



# European Survey Analysis

Issues faced by SME Managers when considering the introduction of robots/AI into their organisation

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## Introduction

The Robots & SMEs project will be developing (to be launched in August 2021) a series of training and support tools for SME Managers to enable them to assess the value of robots for their business development and sustainability and then effectively introduce them.

The first phase of the project has been to study and determine the issues faced by SME managers when considering the introduction of robots/AI into their organisation and make recommendations as to what strategies they need to adopt to gain the best advantage from their introduction.

To identify the issues an on-line question comprising 26 questions, intended for SME Managers that aimed to analyze and contextualize the introduction of robots and AI in their business, assessing their current state and the opinion of SME Managers in this regard. They were asked to respond according to their direct experience or specific knowledge regarding the topics addressed. The method for collecting answers was Google Forms.

As a companion to this Survey Report the project undertook a desk research exercise that was carried out in order to ascertain the state of the art of robots/AI introduction in Partner countries (which can be downloaded from [www.robsme.com](http://www.robsme.com)).

## Conclusions

The total of 137 responses were received from 12 countries – the questions and detailed analysis of the answers can be found in the **OVERALL RESULTS** Section.

The first conclusion that can be drawn from the Survey results is that In general, in all the countries surveyed there is an opinion that the introduction of robots and AI technology will affect the 'human' workforce in respondent's organizations. The most verified answer in four out of the five countries was Somewhat Agree (even though Ireland's most chosen option was Strongly Agree), which allows one to conclude that, although there is a notion that the robotization of all economic devices under study is inevitable, there is not a very high degree of certainty on behalf of SME Managers. This may be due to the type of business of each one (which may require a more "traditional" or manual modus operandi, which cannot be replaced by a machine) or some uncertainty regarding the difficulties of companies in each country in gather all the conditions to implement robotic and AI systems. However, with the concrete purpose of the question being to assess the impact on the human workforce, respondents may have expressed the fact that the human workforce of their organizations is, in a way, technically and socially prepared to deal with the arrival of the machines.

The second conclusion that can be drawn is that SME managers, in general, believe that robotic and AI systems will have a significant impact on the efficiency of their companies, with several countries surpassing 30% in Agree and Strongly Agree responses and not many negative responses (none has exceeded 20%). This means that SME managers are aware that technology can make their productive and operational process more effective, making room for beneficial investments in other areas, more linked to customer support, human relations, creativity, advertising, etc.



The third conclusion is that most SME Managers are not fully aware of the potential impact of robots and AI on their workforce, since most voted response in all countries is Agree, with negative responses having very little expression. The feeling that their peers are still at a rudimentary stage concerning knowledge about robots and AI may lead to some skepticism regarding the adoption of these instruments in the various countries surveyed.

The fourth conclusion that can be drawn is that most respondents think they have staff within their organization with the knowledge and insights they need to help to implement innovative technologies in the workplace, which is proven by the considerable amount of Agree and Somewhat Agree responses. This indicates that the difficulties in implementing robots and AI in the respondents' organizations may be related to factors other than the lack of knowledge on the part of the human workforce (possibly financial).

The fifth conclusion is that in all countries there was an agreement regarding the receptivity of SME managers to be provided with an online mentoring service to help them understand the issues surrounding robotics and artificial intelligence (as well as in which way they could influence their business), including a best practices guide with real examples from other companies, which ends up validating the purpose of the project itself. The maximum percentage of the sum of negative responses did not exceed 36% in the worst-case scenario.

The sixth conclusion. When asked if human impact factors must be considered when making decisions about the implementation of technology, as the efficiency gains provided by robots and AI cannot be compared to employee experience, skills and other people factors, most SME managers were clear, being Agree the most answer in three out of the five countries.

The seventh point to underline is that most of the surveyed SME managers feel that robotization and AI will affect their business in the next 5 years. The most voted answer in the five countries was "Somewhat Agree", which reckons some doubts (they probably feel divided between financial conditions to implement such technologies, government support and the business's own propensity to adopt them).

The eighth conclusion shows that there is a predominance of negative responses (68% in Portugal, 85% in Bulgaria, 73% in the UK, 88% in Slovakia and 79% in Ireland), which means that the majority of SME managers surveyed do not consider that Robotization and AI are a future threat for their business. In this chapter, it would be interesting to discover the reasons for this disagreement, since it may go through several factors (work that can only be done by humans, lack of financial power to invest, dissenting government policy, etc.). When SME Managers were asked if their business is suitable for introducing robots/AI to replace humans in certain processes, they stated that although there is a balance between negative and positive responses in most of the countries surveyed, in Bulgaria, UK, Slovakia and Ireland the percentages of positive responses ended up exceeding, although the most voted answer was "Somewhat Agree" in all of them, except in Ireland (Agree got 44% of the votes). These results allow one to better understand the answers given in other sections of the questionnaire, as they grant to separate in a certain way the businesses that simply will never be able to adopt new technologies given their human nature.

Then, when asked if the introduction of robots/AI could give your company a competitive advantage over other companies in its sector, apart from Portugal, the majority of respondents believe that the introduction of robots/AI could give their company a competitive advantage over other companies in its sector. In regard to SME managers opinion when asked if they believe that the associated consequences to the labour forces make the introduction of robots/AI troubling, the majority of the respondents agree that there are other factors that



could compromise the arrival of technologies to their companies apart from workforce issues. Finally, when asked if this survey was worth their time and attention, SME managers agreed that it was.

The third section of this questionnaire (open-ended questions), requires broader reflection by SME managers, was created in order to analyze their opinion in more detail regarding some other aspects in regard to the adoption of robots/AI by SMEs.

The first conclusion was that most of the respondents think that there are opportunities offered by emerging technologies to both evolve their business model and to improve the relationship with their employees. Among the examples given, computerized machinery, robotization of production processes, medical robots, co-bots, chatbots and AI in decision-making processes were the most referred examples of opportunities offered by this newly arrived emerging technologies. It should be noted that these technologies across several sectors of the economy and different branches of business, which proves that all sectors can benefit from these technologies, according to the respondents.

When asked if respondents' companies already started implementing steps towards digitalization, robotization and/or AI, it can be observed that most of their SME managers have not yet started implementing steps towards digitalization, robotization and / or AI. Of the cases where this process has already started, the examples given went through buying and using automatic CNC machines, AI to fine-tune customer preferences, internet-based products, data processing, Computerization of production control, robotized production systems, etc. SME managers were asked what were the three biggest barriers the implementation of robots and AI in their business. According to the majority of them, this is mainly linked to lack of information regarding funding and legislation, lack of qualified workforce, lack of suitability of the business and lack of awareness of opportunities.

In regard of training/mentoring on robotization/AI in the inquired companies, most of the SME managers stated that training would be really important in order to form current and future employees, as they would become more aware and skilful regarding new technologies to keep up with markets' constant demands. Since most of the countries stated that there are skill gaps due to poor training in schools/universities, this is also something that should be addressed by the project. The project will offer SME managers a guide to useful training tools.

Concerning the existing policies and available government support towards SMEs' robotization, the high number of Don't know / No opinion responses should be highlighted, which can easily be dissolved into negative responses by SME managers when asked if they are aware of existing policies and available government support towards SME's robotization or if the policymakers in their countries are striving to stimulate its implementation in SMEs. Most responses from the four countries focused on the same points: policymakers are not striving enough in order to implement new technologies in the workplace, also there is a high degree of ignorance on behalf of SME managers regarding the existing legislation and support.

