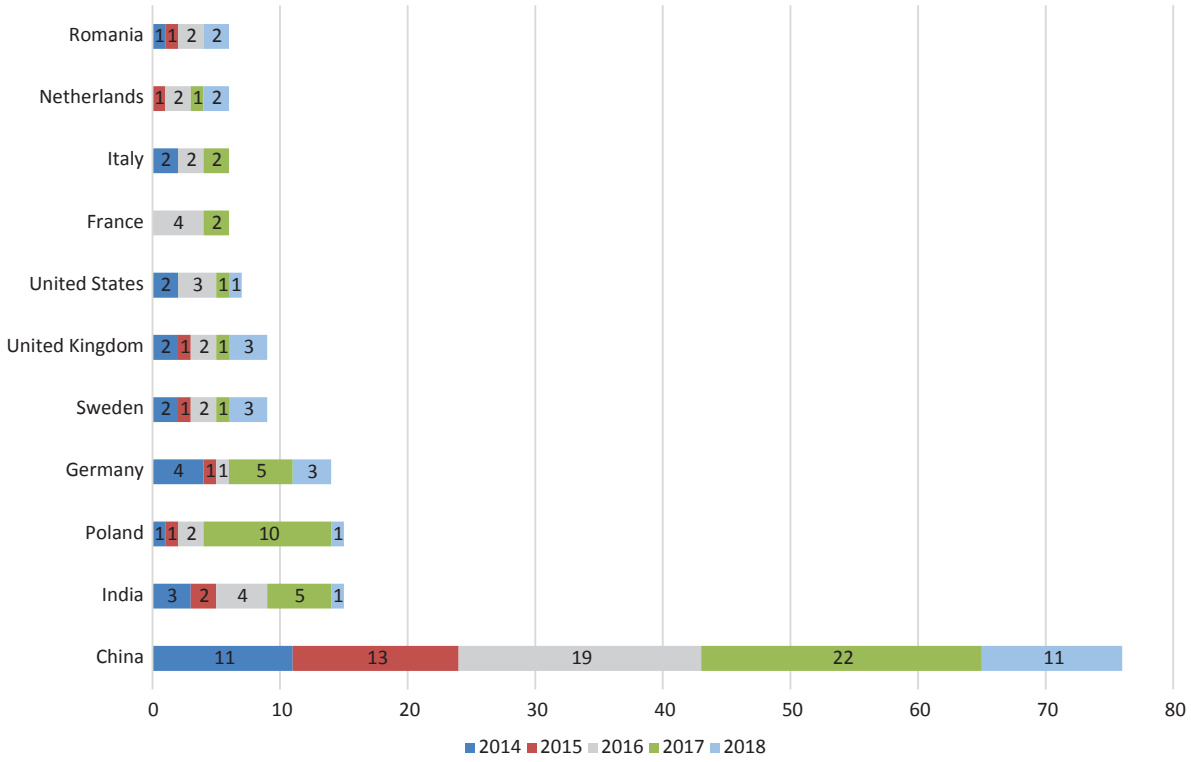
Breaking down the findings by single host country and time period, it is evident that nearly half of all identified reshoring took place from China and that China's share remains quite stable over the period. There is evidence of increased reshoring from Poland, India and Germany in 2017 (Figure 23).

Figure 22: Number of offshoring countries affected by reshoring decisions



Source: *European Reshoring Monitor*

Figure 23: Number of reshoring decisions by host country and year (>5 decisions)



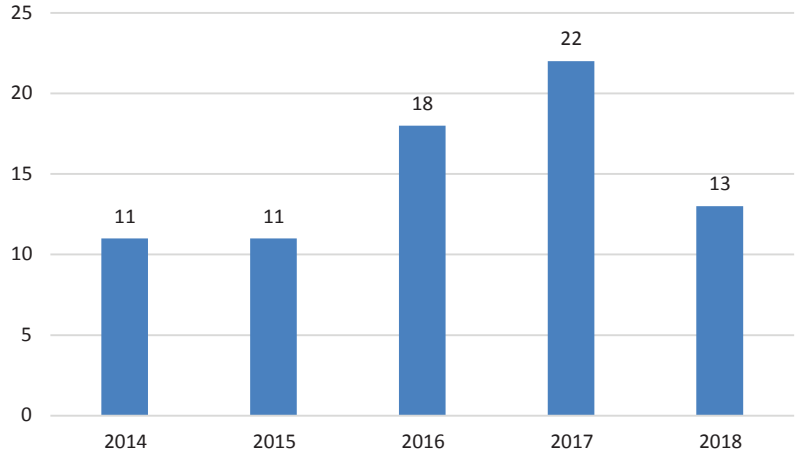
Source: *European Reshoring Monitor*

Which sectors are more active in reshoring?

Reshoring has occurred mainly in the manufacturing sector, which accounts for around 85% of total reshoring cases identified. Based on manufacturing cases only, Figure 24 clearly shows that the number of sub-sectors affected by reshoring has significantly increased over the period, rising from 11 in 2014 and 2015 to 21 in 2017 (out of a total of 25 manufacturing sub-sectors in the NACE classification).