The same question was applied to EU policy concerning robots/AI implementation and, when asked if they were aware of it and if the existing policies could be improved and more completely articulated to SMEs, the respondents stated that they are not aware of the EU policy concerning robots / AI implementation in SMEs. Regarding measures they feel should be taken in this matter, they state that EU should include more robots / AI development funding programs, more investment in training programs, tax benefits for companies using new technologies, more informing events and workshops in companies, among others.



The last section was dedicated to finding out if the respondents would be interested to be kept up to date with the project developments and if so, they were given the opportunity to opt-in to the project contact database. The majority of respondents (62%) agreed and are now ready to receive a deeper approach on behalf of the project team.

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## 1. Overall Results

### Total of answers: 137

Portugal: 25

Bulgaria: 27

UK: 27

Slovakia: 24

Ireland: 34

### Section I - Respondents' Profile

#### Country

**Portugal:** 100% of the respondents' businesses are from Portugal.

**Bulgaria:** 100% of the respondents' businesses are from Bulgaria.

**UK:** 38% from the UK; 18% from Spain; 12% from Sweden; 12% from North Macedonia; 4% from Pakistan; 4% from Czech Republic; 4% from Italy; 4% from Ireland and 4% from Israel.

**Slovakia:** 100% of the respondents' businesses are from Slovakia.

**Ireland:** 100% of the respondents' businesses are from Ireland.

#### Gender

**Portugal:** 64% (16) of the respondents are men, 36% (9) are women.

**Bulgaria:** 37% (10) of the respondents are men, 63% (17) are women.

**UK:** 66, 7% (18) of the respondents are men, 33, 3% (9) are women.

**Slovakia:** 95, 8% (23) of the respondents are men, 4, 2% (1) are women.

**Ireland:** 61,8% (21) of the respondents are men, 38,2% (13) are women.

#### Age

**Portugal:** 60% (15) of the respondents are in the 36-50 y.o. range; 36% (9) are in the 26-35 and only 4% (1) is in the 51-64.



**Bulgaria:** 37% (10) of the respondents are in the 36-50 y.o. range; 33, 3% (9) are in the 51-64, 18, 5% (5) are in the 26-35 and 11, 1% (3) are 65+ y.o. .

**UK:** 51,9% (14) of the respondents are part of the 51-64 y.o. range; 22,2% (6) are in the 36-50, 11,1% (3) are 26-35, another 11,1% (3) are 65+ and only 3,7% (1) is 19-25.

**Slovakia:** 45,8% (11) are 36-50 y.o. ; 25% (6) are 26-35; 20,8% (5) are 51-64; 4,2% (1) are 65+ and also 4,2% (1) are 19-25.

**Ireland:** 64,7% (22) are 51-64 y.o.; 32,4% (2) are 36-50 y.o. and 2,9% (1) are 26-35 y.o..

#### Size of business (number of employees)

**Portugal:** 56% (14) of the companies have 1 to 9 employees; 28% (7) have 10 to 49; 12% (3) have 50-99 and only 4% (1) have 100-249.

**Bulgaria:** 88, 8 % (24) of the Bulgarian respondents have 1 to 9 employees. Each one of the remaining three respondents has 10-49, 100-249 and 250+ employees.

**UK:** 63% (17) of the companies have 1 to 9 employees; 18,5% (5) have 100-249; 14,8% (4) have 10-49 and 3, 7% (1) has 250+ employees.

**Slovakia:** 45, 8% (11) of the companies have 1 to 9 employees; 41, 7% have 10-49 (10) and only 4, 2% (1) for each of the other options (50-99, 100-249 and 250+).

**Ireland:** 38,2% (13) of the companies have 1 to 9 employees; 8,8% (3) have 10 to 49; 2,9% (1) have 50 to 99 employees; 11,8% (4) have 100 to 249 employees and 38,2% (13) have 250+ employees.

#### Economic sector

**Portugal:** 24% (6) of the companies are part of the Electric and Electronic industries. 16% (4) belong to the Health sector, 8% (2) to Tourism, Construction and Textiles, Fashion and Creative industries. Eight other sectors share a 4% (1) percentage each.

**Bulgaria:** 14, 8% (4) of the organisations are NGOs; 11, 1 % (3) are from the Tourism sector. Each one of the remaining 25 answers came from different sectors, such as Environment, Consulting Services, Finance, among others.

**UK:** 29, 6% (8) of the companies responding to the UK survey work on consulting, training and education services; 18,5% (5) of the organisations work on Social Economy. Another 18,5% (5) of the companies belong to the Automotive Industry, and 7,4% (2). Each one of the remaining answers came from different sectors, such as Electrical and Electronic Engineering, Agriculture, Metal and Locksmith,

**Slovakia:** 12, 5% (3) of the Slovakian companies belong to the Electric and Electronic sector. Another 12, 5% (3) belong to the Health sector. Each one of the remaining 18 respondents (75%) come from different sectors, such as Sports, Consulting, R&D, Education, among others.

**Ireland:** 17,6% (6) of the Irish companies responding to the survey come from the Electrical and Electronic Engineering Industries; 8,8% (3) work on Healthcare Industries and the remaining 73,6% are divided by other sectors as Aeronautics, Automotive, Biotechnology, Chemicals, Constructions, Cosmetics, among other industries.

#### Country Analysis:



**Portugal:** All of the 25 respondents to the questionnaire have their companies headquartered in Portugal, the majority are men (64%), and a large part of the SME Managers under investigation is in the 36-50 age group. As for their companies, 56% are small companies (1-9 employees), which corresponds to the vast majority of companies present in the Portuguese industrial fabric (95%). The greatest diversity of responses occurred in the Economic Sector since, besides Electric and Electronic industries (24%) and Health sector (16%), eight other sectors got a 4% percentage.

**Bulgaria:** All of the 27 respondents to the questionnaire have their companies headquartered in Bulgaria, most of them are women (67%), around 70% are between 36 and 64 y.o.. As for the respondents' companies, almost 90% are small enterprises (1-9 workers) mainly from the tertiary/services sector.

**UK:** The questionnaire activity in the UK was the only one that brought responses from foreign countries (the majority coming from EU countries), 66,7% are male, more than half are between 51 and 64 years old and 63% are from small companies (1- 9 employees). Half of the respondents come from companies linked to the services sector, the other half are linked to the primary and secondary sectors.

**Slovakia:** 100% of the respondents in Slovakia have their businesses headquartered in the country, 95, 8% are men, almost half of them (45, 8%) are 36-50 y.o.. As for their organisations, almost 86% are from SMEs (45, 8% have 1-9 employees and 41, 7% have 10-49). The sector of activity of the responding Slovak organizations varies greatly, with the sectors with the most responses coming from the Electric and Electronic sector (12.5%) and Health (12.5%), with considerable heterogeneity.

**Ireland:** 100% of the respondents in Ireland have their businesses headquartered in the country, 61,8 % are men, most of the total respondents (64,7%) are 51-64 y.o.. As for their organisations, 47% represent SMEs (38,2% have 1-9 employees and 8,8% have 10-49). The sector of activity of the responding Irish organizations varies greatly since only Electrical and Electronic Engineering (17,6%) and Healthcare Industries (8,8%) have more than one response.

#### Global Analysis:

Only about 1% of the respondents are from non-EU countries, which allows this sample to accurately reflect the current scenario in the EU. About 64% of responses are from men. The age group with the most response is 51-64 y.o. (ca. 40%). About 60% of the respondents represent Micro Enterprises (1-9 employees), ca. 20% represent Small Enterprises (10-49 employees) and the remaining 20% represent Medium-sized and Big Enterprises. Respondents' sectors of activity vary widely. The least represented sector is the primary sector (agriculture, fishing) with only ca. 1% of responses, as opposed to the secondary sector (industry) with ca. 40%. The tertiary sector (services) is the most represented, with ca. 60%.



## Section II – Close-ended questions

### 6. The introduction of robots and AI technology will affect the 'human' workforce in your organization.

#### Portugal:

Strongly Disagree – 8%

Disagree – 24%

Somewhat Disagree – 16%

Somewhat Agree – 20%

Agree – 16%

Strongly Agree – 16%

#### Bulgaria:

Strongly Disagree – 0 %

Disagree – 7 %

Somewhat Disagree – 4%

Somewhat Agree – 41 %

Agree – 26 %

Strongly Agree – 22 %

#### UK:

Strongly Disagree – 0 %

Disagree – 4 %

Somewhat Disagree – 7 %

Somewhat Agree – 41 %

Agree – 30 %

Strongly Agree – 18 %

#### Slovakia:

Strongly Disagree – 0 %

Disagree – 13 %

Somewhat Disagree – 4 %

Somewhat Agree – 37 %

Agree – 29 %

Strongly Agree – 17 %

#### Ireland:

Strongly Disagree – 0%



Disagree – 6%  
Somewhat Disagree – 6%  
Somewhat Agree – 18%  
Agree – 29%  
Strongly Agree – 41%

**Global Analysis:** In general, in all the countries surveyed there is an opinion that the introduction of robots and AI technology will affect the 'human' workforce in respondent's organizations. The most verified answer in all countries was **Somewhat Agree**, which allows one to conclude that, although there is a notion that the robotization of all economic devices under study is inevitable, there is not a very high degree of certainty on behalf of SME Managers. Ireland was the only country in which **"Strongly Agree"** was the most voted option.

## 7. The introduction of robots and AI technology will have a significant impact on the efficiency of your organization.

Strongly Disagree – 4%  
Disagree – 20%  
Somewhat Disagree – 8%  
Somewhat Agree – 24%  
Agree – 36%  
Strongly Agree – 8%

### **Bulgaria:**

Strongly Disagree – 0 %  
Disagree – 7 %  
Somewhat Disagree – 7 %  
Somewhat Agree – 34 %  
Agree – 37 %  
Strongly Agree – 15 %

### **UK:**

Strongly Disagree – 0 %  
Disagree – 4 %  
Somewhat Disagree – 11 %  
Somewhat Agree – 48 %  
Agree – 15 %  
Strongly Agree – 22 %



**Slovakia:**

Strongly Disagree – 4 %  
Disagree – 4 %  
Somewhat Disagree – 0 %  
Somewhat Agree – 29 %  
Agree – 46 %  
Strongly Agree – 17 %

**Ireland:**

Strongly Disagree – 0%  
Disagree – 3%  
Somewhat Disagree – 5%  
Somewhat Agree – 27%  
Agree – 38%  
Strongly Agree – 27%

**Global Analysis:** SME managers, in general, believe that robotic and AI systems will have a significant impact on the efficiency of their companies, with several countries surpassing 30% in "Agree" and "Strongly Agree" responses and not many negative responses (none has exceeded 20%).

**8. Most SME Managers are not fully aware of the potential impact of robots and AI on their workforce.**

**Portugal:**

Strongly Disagree – 0%  
Disagree – 4%  
Somewhat Disagree – 12%  
Somewhat Agree – 36%  
Agree – 20%  
Strongly Agree – 28%

**Bulgaria:**

Strongly Disagree – 0 %  
Disagree – 0 %  
Somewhat Disagree – 4 %  
Somewhat Agree – 22 %  
Agree – 52 %



Strongly Agree – 22 %

**UK:**

Strongly Disagree – 0 %

Disagree – 0 %

Somewhat Disagree – 7 %

Somewhat Agree – 19 %

Agree – 44 %

Strongly Agree – 30 %

**Slovakia:**

Strongly Disagree – 4 %

Disagree – 0 %

Somewhat Disagree – 0 %

Somewhat Agree – 17 %

Agree – 67 %

Strongly Agree – 12 %

**Ireland:**

Strongly Disagree – 0%

Disagree – 0%

Somewhat Disagree – 0%

Somewhat Agree – 21%

Agree – 47%

Strongly Agree – 32%

**Global Analysis:** Most SME Managers are not fully aware of the potential impact of robots and AI on their workforce, since most voted response in all countries is **Agree**, with negative responses having very little expression.

**9. The staff within your organisation have the knowledge and insights they need to help to implement innovative technologies in the workplace.**

**Portugal:**

Strongly Disagree – 4%

Disagree – 16%

Somewhat Disagree – 24%



Somewhat Agree – 20%

Agree – 32%

Strongly Agree – 4%

**Bulgaria:**

Strongly Disagree – 0 %

Disagree – 26 %

Somewhat Disagree – 22 %

Somewhat Agree – 30 %

Agree – 22 %

Strongly Agree – 0 %

**UK:**

Strongly Disagree – 4 %

Disagree – 11 %

Somewhat Disagree – 11 %

Somewhat Agree – 33 %

Agree – 33 %

Strongly Agree – 7 %

**Slovakia:**

Strongly Disagree – 4 %

Disagree – 13 %

Somewhat Disagree – 4 %

Somewhat Agree – 21 %

Agree – 38 %

Strongly Agree – 21 %

**Ireland:**

Strongly Disagree – 0%

Disagree – 18%

Somewhat Disagree – 18%

Somewhat Agree – 32%

Agree – 24%

Strongly Agree – 9%



**Global Analysis:** Most respondents think they have staff within their organization with the knowledge and insights they need to help to implement innovative technologies in the workplace, which is proven by the considerable amount of **Agree** and **Somewhat Agree** responses.

**10. Your company has strategies in place to deal with the conflict between the 'human' and 'robot' workforce.**

**Portugal:**

Strongly Disagree – 12%

Disagree – 24%

Somewhat Disagree – 20%

Somewhat Agree – 36%

Agree – 8%

Strongly Agree – 0%

**Bulgaria:**

Strongly Disagree – 19 %

Disagree – 59 %

Somewhat Disagree – 14 %

Somewhat Agree – 4 %

Agree – 4 %

Strongly Agree – 0 %

**UK:**

Strongly Disagree – 15 %

Disagree – 26 %

Somewhat Disagree – 22 %

Somewhat Agree – 11 %

Agree – 19 %

Strongly Agree – 7 %

**Slovakia:**

Strongly Disagree – 29 %



Disagree – 29 %  
Somewhat Disagree – 13 %  
Somewhat Agree – 25 %  
Agree – 4 %  
Strongly Agree – 0 %

**Ireland:**

Strongly Disagree – 21%  
Disagree – 44%  
Somewhat Disagree – 6%  
Somewhat Agree – 9%  
Agree – 21%  
Strongly Agree – 0%

**Global Analysis:** With regard to strategies in place to deal with the conflict between the 'human' and 'robot' workforce, most respondents do not seem to have developed a plan to deal with this type of conflict. **“Disagree”** was the most chosen option in almost all countries.