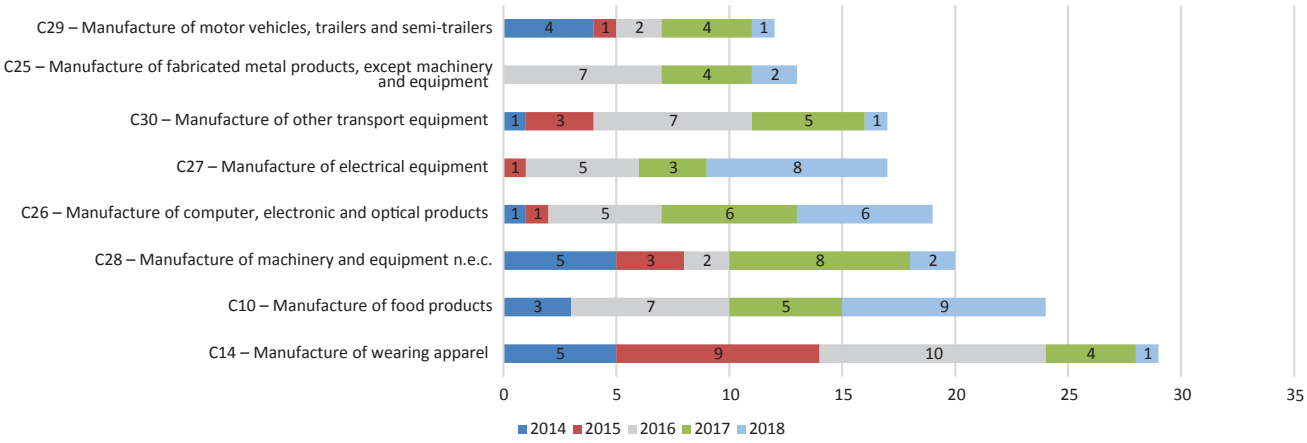
When considering the breakdown of the manufacturing sector, Figure 25 clearly shows how the share of each industry in the total number of reshoring announcements has changed over time. While in the last two years the number of reshoring cases in the clothing/apparel industry (the highest with 29 cases) reduced significantly, case numbers in food products, electronic and optical products and electrical equipment show an increasing trend.

Figure 24: Number of sub-sectors affected by reshoring decisions



Source: *European Reshoring Monitor*

Figure 25: Number of reshoring cases per industry (only >10 decisions)

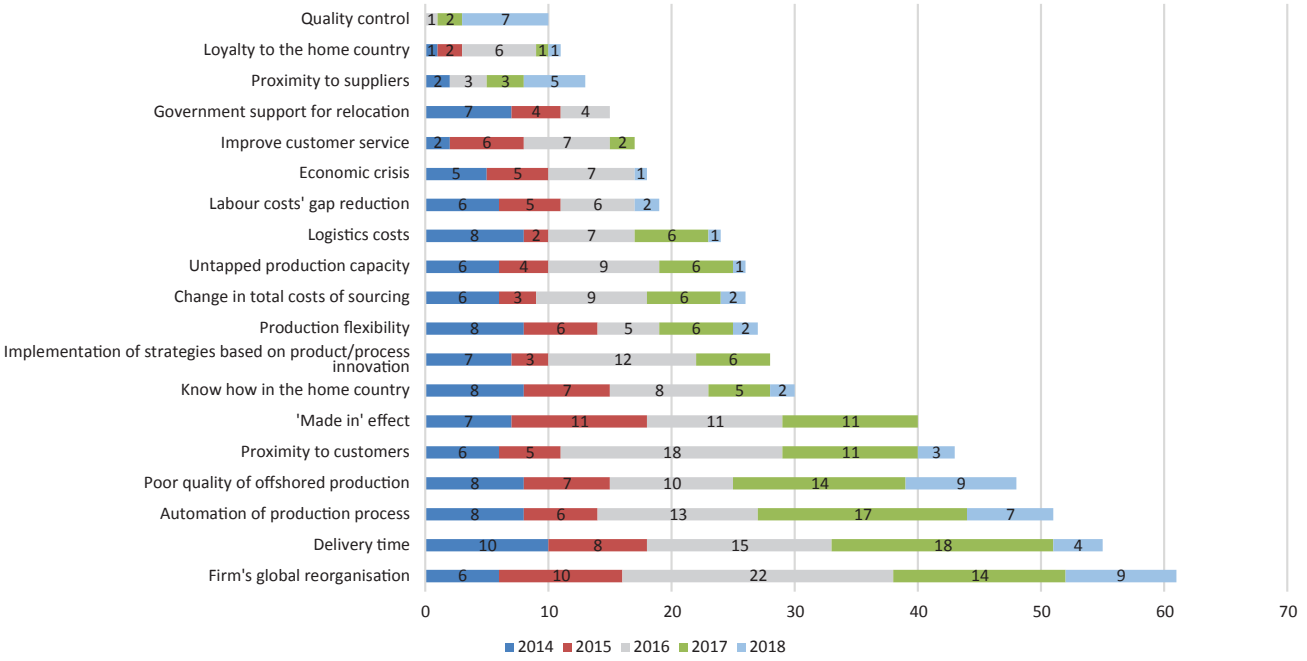


Source: *European Reshoring Monitor*

How are reshoring motivations changing?

Figure 26 summarises changes in the reshoring drivers' relevance within the period under investigation. While quality issues (both in terms of quality level and cost for quality audit) increased in relevance, the effect of the economic crisis declined as a motivation after 2016. At the same time, the adoption of automated production systems increased as a driving factor, while the 'Made in' effect almost disappeared in 2018, largely as a consequence of the sharp reduction of backshoring decisions in the fashion industry.

Figure 26: Inter-annual comparison of motivations



Source: *European Reshoring Monitor*

Table 3 summarises the main findings of the inter-annual comparison.