**11. It would be helpful if you could be provided with an online mentoring service to help you understand the issues surrounding robotics and artificial intelligence (as well as in which way they could influence your business), including a best practice guide with real examples from other companies.**

**Portugal:**

Strongly Disagree – 0%  
Disagree – 16%  
Somewhat Disagree – 20%  
Somewhat Agree – 40%  
Agree – 12%  
Strongly Agree – 12%

**Bulgaria:**

Strongly Disagree – 0 %  
Disagree – 0 %  
Somewhat Disagree – 4 %



Somewhat Agree – 26 %

Agree – 56 %

Strongly Agree – 15 %

**UK:**

Strongly Disagree – 0 %

Disagree – 4 %

Somewhat Disagree – 4 %

Somewhat Agree – 33 %

Agree – 48 %

Strongly Agree – 11 %

**Slovakia:**

Strongly Disagree – 4 %

Disagree – 17 %

Somewhat Disagree – 8 %

Somewhat Agree – 13 %

Agree – 50 %

Strongly Agree – 8 %

**Ireland:**

Strongly Disagree – 3%

Disagree – 9%

Somewhat Disagree – 0%

Somewhat Agree – 15%

Agree – 38%

Strongly Agree – 35%

**Global Analysis:** In all countries, there was an agreement regarding the receptivity of SME managers in be provided with an online mentoring service to help them understand the issues surrounding robotics and artificial intelligence (as well as in which way they could influence their business), including the best practices guide with real examples from other companies, which ends up validating the purpose of the project itself.



12. Human impact factors must be considered when making decisions about the implementation of technology, as the efficiency gains provided by robots and AI cannot be compared to employee experience, skills and other people factors.

**Portugal:**

Strongly Disagree – 0%  
Disagree – 4%  
Somewhat Disagree – 12%  
Somewhat Agree – 36%  
Agree – 28%  
Strongly Agree – 20%

**Bulgaria:**

Strongly Disagree – 0 %  
Disagree – 4 %  
Somewhat Disagree – 0 %  
Somewhat Agree – 15 %  
Agree – 55 %  
Strongly Agree – 26 %

**UK:**

Strongly Disagree – 0 %  
Disagree – 0 %  
Somewhat Disagree – 4 %  
Somewhat Agree – 22 %  
Agree – 40 %  
Strongly Agree – 33 %

**Slovakia:**

Strongly Disagree – 0 %  
Disagree – 0 %  
Somewhat Disagree – 8 %  
Somewhat Agree – 38 %



Agree – 50 %

Strongly Agree – 4 %

**Ireland:**

Strongly Disagree – 0%

Disagree – 0%

Somewhat Disagree – 0%

Somewhat Agree – 9%

Agree – 35%

Strongly Agree – 56%

**Global Analysis:** The human skills, experience and other people factors that only human workforce can offer to a company is of utmost importance, according to the majority of the respondents. When asked if human impact factors must be considered when making decisions about the implementation of technology, most SME managers were clear, being **Agree** the most upvoted answer in 3 of the 5 countries (even though in Ireland the most upvoted answer was **Strongly Agree**).

**13. The robotization and AI will affect your business in the next 5 years.**

**Portugal:**

Strongly Disagree – 8%

Disagree – 16%

Somewhat Disagree – 24%

Somewhat Agree – 32%

Agree – 0%

Strongly Agree – 20%

**Bulgaria:**

Strongly Disagree – 4 %

Disagree – 4 %

Somewhat Disagree – 11 %

Somewhat Agree – 41 %

Agree – 26 %



Strongly Agree – 14 %

**UK:**

Strongly Disagree – 0 %

Disagree – 7 %

Somewhat Disagree – 4 %

Somewhat Agree – 33 %

Agree – 30 %

Strongly Agree – 26 %

**Slovakia:**

Strongly Disagree – 0 %

Disagree – 4 %

Somewhat Disagree – 0 %

Somewhat Agree – 38 %

Agree – 29 %

Strongly Agree – 29 %

**Ireland:**

Strongly Disagree – 0%

Disagree – 12%

Somewhat Disagree – 9%

Somewhat Agree – 27%

Agree – 27%

Strongly Agree – 27%

**Global Analysis:** Most of the surveyed SME managers feel that robotization and AI will affect their business in the next 5 years. The most voted answer in the 5 countries was **Somewhat Agree**, which however reckons some doubts in this regard.

**14. Robotization and AI are a future threat for your business.**

**Portugal:**

Strongly Disagree – 32%



Disagree – 20%  
Somewhat Disagree – 16%  
Somewhat Agree – 16%  
Agree – 8%  
Strongly Agree – 8%

**Bulgaria:**

Strongly Disagree – 7 %  
Disagree – 52 %  
Somewhat Disagree – 26 %  
Somewhat Agree – 11 %  
Agree – 4 %  
Strongly Agree – 0 %

**UK:**

Strongly Disagree – 19 %  
Disagree – 37 %  
Somewhat Disagree – 19 %  
Somewhat Agree – 15 %  
Agree – 7 %  
Strongly Agree – 4 %

**Slovakia:**

Strongly Disagree – 17 %  
Disagree – 58 %  
Somewhat Disagree – 13 %  
Somewhat Agree – 4 %  
Agree – 0 %  
Strongly Agree – 8 %

**Ireland:**

Strongly Disagree – 18%



Disagree – 29%  
Somewhat Disagree – 32%  
Somewhat Agree – 9%  
Agree – 9%  
Strongly Agree – 3%

**Global Analysis:** In all countries, there is a predominance of negative responses (68% in Portugal, 85% in Bulgaria, 73% in the UK, 88% in Slovakia and 79% in Ireland), which means that the majority of SME managers surveyed do not consider that Robotization and AI are a future threat for their business.

### 15. Your business is suitable for introducing robots/AI to replace humans in certain processes.

#### Portugal:

Strongly Disagree – 32%  
Disagree – 20%  
Somewhat Disagree – 16%  
Somewhat Agree – 16%  
Agree – 8%  
Strongly Agree – 8%

#### Bulgaria:

Strongly Disagree – 4 %  
Disagree – 15 %  
Somewhat Disagree – 26 %  
Somewhat Agree – 33 %  
Agree – 22 %  
Strongly Agree – 0 %

#### UK:

Strongly Disagree – 7 %  
Disagree – 15 %  
Somewhat Disagree – 15 %  
Somewhat Agree – 37 %



Agree – 15 %

Strongly Agree – 11 %

**Slovakia:**

Strongly Disagree – 4 %

Disagree – 17 %

Somewhat Disagree – 12 %

Somewhat Agree – 33 %

Agree – 17 %

Strongly Agree – 17 %

**Ireland:**

Strongly Disagree – 12%

Disagree – 9%

Somewhat Disagree – 6%

Somewhat Agree – 18%

Agree – 44%

Strongly Agree – 12%

**Global Analysis:** Although there is a balance between negative and positive responses in most of the countries surveyed, in Bulgaria, UK, Slovakia and Ireland the percentages of positive responses ended up exceeding (respectively 55%, 53%, 67% and 74%), although the most voted answer was **Somewhat Agree** in all countries but Ireland (in which **Agree** got the highest percentage).

**16. The introduction of robots/AI could give your company a competitive advantage over other companies in its sector.**

**Portugal:**

Strongly Disagree – 32%

Disagree – 20%

Somewhat Disagree – 16%

Somewhat Agree – 16%

Agree – 8%

Strongly Agree – 8%



**Bulgaria:**

Strongly Disagree – 0 %  
Disagree – 11 %  
Somewhat Disagree – 11 %  
Somewhat Agree – 40 %  
Agree – 34 %  
Strongly Agree – 4 %

**UK:**

Strongly Disagree – 0 %  
Disagree – 7 %  
Somewhat Disagree – 4 %  
Somewhat Agree – 30 %  
Agree – 33 %  
Strongly Agree – 26 %

**Slovakia:**

Strongly Disagree – 4 %  
Disagree – 8 %  
Somewhat Disagree – 17 %  
Somewhat Agree – 21 %  
Agree – 33 %  
Strongly Agree – 17 %

**Ireland:**

Strongly Disagree – 9%  
Disagree – 9%  
Somewhat Disagree – 12%  
Somewhat Agree – 27%  
Agree – 24%  
Strongly Agree – 21%



**Global Analysis:** Apart from Portugal, all the inquired countries' respondents believe that the introduction of robots/AI could give their company a competitive advantage over other companies in its sector (**Agree** was the most chosen answer in Bulgaria, UK and Slovakia).