Table 3: Summary of main findings

Analysed issue	Main findings
Reshoring case frequency	The phenomenon increased between 2015 and 2017.
Home countries	A spreading phenomenon: the number of home countries has grown steadily since 2015.
Time periods	Three groups of reshoring countries were identified: 'earlier reshoring' (UK), 'second movers' (France and Italy) and 'late reshoring' (Denmark, Norway and Sweden).
Host countries	The number of host countries – i.e. the country to which production was originally offshored – has declined. China has been the leading host country in each of the last five years. The importance of reshoring from Poland and India increased in 2017.
Industries	The spread of industries affected by reshoring decisions also increased in 2016 and 2017. Manufacturing accounts for around 85% of all cases. Within manufacturing, the clothing industry has been the most affected over the period covered but, in 2018, case frequency fell sharply in this sub-sector. Reshoring in the food industry grew significantly in 2018.
Employment	Information on the employment effects of individual reshoring cases is partial and incomplete. Such effects are only made explicit in around 40% of media articles dealing with individual cases. In the cases covered, around 12,840 direct jobs were created over five years. Creation of 'indirect employment' is likely to be significant, although there is no research evidence of the reshoring multiplier effect.
Motivations	'Firm's global reorganisation' is the most cited driver of reshoring decisions. Poor product quality in offshored production has been growing as a driver in more recent years, while automation and technology also emerged as important motivating factors in 2017 and 2018.

3 Concluding remarks

The data collected highlight some key features of the reshoring phenomenon. In quantitative terms, reshoring appears to be essentially stable, while qualitatively significant changes emerge relative to the following features.

- Target countries – reshoring flows, which in the past predominantly affected developed western European manufacturing countries (France, Germany, Italy and the UK) have broadened to encompass northern and eastern Europe. Intra-regional flows have become more important.
- Sectors – the variety of industries affected has grown significantly and the concentration in labour-intensive sectors observed in the past has declined.
- Motivations – cost factors, and even quality factors to some extent, which dominated the first wave of the phenomenon, have today given way to factors linked to the global reorganisation of value chain activities, the need for customer responsiveness (delivery times) and new technological trajectories (automation and digitalisation).

Even with all the caveats that the use of secondary data requires, the reshoring phenomenon that our data describe is quite different from that observed even in the recent past. Previously, reshoring was often in response to unmet expectations regarding a prior offshoring decision. Once the (total) costs of developing and managing a foreign manufacturing base became clear, some companies decided to bring production back. In the first decade of this century, the instability of the location advantages in some sourcing countries and the mounting global crisis helped tip the balance in favour of reshoring.

The results of the reshoring monitor are in line with recent research contributions. In particular, evidence has been offered of a relevant backshoring movement towards northern European countries, Poland and Spain. Furthermore, the global reorganisation of value chains has been increasingly acknowledged as driving backshoring, assisted by increasing investments in new technology in several industries.

As of February 2019, we are witnessing a phase characterised by a greater awareness of the risks and the hidden costs of outsourcing and offshoring. The geographical dispersion of operations may disappoint cost-cutting expectations and compromise product quality and premium quality positioning.

In addition, companies are more aware of the fact that back- or nearshoring are just two of the possible options for international (re)configuration. Therefore, they should not be examined separately, but in the context of overall operations network design as well as companies' corporate strategies.

To strengthen their competitive position, many emerging countries are making important modernisation efforts, significantly improving their industrial profile in terms of quality and innovation. In doing so, they develop their comparative advantage and increase the probability of being selected for nearshoring and/or further offshoring strategies.

Also, many European countries are supporting company investments in new technologies. Until now, these efforts are only partially driving reshoring. Many of the challenges that firms faced offshore can be addressed by relocation to home countries. The new generation of technologies appears to be providing opportunities to increase productivity and to address product quality issues, thus suggesting that further reshoring cases can be expected in the near future, driven by the falling costs of new technologies and encouraged by national plans that support technological upgrading.

Analysis of the links between reshoring and technology remains scarce, and is limited to northern European countries. Emerging research suggests that backshoring companies are among the most active in using new technologies, thus supporting the idea that this phenomenon may be reinforced in the near future by process innovations tied to the adoption of new technologies.

The evidence that emerges tends to confirm the evolutionary hypotheses of the reshoring phenomenon described in the already mentioned OECD report (De Backer et al, 2016), in particular the fact that 'after years of large-scale offshoring and outsourcing, companies increasingly look for more diversified sourcing strategies and consider more options in structuring their production processes'. Furthermore, De Backer et al (2016) point out that it is reasonable to assume that changes in cost structures, demand factors and new technologies will promote the regional rebalancing of some global value chains as well as a growing concentration of manufacturing activities in regional or local hubs closer to end markets.

In conclusion, the data collected so far in the European Reshoring Monitor show that reshoring is an ongoing process whose features are evolving over time. Continuous monitoring of this phenomenon remains important.

References

All Eurofound publications are available at www.eurofound.europa.eu

Abbasi, M. H. (2016), 'It's not offshoring or reshoring but right-shoring that matters', *Journal of Textile and Apparel, Technology and Management*, Vol. 10, No. 2, 1–6.

AMSCI (*Advanced Manufacturing Supply Chain Initiative*) (n.d.), Advanced Manufacturing Supply Chain Initiative, web page, accessed 4 February 2019.

Ancarani, A. and Di Mauro, C. (2018), 'Reshoring and industry 4.0: How often do they go together?', *IEEE Engineering Management Review*, Vol. 46, No. 2, pp. 87–96.