### 17. The associated consequences to the labour forces make the introduction of robots/AI troubling.

#### Portugal:

Strongly Disagree – 4%

Disagree – 36%

Somewhat Disagree – 24%

Somewhat Agree – 36%

Agree – 0%

Strongly Agree – 0%

#### Bulgaria:

Strongly Disagree – 0 %

Disagree – 11 %

Somewhat Disagree – 19 %

Somewhat Agree – 40 %

Agree – 30 %

Strongly Agree – 0 %

#### UK:

Strongly Disagree – 11 %

Disagree – 11 %

Somewhat Disagree – 22 %

Somewhat Agree – 33 %

Agree – 19 %

Strongly Agree – 4 %

#### Slovakia:

Strongly Disagree – 0 %



Disagree – 12 %  
Somewhat Disagree – 17 %  
Somewhat Agree – 33 %  
Agree – 38 %  
Strongly Agree – 0 %

**Ireland:**

Strongly Disagree – 0%  
Disagree – 9%  
Somewhat Disagree – 18%  
Somewhat Agree – 32%  
Agree – 24%  
Strongly Agree – 18%

**Global Analysis:** Unlike Portugal, where 64% of respondents disagree that the associated consequences to the labour forces makes the introduction of robots / AI troubling, respondents from the other four countries agree that there are other factors that could compromise the arrival of technologies. However, only seven **Strongly Agree** response was recorded, therefore there is no total consensus upon this subject.

**18. This survey was worth your time and attention.**

**Portugal:**

Strongly Disagree – 0%  
Disagree – 4%  
Somewhat Disagree – 4%  
Somewhat Agree – 24%  
Agree – 44%  
Strongly Agree – 24%

**Bulgaria:**

Strongly Disagree – 0 %  
Disagree – 0 %  
Somewhat Disagree – 4 %  
Somewhat Agree – 22 %  
Agree – 52 %



Strongly Agree – 22 %

**UK:**

Strongly Disagree – 0 %

Disagree – 7 %

Somewhat Disagree – 7 %

Somewhat Agree – 22 %

Agree – 48 %

Strongly Agree – 15 %

**Slovakia:**

Strongly Disagree – 0 %

Disagree – 4 %

Somewhat Disagree – 4 %

Somewhat Agree – 38 %

Agree – 46 %

Strongly Agree – 8 %

**Ireland:**

Strongly Disagree – 0%

Disagree – 3%

Somewhat Disagree – 9%

Somewhat Agree – 29%

Agree – 41%

Strongly Agree – 18%

**Global Analysis:** Overall, respondents agreed that their time and attention was well invested in answering this questionnaire. **Agree** responses registered values in the range of 50% in all countries. The percentages of negative responses were low in the five countries (the average was 8%).



### Section III – Open-ended questions

19. Are there opportunities offered by emerging technologies to both evolve your business model and to improve the relationship with your employees? If yes, please tell us which.

#### Portugal:

Yes – 14 answers (56%)

No – 8 answers (32%)

Don't Know / No opinion – 3 answers (12%)

*Computerized machinery; The technologies that we identified as potential promoters of our company, would be with the increasing increase in the value of labour, the penetration of automation/robotization of production processes and in parallel implementation of the industry 4.0 methodology; Co-robots; Robotics; Production automation; Digitalization of processes; Production automation; Better planning through IA; Medical robotics and telemedicine; Assist in treatments; Electric vehicles assembly;*

#### Bulgaria:

Yes – 10 answers (37%)

No – 3 answers (11%)

Don't Know / No opinion – 14 answers (52%)

*Analysis of business turnover AI technologies, logistics of production materials, applying statistical methods using artificial intelligence; Technologies in the field of data processing, medical operations, agriculture; Customer service automation and programmatic advertising; Improvement communication technology; New technologies in the field of communications; Analyzing data from different sources; Reception robot, cleaning robot; communication technologies.*

#### United Kingdom:

Yes – 10 answers (37%)

No – 5 answers (19 %)

Don't Know / No opinion – 12 answers (44%)

*The emerging technologies will be readily used by younger employees who will see the need to embrace them. I think the experienced employees will be more fearful that the technology will either replace them or that it will be too difficult for them to learn; More related to the products lines we promote to the Powertrain Industry rather than the actual business; Expert Tooling & Automation; Citizenship with full rights to AI; 3D printing of large tools; Automated robotic testing; Chat boots.*

#### Slovakia:

Yes – 12 answers (50%)

No – 7 answers (29%)

Don't Know / No opinion – 5 answers (21%)



*In AI, the situation is very similar to when Microsoft separated SW from HW. Nowadays, a huge group of SW (IT) activities is being formed and it is a huge assumption that a completely new market will emerge; they are certainly able to simplify and speed up the work of employees in many ways and to facilitate their work in some constantly repeating activities; reducing the amount of monotonous work in favour of creative activity; Improved communication between human and robot, increased intelligence of the robot; Yes there are, increasing the comprehensive overview of low-trained staff; blockchain, virtual reality, chatbot, quantum computing; Robots boosting human performance in monotonous work; the use of AI in decision-making models; Neural networks;*

**Ireland:**

Yes – 18 answers (53%)

No – 4 answers (12%)

Don't Know / No opinion – 12 answers (35%)

*We strive to reduce the strain on our employees, through the introduction of new computer systems etc. And considering we are involved in the Nursing home sector and have looked at some of the Robots being used by the elderly in Japan to hold the elderly with their general day to day living, including providing companionship; Remote monitoring, self-field analysis/sampling/results, self-calibration, greater field measurement accuracy compared to lab analysis, shorter sampling times in labs and in the field, remote access analysis, self-calibration of field technology; To improve efficiency and replace routine tasks that require a low level of employee engagement and involvement such as invoice and compliance form processing. Warehousing tasks such as product picking and packing will be greatly enhanced.; Yes, it could help us to use staff at a higher level of thinking. AI should be more aligned to AI assistance to work as a human has to responsible for the impact AI has on the services being delivered; Emerging technologies can help evolve our business model, but i do not see it improving our relationships with our employees - quite the opposite in fact.; Yes it will remove some of the time consuming but necessary work employees do and allow them to branch into other more interesting and satisfying work; Gathering and analysis of metadata to provide suitable and easy of use AI to assist in the delivery of public services; There is a need to address the fear of AI and promote the benefits to be gained by deploying this technology; Reduction in base/ship security personnel. Logistics - reduction in-store men (stock checks etc.); seeing more opportunities in the last few years but still behind the curve; Yes, use robotics to remove boring paper-based processes; Replace humans/staff for health and safety reasons/risk; Healthcare Technology, Pandemic Management; Automated advances in Website Design; Promoting the learning organization; Improve my business model; Yes- trade shows; Maybe so.*

**Global Analysis:** Most of the respondents think that there are opportunities offered by emerging technologies to both evolve their business model and to improve the relationship with their employees., Even though it must be stated that **Don't Know / No opinion** answers' percentage has been quite meaningful (from 12% to 52%). Among the examples given, computerized machinery, robotization of production processes, medical robots, co-bots, chatbots and AI in decision-making processes were the most referred examples of opportunities offered by this newly arrived emerging technologies.