Ancarani, A., Di Mauro, C., Fratocchi, L., Orzes, G. and Sartor, M. (2015), 'Prior to reshoring: A duration analysis of foreign manufacturing ventures', *International Journal of Production Economics*, Vol. 169, pp. 141–155.

Ashby, A. (2016), 'From global to local: Reshoring for sustainability', *Operations Management Research*, Vol. 9, Nos. 3–4, pp. 75–88.

Bals, L., Kirchoff, J. F. and Foerstl, K. (2016), 'Exploring the reshoring and insourcing decision making process: Toward an agenda for future research', *Operations Management Research*, Vol. 9, Nos. 3–4, pp. 102–116.

Baraldi, E., Ciabuschi, F., Lindahl, O. and Fratocchi, L. (2018), 'A network perspective on the reshoring process: The relevance of the home and the host-country contexts', *Industrial Marketing Management*, Vol. 70, pp. 156–166.

Barbieri, P., Ciabuschi, F., Fratocchi, L. and Vignoli, M. (2018), 'What do we know about manufacturing reshoring?', *Journal of Global Operations and Strategic Sourcing*, Vol. 11, No. 1, pp. 79–122.

Benstead, A. V., Stevenson, M. and Hendry, L. C. (2017), 'Why and how do firms reshore? A contingency-based conceptual framework', *Operations Management Research*, Vol. 10, Nos. 3–4, pp. 85–103.

Bettiol, M., Burlina, C., Chiarvesio, M. and Di Maria, E. (2017a), 'From delocalisation to backshoring? Evidence from Italian industrial districts', *Investigaciones Regionales – Journal of Regional Research*, Vol. 39, pp. 137–154.

Bettiol, M., Burlina, C., Chiarvesio, M. and Di Maria, E. (2017b), 'Industrial district firms do not smile: Structuring the value chain between local and global', in Pedersen, T., Devinney, T. M., Tihanyi, L. and Camuffo, A. (eds.), *Breaking the value chain: Opportunities and consequences*, Emerald Publishing, Bingley, UK, pp. 269–291.

Canham, S. and Hamilton, R. T. (2013), 'SME internationalisation: Offshoring, 'backshoring', or staying at home in New Zealand', *Strategic Outsourcing: An International Journal*, Vol. 6, No. 3, pp. 277–291.

Cranfield University (2015), 'An analysis of the UK's capability to reshore production', White Paper, National Manufacturing Debate, 20 May, Bedford, UK.

Dachs B. and Kinkel, S. (2013), 'Backshoring of production activities in European Manufacturing', in Fynes B., Coughlan P., *Operations management at the hearth of the Recovery, Proceedings of the 20th EurOMA Conference*, UCD and TCD Schools of Business.

Dachs, B. and Zanker, C. (2014), 'Backshoring of production activities in European manufacturing. European Manufacturing Survey', EMS Bulletin No. 3, Fraunhofer Institute, Karlsruhe, Germany.

De Backer, K., Menon, C., Desnoyers-James, I. and Moussiegt, L. (2016), *Reshoring: myth or reality?*, OECD Science, Technology and Industry Policy Papers, No. 27, OECD Publishing, Paris.

Di Mauro, C., Fratocchi, L., Orzes, G. and Sartor, M. (2018), 'Offshoring and backshoring: A multiple case study analysis', *Journal of Purchasing and Supply Management*, Vol. 24, No. 2, pp. 108–134.

Direction Générale des Entreprises (n.d.), *Référents uniques à l'investissement*, web page, available at https://www.entreprises.gouv.fr, accessed 8 February 2019.

Engström, G., Hilletofth, P., Eriksson, D. and Sollander, K. (2018), 'Drivers and barriers of reshoring in the Swedish manufacturing industry', *World Review of Intermodal Transportation Research*, Vol. 7, No. 3, pp. 195–220.

Engström, G., Sollander, K., Hilletofth, P. and Eriksson, D. (2018), 'Reshoring drivers and barriers in the Swedish manufacturing industry', *Journal of Global Operations and Strategic Sourcing*, Vol. 11, No. 2, pp. 174–201.

Eurofound (n.d.), *European Reshoring Monitor*, web page, available at https://reshoring.eurofound.europa.eu, accessed 8 February 2019.

European Parliament (2013), *Reindustrialising Europe to promote competitiveness and sustainability*, press release, Brussels, 28 November.

Fel, F. and Griette, E. (2017), 'Near-reshoring your supplies from China: A good deal for financial motives too', *Strategic Direction*, Vol. 33, No. 2, pp. 24–26.

Foerstl, K., Kirchoff, J. F. and Bals, L. (2016), 'Reshoring and insourcing: Drivers and future research directions', *International Journal of Physical Distribution & Logistics Management*, Vol. 46, No. 5, pp. 492–515.

Fratocchi, L. (2018), 'Additive manufacturing technologies as a reshoring enabler: A why, where and how approach', *World Review of Intermodal Transportation Research*, Vol. 7, No. 3, pp. 264–293.

Fratocchi, L., Ancarani, A., Barbieri, P., Di Mauro, C., Nassimbeni, G., Sartor, M. et al (2015), 'Manufacturing back-reshoring as a nonlinear internationalization process', in Van Tulder, R., Verbeke, A. and Drogendijk, R. (eds), *The future of global organizing*, Emerald Publishing, Bingley, UK, pp. 367–405.

Fratocchi, L., Ancarani, A., Barbieri, P., Di Mauro, C., Nassimbeni, G., Sartor, M. et al (2016), 'Motivations of manufacturing reshoring: An interpretative framework', *International Journal of Physical Distribution & Logistics Management*, Vol. 46, No. 2, pp. 98–127.

Fratocchi, L., Barbieri, P., Ancarani, A., Di Mauro, C., Troiano, A., Vignoli et al (2015), 'Manufacturing back- and near-reshoring: A comparison of European and North American companies', in Stentoft, J., Paulraj, A. and Vastag, G. (eds.), *Research in the decision sciences for global supply chain network innovations: Best papers from the 2014 Annual Conference*, Pearson Education Inc., Old Tappan, NJ, pp. 107–128.

Fratocchi, L., Barbieri, P., Ancarani, A., Di Mauro, C., Troiano, A., Vignoli, M., Zanoni, A. (2013), Manufacturing Back-and Near-Reshoring: A Comparison of European and North American Evidence, in Stentoft J., Paulrai A., Vastag G. 'Research in Decision Sciences for Global Supply Chain Network Innovations: Best Papers from the 2014 Annual Conference', Pearson Education, pp. 107-128.

Fratocchi, L., Di Mauro, C., Barbieri, P., Nassimbeni, G. and Zanoni, A. (2014), 'When manufacturing moves back: Concepts and questions', *Journal of Purchasing and Supply Management*, Vol. 20, pp. 54–59.

Gray, J. V., Esenduran, G., Rungtusanatham, M. J. and Skowronski, K. (2017), 'Why in the world did they reshore? Examining small to medium-sized manufacturer decisions', *Journal of Operations Management*, Vols. 49–51, pp. 37–51.

Gray, J. V., Skowronski, K., Esenduran, G. and Rungtusanatham, M. J. (2013), 'The reshoring phenomenon: What supply chain academics ought to know and should do', *Journal of Supply Chain Management*, Vol. 49, No. 2, pp. 27–33.

Heikkilä, J., Martinsuo, M. and Nenonen, S. (2018), 'Backshoring of production in the context of a small and open Nordic economy', *Journal of Manufacturing Technology Management*, Vol. 29, No. 4, pp. 658–675.

Heikkilä, J., Nenonen, S., Olhager, J. and Stentoft, J. (2018), 'Manufacturing relocation abroad and back: Empirical evidence from the Nordic countries', *World Review of Intermodal Transportation Research*, Vol. 7, No. 3, pp. 221– 240.

Industrie du Futur (n.d.), *Alliance Industrie du Futur*, web page, available at http://www.industrie-dufutur.org, accessed 8 February 2019.

Johansson, M. and Olhager, J. (2018), 'Comparing offshoring and backshoring: The role of manufacturing site location factors and their impact on post-relocation performance', *International Journal of Production Economics*, Vol. 205, pp. 37–46.

Johansson, M., Olhager, J., Heikkilä, J. and Stentoft, J. (2018), 'Offshoring versus backshoring: Empirically derived bundles of relocation drivers, and their relationship with benefits', *Journal of Purchasing and Supply Management*, in press.

Kinkel, S. (2012), 'Trends in production relocation and backshoring activities: Changing patterns in the course of the global economic crisis', *International Journal of Operations & Production Management*, Vol. 32, No. 6, pp. 696–720.

Kinkel, S. (2014), 'Future and impact of backshoring: Some conclusions from 15 years of research on German practices', *Journal of Purchasing and Supply Management*, Vol. 20, No. 1, pp. 63–65.

Kinkel, S. and Maloca, S. (2009), 'Drivers and antecedents of manufacturing offshoring and backshoring: A German perspective', *Journal of Purchasing and Supply Management*, Vol. 15, No. 3, pp. 154–165.

Kinkel, S., Lay, G. and Maloca, S. (2007), 'Development, motives and employment effects of manufacturing offshoring of German SMEs', *International Journal of Entrepreneurship and Small Business*, Vol. 4, No. 3, pp. 256– 276.

Moon, J. (2018), 'Institutionalization of the reshoring facilitation policy and difficulties: From Korean experience', conference presentation, Korea Institute for Industrial Economics and Trade (KIET) 14th East Asia Institute Forum, 15 October, Singapore.

Moore, M. E., Rothenberg, L. and Moser, H. (2018), 'Contingency factors and reshoring drivers in the textile and apparel industry', *Journal of Manufacturing Technology Management*, Vol. 29, No. 6, pp. 1025–1041.

Moradlou, H. and Tate, W. (2018), 'Reshoring and additive manufacturing', *World Review of Intermodal Transportation Research*, Vol. 7, No. 3, pp. 241–263.

Nujen, B. B. and Halse, L. L. (2017), 'Global shift-back's: A strategy for reviving manufacturing competences', in Pedersen, T., Devinney, T. T., Laszlo, L. and Camuffo, A. (eds.), *Breaking up the global value chain: Opportunities and consequences*, Emerald Publishing, pp. 245–267.

Pal, R., Harper, S. and Vellesalu, A. (2018), 'Competitive manufacturing for reshoring textile and clothing supply chains to high-cost environment: A Delphi study', *The International Journal of Logistics Management*, Vol. 11, No. 1, pp. 79–122.

Plattform i40 (n.d.), *Shared action plan Industrie du Futur/ Industrie 4.0/Industria 4.0 in France – Germany – Italy*, web page, accessed 6 February 2019.

Repubblica (n.d.), *Call center, il piano di rimpatrio del governo*, web page, accessed 6 February 2019.

Reshore UK (n.d.), *Reshore UK*, web page, available at https://www.gov.uk/government/news/new-government-support-to-encourage-manufacturing-production-back-to-the-uk, accessed 8 February 2019.