**20. Has your company already started implementing steps towards digitalization, robotization and/or AI? If yes, can you briefly describe them?**



### Portugal:

Yes – 9 answers (36%)

No – 14 answers (56%)

Don't Know / No opinion – 2 answers (8%)

*We have already started the implantation of the robotic process and the implantation in some parts of the process of Industry 4.0 methodologies; Scanning using programs that make the ordering process faster and more efficient; Acquisition of productive cells (cabinet + robot + milling machines); Digitalization of documentation and adoption of IT solutions to manage the workflow; Digitization in logistics and commercial aspects; Computerization of production control; ROSE Project: <https://youtu.be/b-PXUVQqjZY>; Machines that promote human well-being, through tasks that cannot be performed by humans.*

### Bulgaria:

Yes – 4 answers (15%)

No – 23 answers (85%)

Don't Know / No opinion – Zero answers (0%)

*Software program and report on the Internet; Data processing with software, cloud technologies for data sharing and more; Entering some of the client information automatically; Analyzing and calculating; Informing customers through an automated system, and more; digitalization of business by introducing new digital platforms that optimize the workflow.*

### United Kingdom:

Yes – 12 answers (44%)

No – 15 answers (56%)

Don't Know / No opinion – Zero answers (0%)

*Yes, the business is making steps towards Industry 4.0 and efforts to better understand introduction at the earliest stages: digitalization - yes - ROB/AI not yet; All products are digital now... All communication (almost) is online/video etc.; Expert are amongst the world leaders in tooling and automation integrated solutions; Yes, already introducing and supplying collaborative robots to our customers; AI for network analysis and intervention; Yes - new robot installed in January; yes, installation on customer sites; Yes, business intelligence models.*

### Slovakia:

Yes – 13 answers (54%)

No – 11 answers (46%)



Don't Know / No opinion – Zero answers (0%)

*As an IT company automates processes (DevOps), we teach RPA and try to transform from SW house to AI house of the future by successive steps (including culture and business model); We try to eliminate human error and all processes are digitized and automated; YES, besides the implementation we are also developing ... We teach and guide the robot to self-maintenance; Partially yes, by buying and using automatic CNC machines and so on; Introduction of a new semi-automatic toilet paper production line; in manufacturing, logistics and prototype testing; we are developing neural networks to facilitate the work of doctors; we will be introducing AI within our customer product; we bought a line to wash and decompose templates; we digitize all documents in the company; digitization yes robotization no and AI is not solved; Implementing AI in our products; AI pilot projects, drones.*

#### Ireland:

Yes – 15 answers (44%)

No – 18 answers (53%)

Don't Know / No opinion – 1 answer (3%)

*Yes, we computerised everything we possibly can to make life easier on our staff and in doing so we created greater accountability through better record-keeping with the added benefit of hugely reduced storage of hard file paper records. There are areas were currently exploring, where Robotic devices are currently available, such as for floor cleaning, sanitisation and gardening; Baby steps, Planning our Strategic Statement for 2021, and are exploring the possibilities with digitalization /AI on our work and to plan to gain effectiveness and efficiency; Use of drones is a work in progress, however, no discussions re AI and its impact on how employees can work with it have not been discussed.; Yes, Dalata Online learning platform for employees has reduced face to face training, ALKIMII app is a team and HR Communications app.; scanning in post is done automatically with barcodes so the post goes to the correct department.; From a corporate perspective - yes. Locally we have examined RPA applications in light of Brexit; Yes. Bots are used to communicate with customers and offer technical support; Yes- automation of accounting/invoicing; robotics for cleaning (irobot); a number of digitization projects underway no robotics AI ones yet; I have automated the data processing of my online technology; AI is a key part of every product line; Yes - bespoke T&A system; Yes in admin section; Yes - data recording; Yes.*

**Global analysis:** Only Slovakia had more positive responses than negative, yet they are sparse (54%). In the remaining countries, it can be observed that most of their SME managers have not yet started implementing steps towards digitalization, robotization and / or AI. Of the cases where this process has already started, the examples given went through buying and using automatic CNC machines, AI to fine-tune customer preferences, internet-based products, data processing, Computerization of production control, robotized production systems, etc.

**21. What are the three biggest barriers the implementation of robots and AI in your business might struggle with (e.g. lack of awareness of opportunities, lack of finances for such implementation, lack of qualified workforce, etc.)?**

#### Portugal:



Don't Know / No opinion – 5 answers (20%)

*Lack of awareness of opportunities, lack of finances for such implementation, lack of qualified workforce, etc.; growing blurring of the economy; resistance to change by the team that collaborates daily in the production; lack of business suitability, absence of human value in the robot;*

**Bulgaria:**

Don't Know / No opinion – 7 answers (26%)

*Lack of information on the possibilities of introducing artificial intelligence in the service sector, lack of knowledge and skills to implement it, lack of adequate incentives, given the high value of the investment for implementation against the low level of remuneration; lack of regulatory framework, lack of qualified personnel, the willingness of customers to operate with automated solutions;*

**United Kingdom:**

Don't Know / No opinion – 7 answers (30%)

*lack of finances for such implementation; expert's workforce are fully aware of the advantages, however, we see many companies that have not communicated properly the improvements and benefits, indeed that there will be huge productivity improvements that will necessitate re-distribution of the workforce to areas such as despatch, thus guaranteeing future employment; lack of knowledge and enough information, lack of opportunities and lack of adequate financing for the acquisition and implementation and we need a very well trained labour force; Lack of awareness of opportunities certainly. Also ensuring efficient implementation, and inability to do an accurate risk analysis; lack of awareness of opportunities, lack of finances for such implementation, lack of qualified workforce; Finances - to buy equipment/software - and as we lack competence also to buy knowledge service; lack of awareness of opportunities, lack of finances for such implementation; lack of awareness of opportunities and covered all the implementation; lack of qualified workforce, not useful, lack of finance; the biggest barrier is the lack of qualified workforce; Robot programming and robotic workstation planning; convincing our customers of the safety factors; lack of qualified workforce; type of work; Lack of qualified workers.*

**Slovakia:**

Don't know / No opinion – 1 answer (4%)

*Usually, custom production assumes a significant proportion of creative human work according to the client's requirements. Only a few activities can be replaced by robots, eventually. AI, respectively. this will be possible after starting up for mass production. Finance = time, low prices on SVK cause pressure to effectively integrate people and this usually happens when they do billing hours (and not optimization). Insufficient perception of the possible added value of AI, lack of qualified experts in this field, legal, social, ethical risks. Insufficient information and confidence in technology, the measurement accuracy of implemented sensors, insufficient dataset size. Creativity design solutions man vs. man AI; be able to ask AI the right questions/questions; check and accept AI results. Unclear rules, lack of skilled labour, lack of resources for research and development in this area. Lack of funding, lack of data to implement A.I., credibility A.I. in the eyes of users. Lack of information on implementation, lack of people able to implement robots / AI. Return on investment - it is necessary to consider how fast and generally returns the investment. Price of robots, lack of information, lack of qualified experts; lack of financial resources, insufficient repeatability of production; lack of funding for such implementation; market crisis, lack of skills. prac. Power; lack of understanding of the use of AI management by the company; your business is not quite suitable for robotics; In particular, a lack of skilled labour.*



## Ireland:

Don't know / No opinion – 4 answers (12%)