Reshoring Initiative USA (n.d.), *Reshoring initiative: Bringing manufacturing back home*, web page, available at http://www.reshorenow.org, accessed 8 February 2019.

Srai, J. S. and Ané, C. (2016), 'Institutional and strategic operations perspectives on manufacturing reshoring', *International Journal of Production Research*, Vol. 54, No. 23, pp. 7193–7211.

Stentoft, J., Mikkelsen, O. S., Jensen, J. K. and Rajkumar, C. (2018), 'Performance outcomes of offshoring, backshoring and staying at home manufacturing', *International Journal of Production Economics*, Vol. 199, pp. 199–208.

Stentoft, J., Olhager, J., Heikkilä, J. and Thoms, L. (2016), 'Manufacturing backshoring: A systematic literature review', *Operations Management Research*, Vol. 9, Nos. 3–4, pp. 53–61.

Tate, W. L. and Bals, L. (2017), 'Outsourcing/offshoring insights: Going beyond reshoring to rightshoring', *International Journal of Physical Distribution & Logistics Management*, Vol. 47, Nos. 2–3, pp. 106–113.

Wan, L., Orzes, G., Sartor, M. and Nassimbeni, G. (2018), 'Reshoring: Does home country matter?', conference presentation, *Purchasing and Supply Chain Management: Fostering Innovation*, 27th International Purchasing and Supply, Education and Research Association Conference, 25–28 March, Athens.

Wiesmann, B., Snoei, J. R., Hilletofth, P. and Eriksson, D. (2017), 'Drivers and barriers to reshoring: A literature review on offshoring in reverse', *European Business Review*, Vol. 29, No. 1, pp. 15–42.

Annexes

Annex A: Multilingual glossary

English

1	Back-reshoring	46	‘Move R&D back’
2	Backreshoring	47	‘Relocate R&D’
3	Backshoring	48	‘Repatriate R&D’
4	Reshoring	49	‘Return R&D’
5	Back-sourcing	50	‘Transfer R&D’
6	Backsourcing	51	‘Transfer to local supplier’
7	De-internationalisation	52	‘Transfer to local suppliers’
8	Divestment	53	‘Transfer to national supplier’
9	Home-shoring	54	‘Transfer to national suppliers’
10	Homeshoring	55	‘Return to local supplier’
11	In-shoring	56	‘Return to local suppliers’
12	Inshoring	57	‘Return to national supplier’
13	Manufacturing relocation	58	‘Return to national suppliers’
14	Near-shoring	59	‘Supply basis back home’
15	Right-shoring	60	‘Supplier back home’
16	Nearshoring	61	‘Supplier back home’
17	Rightshoring	62	‘Leave local suppliers’
18	On-shoring	63	‘Leave local supplier’
19	Onshoring	64	‘Leave offshore supplier’
20	Re-industrialisation	65	‘Leave offshore suppliers’
21	Reindustrialisation	66	‘Leave foreign supplier’
22	Reshore	67	‘Leave foreign suppliers’
23	Re-shoring	68	‘Cut off local suppliers’
24	Reshoring	69	‘Cut off local supplier’
25	Reverse globalisation	70	‘Cut off offshore supplier’
26	Reverse relocation	71	‘Cut off offshore suppliers’
27	‘Move back manufacturing’	72	‘Cut off foreign supplier’
28	‘Move manufacturing back’	73	‘Cut off foreign suppliers’
29	‘Move production back’	74	‘Transfer out-sourced services’
30	‘Move back production’	75	‘Transfer outsourced services’
31	‘Relocate production’	76	‘Reduce offshore outsourcing’
32	‘Relocate manufacturing’	77	‘Reduce global sourcing’
33	‘Repatriate production’	78	‘Repatriate jobs’
34	‘Repatriate manufacturing’	79	‘Return jobs’
35	‘Return production’	80	‘Move back jobs’
36	‘Return manufacturing’	81	‘Move jobs back’
37	‘Transfer production’	82	‘Repatriate foreign jobs’
38	‘Transfer manufacturing’	83	‘Return foreign jobs’
39	‘Move back services’	84	‘Move back foreign jobs’

40	'Move services back'	85	'Move foreign jobs back'
41	'Relocate services'	86	'Repatriate offshore jobs'
42	'Repatriate services'	87	'Return offshore jobs'
43	'Return services'	88	'Move back offshore jobs'
44	'Transfer services'	89	'Move offshore jobs back'
45	'Move back R&D'		

Estonian

- Reshoring/reshore: English term is used
- Onshoring/reshore: English term is used
- Reshoring/backshore: English term is used
- Backsourcing/backsource: English term is used
- Inshoring/inshore: English term is used
- Onshoring: English term is used
- De-internationalisation: *tagasitoomine* (or English term is used)
- Home-shoring/homeshore: English term is used
- Repatriate production/repatriate manufacturing: *agasitoomine kodumaale* (or English term is used)
- Reverse globalisation: *deglobaliseerimine* (or English term is used)

Finnish

- Reshoring/reshore: *työn kotiuttaminen* (or English term is used)
- Onshoring/reshore: *ulkoistaminen* (or English term is used)
- Reshoring/backshore: *työn kotiuttaminen* (or English term is used)
- Backsourcing/backsource: *ulkoistuksen purkaminen* (or English term is used)
- Inshoring/inshore: *työn kotiuttaminen* (or English term is used)
- Onshoring: *ulkoistaminen* (or English term is used)
- De-internationalisation: English term is used
- Home-shoring/homeshore: *työn teettäminen etänä* (or English term is used)
- Repatriate production/repatriate manufacturing: *tuotannon kotiuttaminen* (or English term is used)
- Reverse globalisation: *käänteinen globalisaatio* (or English term is used)
- Reverse relocation: *paluumuutto* (or English term is used)