*Staff resistance; Considering the constantly reducing workforce in our sector, we feel that we may have to gravitate towards Japanese caring Robots in the next 5 years. Although we do see greater short-term barriers in the implementation of same in Ireland due to a general unwillingness of the elderly to embrace technology.;*  
*1. No management or leadership on what the implications of AI are 2. Lack of discussion within the civil and public services on pros, cons and implications of introduction. 3. Lack of engagement with Unions to prepare any groundwork that is required.;*  
*Lack of qualified workforce, who are in short supply, - will have to buy in services, Need to look at doing a gap analysis to assess what will and will not suit our work Will need to understand the financial implications and to consider how to fund; Industrial relations with employees, lack of buy-in from senior management who might not understand the benefits of such investment, resistance to change from employees; Lack of qualified workforce, resistance from the union, a requirement for human interaction in hospitality (although not required in all areas); Some members of staff are change averse and innovation and they will resist the introduction of such implementation.;*  
*Finance, Existing ICT infrastructure, ICT workforce needs to be expanded in terms of capability and capacity; Lack of qualified workforce. Some levels of feasibility funding would be very useful; Lack of finances. Also time in learning new process may slow down processes.;*  
*technology to develop and implement / awareness and resources to develop; Lack of awareness of use, lack of in house design, lack of understanding.;*  
*Finance, Trust in AI (backup), Loss of skills in event of system failure; Lack of expertise inside and outside the business. Resistance to change; lack of awareness, lack of confidence and financial constraints; Lack of awareness, much of our work is manual in nature; lack of suitability at present to the workplace.;*  
*Lack of knowledge, cost, client reaction; Language, finance and change management; lack of awareness & qualified workforce; Finances and qualified workforce; One to one with another Human; Lack of qualified workforce; Application and training; GDPR and Regulation; Lack of awareness.;*  
*Lack of workforce.*

**Global Analysis:** The biggest barriers to the implementation of robots and AI in SME managers' businesses might struggle with as stated by them in the four countries are mainly linked to lack of information regarding funding and legislation, lack of qualified workforce, lack of suitability of the business and lack of awareness of opportunities.;

**22. What are your thoughts in regard of training/mentoring on robotization/AI in your company? Will it be beneficial to your company's future business development? Is the lack of robotization/AI implementation due to gaps in the training of students/workers in these areas?**

## Portugal:

Don't know / No opinion – 4 answers (16%)

*In my opinion, it is an asset, there are very complicated / dangerous jobs that increasingly have fewer followers. It is essential that companies find tools to improve them and I believe that robotics associated with AI is a solution; We are a small company that grows according to needs, today robotization is not a priority; But we are aware of some robots that could be beneficial to the company; Yes, we consider both issues important in the company's strategic vision. Robotics in particular will form an important pillar in the future; The lack of training in these areas can compromise the adoption of instruments of this nature; The implementation for how much can only be done by using software; Above all, there is a lack of financial resources and public support; We already know these topics, not missing a training; I think it will be beneficial, with moderation and awareness; Yes, we consider digitization beneficial; It is beneficial. It is not due to gaps; In our business it is not advantageous; It will not add benefits.*

## Bulgaria:



Don't Know / No opinion: 8 answers (30%)

*It will be useful; Automation of some processes would increase efficiency in our industry. There are STEM schools where, from an early age, children can learn the basics of robotics and computer science; Yes It will be useful Due to gaps in education and due to too much material online (internet and television); Yes, it will be polished, there is a need for training, as there are major gaps in the knowledge and training of the staff; Lack of human resources is currently the most significant problem for such an initiative. Yes, it will be useful. Yes, due to gaps in education and training; Yes training would be helpful; I think it will be useful !!*

*Training would be useful; Yes, it will be useful; Yes, it will be useful; Yes, it will be usefull; Yes, it will be useful; It would be helpful it's not appropriate; There is none; Good idea.*

#### **United Kingdom:**

Don't Know / No opinion: 8 answers (31%)

*We are concerned with the Rise of Christian fundamentalism, which will set a stop to innovation work. Därför There may not be available competences for the necessary training; We need to get the competence somehow.... The problem for new employees is the understanding of the connection between existing business and new technology....; We are great supporters of mentorship in principle across a range of opportunities for staff development, and this area seems to be particularly appropriate.; Should be implemented in close time horizon.; I don't think it's a big need in our organisation. Maybe for other sectors will be more interesting to implementing.; There are significant gaps in the learning and preparedness of students in regard to training in AI and Automation; training is very important and should be available for all, training providers do to keep up with our demands; Training on latest technology and products available will always be an advantage; Our company are already training staff in the implementation requirements; Beneficial in the future but people wary. No training in this whatsoever; No, it will not; No, it is not due to gaps in the training; For the moment, we don't such a big change in robotics; Yes, there are an important lack of training to gaps in the training of students/workers; None; yes; No; I think it could be beneficial by automation the processes which do not require creativity.*

#### **Ireland:**

Don't Know / No opinion: 10 answers (29%)

*We feel that it's essential to move with the times to benefit the company & our workforce, and believe through training, the progressive introduction of technology our workforce will learn to embrace all that is new.; The lack of implementation is due to the lack of technology in this area. When more readily available, training and mentoring would be hugely necessary in order to successfully plan an implementation strategy.; It would be paramount to have training and on-going mentoring. I would imagine there currently are gaps due to lack of awareness of the benefits and a resistance to change and the additional expenditure; Once we know how we are planning to move forward, we will need to use a consultant to devise a plan, but keeping an eye on what is happening with our international regulators; It would be beneficial for management and employees to undergo workshops and discussion forums re the implications of AI and Robotics; Strongly agree. Training and mentoring would be very beneficial and greatly welcomed. We would happily engage in such a process.; Training/mentoring would be of assistance. Benefit greater awareness, lack of AI due to poor training/awareness; Training and consultation are required prior to any introduction of robotics or AI.; Both technical, individual and cultural barriers to implementation; New training systems critical to acceptance and potential trials.; training and mentoring will be useful and relevant going forward; Robotics training should be part of Third Level Education. Possibly and knowledge of systems and applications; All engineers required to do ML training; Staff resistance/ highly unionised; it needs to be managed carefully; Extremely beneficial.*



**Global Analysis:** In regard of training/mentoring on robotization/AI in the inquired companies, most of the SME managers stated that training would be really important in order to form current and future employees, as they would become more aware and skillful regarding new technologies to keep up with markets' constant demands.

**23. Are the existing policies and available government support towards SME's robotization enough? Are the policy makers in your country striving to stimulate its implementation in SMEs?**

**Portugal:**

Don't Know / No opinion: 6 answers (24%)

*No; do not know; I am not aware of the EU policy regarding the implementation of robots / Artificial Intelligence in SMEs, perhaps they should organize more information events in partnership with business associations; The process of granting support must be faster, if the company does not have financial stability, it can simply "choke" with a higher investment project; Do not know. But there are always opportunities for improvement; I don't know the policy in that area; I have no knowledge in this area; Without knowledge. We don't know; Do not know; Vaguely; No; No; Do not.*

**Bulgaria:**

Don't Know / No opinion: 8 answers (30%)

*No; no; I am not familiar with the policies available in detail, but given the low level of business digitalization, they may not be sufficient. Currently, there is only one measure available to support business digitalization - the OPIC voucher, but it has not yet launched into business and the result is unclear; I do not think this is a priority for politicians; There is no political support, there are private initiatives supporting robotics; Politicians are clearly not seeking to stimulate the digitalisation of SMEs; Are not sufficient. At this stage, they rather do not aspire; Not enough. I don't think there is any real aspiration; Policies in this area are not sufficient; No, they are not enough; No, it's not enough; Not at this stage; They are not sufficient; I am not familiar; No I do not think so; Not particularly.*

**United Kingdom:**

Don't Know / No opinion: 8 answers (31%)

*Yes; Yes; No; No; No, nothing; Not really; No exist; Not enough; The government only make policy for SMEs a serious priority when there is a firm stance taken by more than one of the SME representative associations; Not really.... The focus is more on manufacturing and financial/insurance services, customer support etc. ... in larger organizations; Yes, but threatened by the already outlined policies of racism movements, totalitarian parties and Christian fundamentalism; No, not enough awareness at this stage on what is available to support SME's; no central government support for robots, some local council support; The UK is well behind the curve in moving towards; I think it can be much better; No more support is required. I'm not informed about the policies in my country.*