French

- Reshoring, onshoring, reshoring, inshoring, manufacturing repatriation, reverse relocation: *la relocalisation, la relocalisation économique, le rapatriement, rapatrier, la relocalisation inversée, Inverser la relocalisation, la délocalisation inversée, la co-localisation inversée, colocalisation inversée* (all these French terms have the same meaning, i.e. reshoring)
- There are also a few terms directly taken from English which can also be used in French, although they are not used frequently: *l'offshoring/l'onshoring/le nearshoring/l'inshoring*
- Other terms:
  - *le 'backsourcing'* = French word for insourcing, the opposite of outsourcing
  - *la dé-internationalisation* = French word for de-internationalisation
  - *le télétravail/le 'homeshoring'* = French terms for Home-shoring/Homeshore
  - *la mondialisation inversée/renverser la mondialisation* = French terms for reverse globalisation

German

- Reshoring/reshore: English term is used
- Inshoring/inshore: English term is used
- Reverse relocation: *Produktionsrückverlagerung, Rückverlagerung, Wiedereingliederung, Wiedereinlagerung, Wiedereingliederung, umgekehrte Standortverlagerung*
- Reverse globalisation: *umgekehrte Globalisierung*
- Onshoring: The term is also used, but not as an exact synonym to reshoring, etc. It is used for relocations within the same country. The German term for this is *Inlandsverlagerung*.

Polish

- Reshoring/reshore: *repartacja dzialalnosci/produkcji*
- Onshoring/reshore: *przeniesc dzialanosc/produkcje*
- Reshoring/backshore: *repartacja dzialalnosci/produkcji*
- Backsourcing/backsource: *repartacja pracy*
- Inshoring/inshore: *przeniesienie dzialanosci/produkcji*
- Onshoring: *przeniesc dzialanosc na mala odleglosc* (or English term is used)
- De-internationalisation: *de-internacjonalizacja/wycofanie si*
- Home-shoring/homeshore: English term is used

- Repatriate production/repatriate manufacturing: *przeniesc produkcje z powrotem do kraju*
- Reverse globalisation: *odwrocona globalizajca*
- Reverse relocation: *odwrocona relokacja*

Portuguese

- Reshoring/reshore: English term is used
- Onshoring/reshore: English term is used
- Reshoring/backshore: English term is used
- Backsourcing/backsource: *terceirizar processos de um fornecedor dentro do país* (or English term is used)
- Inshoring/inshore: *terceirização dentro do país* (or English term is used)
- Onshoring: *desinternacionalização*
- De-internationalisation: English term is used
- Home-shoring/homeshore: *repatriar a produção*
- Repatriate production/repatriate manufacturing: *globalização inversa*
- Reverse globalisation: *deslocalização reversa*
- Reverse relocation: English term is used

Romanian

- Reshoring/reshore: *Activitati tip reshore* (or English term is used)
- Onshoring/reshore: *Activitati tip onshore* (or English term is used)
- Reshoring/backshore: *Activitati tip backshore* (or English term is used)
- Backsourcing/backsource: *Activitati de tip backsource* (or English term is used)
- Inshoring/inshore: *Activitati de tip inshore* (or English term is used)
- Onshoring: *Activitati de tip onshore* (or English term is used)
- De-internationalisation: *De-internationalizare*
- Home-shoring/homeshore: *Activitati de tio homeshore* (or English term is used)
- Repatriate production/repatriate manufacturing: *Productie repatriata*
- Reverse globalisation: *Globalizare inversa*
- Reverse relocation: *Relocare inversa*

Serbo-Croatian/Bosnian

- Onshore: *na kopnu, kopneno, na obali*
- Inshore: *priobalno*
- De-internationalisation: *internacionalizacija*
- Repatriate production: *vratiti proizvodnju, vracena proizvodnja*
- Reverse globalisation: *obrnuta globalizacija*
- Reverse relocation: *obrnuto premjestanje*

Slovak

- Reshoring/reshore: *premiestnenie/premiestnit/ relokacia*
- Onshoring/reshore: *presun, prestahovat, premiestnit*
- Reshoring/backshore: *navrat vyroby/firmy/spolocnosti do povodnej krajiny*
- Backsourcing/backsource: *navrat sluzieb spat do firmy/spolocnosti*
- Inshoring/inshore: English term is used
- De-internationalisation: *de-internacionalizacia*
- Home-shoring/homeshore: *praca z domu*
- Repatriate production/manufacturing: *vratit/ repatriovat vyrobu/produkciu*
- Reverse globalisation: *reverzna/spatna/obratena globalizacia*
- Reverse relocation: *reverzna/spatna/obratena relokacia/premiestnenie*

Spanish

- Reshoring/reshore: English term is used
- Onshoring/reshore: English term is used
- Reshoring/backshore: English term is used
- Backsourcing/backsource: English term is used
- Inshoring/inshore: *externalizar procesos a un proveedor dentro del país* (or English term is used)
- Onshoring: English term is used
- De-internationalisation: *desinternacionalización*
- Home-shoring/homeshore: English term is used
- Repatriate production/repatriate manufacturing: *repatriar la producción/repatriar la manufactura*
- Reverse globalisation: *globalización inversa*
- Reverse relocation: *reubicación inversa*

Annex B: NACE codes for industries within the 'Manufacturing' sector

Code	Subsector
C10	Manufacture of food products
C11	Manufacture of beverages
C13	Manufacture of textiles
C14	Manufacture of wearing apparel
C15	Manufacture of leather and related products
C16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
C17	Manufacture of paper and paper products
C18	Printing and reproduction of recorded media
C20	Manufacture of chemicals and chemical products
C21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
C22	Manufacture of rubber and plastic products
C23	Manufacture of other non-metallic mineral products
C24	Manufacture of basic metals
C25	Manufacture of fabricated metal products, except machinery and equipment
C26	Manufacture of computer, electronic and optical products
C27	Manufacture of electrical equipment
C28	Manufacture of machinery and equipment n.e.c.
C29	Manufacture of motor vehicles, trailers and semi-trailers
C30	Manufacture of other transport equipment
C31	Manufacture of furniture
C32	Other manufacturing
C33	Repair and installation of machinery and equipment
C35	Industrial and commercial machinery and computer equipment

Annex C: Reshoring motivations

1	Automation of production process	29	Know how in the home country
2	Brand repositioning	30	Labour costs' gap reduction
3	Brexit	31	Lack of ex ante location planning
4	Change in firm's business strategy (e.g. new business area, vertical integration, etc.)	32	Adoption of lean manufacturing
5	Change in total costs of sourcing	33	Local employees' poor skills
6	Changes in taxation	34	Logistics costs
7	Adoption of clean technology	35	Loyalty to the home country
8	Collaboration with suppliers	36	'Made in' effect
9	Competitive pressure	37	Need for greater organisational flexibility
10	Corporate social responsibility image	38	Offshored activities' control complexity
11	Cultural and linguistic differences in the host country	39	Poor quality of offshored production
12	Customer demand increase	40	Production sustainability
13	Customs issue	41	Proximity to customers
14	Reduce delivery time	42	Proximity to suppliers
15	Duties	43	Production quality control
16	Global economic crisis	44	R&D vicinity
17	Energy costs in the host country	45	Rationalisation of costs
18	Exchange rate risk in the host country	46	Reduction of administrative costs
19	Firm's global reorganisation	47	Retailer/customer pressure
20	Government support for relocation	48	Risk of brand counterfeiting
21	High inventory costs in the host country	49	Size of the lots
22	Implementation of strategies based on product/process innovation	50	Streamlining of supply chain
23	Improve customer service	51	Strengthen the brand image
24	Improvement in efficiency	52	Termination of earlier supply relationships
25	Increased home country manufacturing productivity	53	Unattractiveness of the offshore market
26	Increased production costs in the host country	54	Union pressure in the home country
27	Intellectual property protection	55	Untapped production capacity in the home country
28	IT security	56	Willingness to maintain employment in the home country

Annex D: Examples of reshoring cases fiches

In total, 253 reshoring cases have been identified during this project. A full list of the cases is available at https://reshoring.eurofound.europa.eu/reshoring-cases with links to individual case details and descriptions (sample listings below). The user can choose the order of the cases by clicking on the preferred heading (company name; company country; announcement date; offshored to; reshored to; sector; job gains).

Company name	Company country	Announcement date	Offshored to	Reshored to	Sector	Job gains
Saint-Gobain PAM	France	15/11/2018	Germany	France	C24 - Manufacture of basic metals	
Pegatron Corporation	Taiwan	09/11/2 018	China	Czech Republic	C26 - Manufacture of computer, electronic and optical products	
Schaeffler Technologies AG & Co. KG	Germany	06/11/2018	United Kingdom	Germany	C28 - Manufacture of machinery and equipment n.e.c.	
Rīgas Dzirnavnieks AS	Latvia	02/11/2018	Estonia	Latvia	C10 - Manufacture of food products	
Tikkurila	Finland	03/10/2018	Denmark	Finland	C20 - Manufacture of chemicals and chemical products	
Volvo car	Sweden	19/07/2018	China	Sweden	C29 - Manufacture of motor vehicles, trailers and semi-trailers	
Amps Electric Bikes Ltd	United Kingdom	16/07/2018	China	United Kingdom	C30 - Manufacture of other transport equipment	
SealSkinz	United Kingdom	15/07/2018	Bulgaria	United Kingdom	C32 - Other manufacturing	15
Credit Suisse Group AG	Switzerland	27/06/2018	Russia	United Kingdom	K64 - Financial service activities, except insurance and pension funding	1
Stille AB	Sweden	20/06/2018	United States	Sweden	C32 - Other manufacturing	

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Reshoring – namely the relocation of value chain activities back to the home country or its nearby region – has attracted an increasing interest both among scholars and policymakers. The European Reshoring Monitor is a collaborative project between Eurofound and a consortium of Italian universities aiming to monitor reshoring cases in Europe.

This 2018 annual report provides a holistic and longitudinal overview of EU reshoring trends and characteristics by examining reshoring cases (from 2014 to 2018), policy initiatives, and the related literature.

In quantitative terms, reshoring appears to be substantially stable, while qualitatively significant changes emerge relative to target countries, sectors and motivations. Reshoring flows have broadened to encompass northern and eastern Europe. The concentration in labour-intensive sectors observed in the past has declined. Cost factors that dominated the first wave of the phenomenon have today given way to factors linked to the global reorganisation of value chain activities.

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency whose role is to provide knowledge in the area of social, employment and work-related policies. Eurofound was established in 1975 by Council Regulation (EEC) No. 1365/75 to contribute to the planning and design of better living and working conditions in Europe.

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