**Slovakia:**

Don't Know / No opinion: 10 answers (42%)

*I do not have detailed information yet as this topic was not crucial for the current state of our project and we did not focus on it as a priority; There is a country policy and available government support for SME robotization, but there is not enough effort to implement them within SMEs; No - usually when trying to support something, the end just the opposite ... no offence; Yes, but absolutely inadequate or unavailable, or I don't know about them ...; NO, there is a discrimination against start-ups; I'm trying to make sure it's not enough; I*



*don't know, maybe for some industry, yes; In general, yes.; I haven't met this in person yet; Yes, support exists and is effective; Very weak; No.*

#### **Ireland:**

Don't Know / No opinion: 10 answers (29%)

*No; I don't think so; We would be of the view that our policy makers haven't the foresight or possibly they don't understand that we as a country have to embrace all technologies, including robotics to keep a lead position in this ever-changing world and understand their fears of further unemployment. But since the pandoras box has been opened and there's no going back, and I have a saying, if you stay in the middle of the road, you'll get run over. So, we've no choice but to move with the times and equally try to find ways to avoid the civil unrest the further will bring; Policies are not evolved and Government agencies are simply at the stage of raising awareness. Individual SMEs particularly in the medical tech field are forging ahead alone; Do not know have enough information to answer this question but I would think not think that there are enough supports given the level of discussion that I am exposed to; No - not at the moment, there needs to be a greater level of awareness and greater government support.; to a degree - have had some presentations and comms but not clear on the full suite of policies; Some government backed schemes; unaware of leading activities of policy makers in this area; I'm not in possession of enough direct knowledge to respond; Government does not understand how quickly this will happen; Yes; No.*

**Global Analysis:** In this section, the high number of **Don't know / No opinion** responses should be highlighted, which can easily be dissolved into negative responses by SME managers when asked if they are aware of existing policies and available government support towards SME's robotization or if the policy makers in their countries are striving to stimulate its implementation in SMEs.

**24. Are you aware of the EU policy concerning robots/AI implementation in SMEs? Do you think the policies could be improved and more completely articulated to SMEs? Please describe measures you feel should be taken.**

#### **Portugal:**

Don't Know / No opinion: 8 answers (32%)

*No; do not know; I am not aware of the EU policy regarding the implementation of robots / Artificial Intelligence in SMEs, perhaps they should organize more information events in partnership with business associations; The process of granting support must be faster, if the company does not have financial stability, it can simply "choke" with a higher investment project; Do not know. But there are always opportunities for improvement; I don't know the policy in that area; I have no knowledge in this area; Without knowledge. We don't know; Do not know; Vaguely; No; No; Do not.*

#### **Bulgaria:**

Don't Know / No opinion: 15 answers (56%)

*Given that the EU will approve a whole program for financing digitalisation of business for the new programming period, in parallel with the traditional schemes in Horizon Europe, I believe that this should be one of the main priorities in BG. First, emphasis should be placed on enhancing the knowledge and capacity of both potential users of artificial intelligence and those who would deploy it. The next stage is implementation, for which there should be adequate support; I am not aware, there is not much talk on the subject unless the manager himself is not interested in reading; we are not familiar with EU policy on the implementation of robots / AI in SMEs; I'm not aware. Such information is not disseminated; EU-no .... in Germany-yes. It's a long*



*time ....; yes, in the automotive field; I am not aware of EU policies; I have no information about these policies; I don't have enough; information; Rather not; No.*

#### **United Kingdom:**

Don't Know / No opinion: 14 answers (50%)

*Yes, I am aware of the policy and believe that much more could be done in many areas of engagement to improve the current situation. Training at the grass roots with secondary schools, colleges and universities should be the start point for changing the whole culture. Training is the key to embracing the integration of automation into the businesses that would benefit from the next generation of automation & AI; A Good policy could be to make a business discount for SME which use robots or something similar to improve their business; A good policy concerning robots it could be beneficial for SME in order to implementing with effectively; I would certainly value directions to where such information is stored and available; Yes, brief explanation on what is available and why would be beneficial; I think the policies could be improved; It should be improved, surely; More funding is necessary.*

#### **Slovakia:**

Don't Know / No opinion: 8 answers (33%)

*Not; I do not know; Not; Vouchers for companies implementing AI solutions (PoC coverage), most businesses that decide to go to PoC after the benefit, but the bulk of the majority will not go to PoC, because even a lack of understanding of AI and hard to explain from the table - financial support research, while the R&D write-off is great, but the AI investing company has been generating a loss for the first years and so let it go); Maybe Germany. Measures could be adopted especially in the cyber area and its protection, protection of information systems, etc; Some exist. We participated in the creation of the Trustworthy AI Assessment List prepared by the AI4EU Group; Structural Funds with simple and meaningful administration, non-refundable funding; We are kept informed about EU policy and consider it sufficient; Improve companies' awareness of EU support opportunities; I am not familiar with this policy in detail; No, I don't know. I am not orientated in this topic; Facilitating the absorption of EU projects; education and mentoring; I know grant schemes; do not list them in detail; I don't know about it; I do not know; I do not know.*

#### **Ireland:**

Don't Know / No opinion: 7 answers (21%)

*No; Not aware; Yes, and certainly the EU policies concerning robots/AI implementation in SMEs could be greatly improved. But we should also understand their fear of the unemployment the further will bring and would feel the EU would rather slow the progression of Robotics down in this socialist world to find alternative ways of making money to support our ever reducing workforce; Aware of research by Juha Heikkilä, PhD, Head of UnitnRobotics & Artificial Intelligence- feel that there will be significant impact in the areas of health, ageing population, environment, security- whilst Digitalisation Hubs have been of benefit significant lack of Government investment in broadband infrastructure is hampering development; I am not aware of EU policy concerning robots/AI implementation in SMEs and i do believe these could be better articulated to SME's. On line blogs/web sites and white papers. Awareness campaigns through social media...; No. Outlining what defines bot/AI. Having clear policy on how it can be used to supplement/replace a workforce.; No; yes; Please get the EU Policy out to all SME's and Statutory Bodies and Agencies; Too focused on regulation and not enough on development and leadership; No - would not have enough information to answer this question; I'm not in possession of enough direct knowledge to respond; I am not familiar with the EU policy - will check it out; Very briefly aware and it's an emerging area for SMEs; No. Policies and supports could be improved; No. This needs to be promoted more; Not aware of such policies.*



**Global Analysis:** As with the answers to the previous question, it is clear that most respondents are unaware of the EU policy concerning robots / AI implementation in SMEs. Regarding measures they feel should be taken in this matter, they state that EU should include more robots / AI development funding programs, more investment in training programs, tax benefits for companies using new technologies, more informing events and workshops in companies, among others.

## 25. Do you wish to be kept up to date with the project developments?

### Portugal:

Yes: 6 answers (24%)

No: 19 answers (76%)

### Bulgaria:

Yes: 22 answers (81%)

No: 5 answers (19%)

### United Kingdom:

Yes: 19 answers (70%)

No: 8 answers (30%)

### Slovakia:

Yes: 18 answers (75%)

No: 6 answers (25%)

### Ireland:

Yes: 16 answers (47%)

No: 18 answers (53%)

**Global Analysis:** Apart from Portugal and Ireland, the majority of respondents would like to keep up with the project activities.

## 26. If you have answered YES to Q25 please leave your email address.

62% responded positively



--ooOoo--