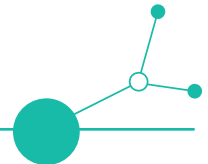


Questionnaire for SMEs

Deliverable D.1.2.1



Final Version

05 2026





A. About INNOSKILLS-CE

[INNOSKILLS-CE](#) aims to strengthen skills for smart specialisation, industrial transition and entrepreneurship in selected Central European regions located outside the main development centres. The project focuses in particular on young people, schools and SMEs in rural, peripheral, post-industrial or structurally challenged areas where access to modern skills, vocational education and labour market opportunities is often more limited.

The project responds to common challenges observed in the three partner regions: Lower Ferrara in Italy, the Wałbrzych area in Poland and Vas County in Hungary. Although these regions have clear economic and industrial potential, they also face barriers related to geographical or functional peripherality, skills shortages, youth migration, early school leaving, unemployment, and difficulties in adapting education and training systems to the needs of a changing economy.

To address these challenges, INNOSKILLS-CE combines cooperation between schools, SMEs, universities, training institutions, public authorities and business support organisations with the development of modern educational tools. The project supports the design of training programmes based on immersive technologies, including augmented and virtual reality, and introduces a shared Learning Management System platform for collecting and exchanging educational resources.

The project is expected to improve the alignment between education and labour market needs, especially in key manufacturing and technology-related sectors such as mechanics, automation and robotics. Its main results include a joint training strategy, a package of innovative training solutions, pilot activities testing immersive training approaches in practice, and a transnational LMS system supporting continuous, hands-on learning.

In this context, SMEs are not only a target group of the project, but also an important source of knowledge. Their involvement is necessary to better understand current and emerging skills needs, identify gaps between education and business practice, and support the development of training solutions that are relevant for students, teachers and regional labour markets.

B. Purpose of the questionnaire

The purpose of this questionnaire for SMEs is to collect structured and comparable information on current and emerging skills needs in key manufacturing and technology-related sectors covered by the INNOSKILLS-CE project, with particular attention to areas such as mechanics, automation, robotics, digitalisation and the use of immersive technologies.

The questionnaire is designed to support INNOSKILLS-CE Activity 1.2 by identifying skills gaps, training needs, expectations towards future employees, and the potential willingness of companies to cooperate with schools, training institutions and project partners. Its results will provide an evidence base for analysing the alignment between business needs and the existing educational offer in the participating regions.

The questionnaire should be completed as a written (transcribed) survey, as it contains open questions for a semi-structured interview. They are included to allow companies to explain their specific needs, experiences and expectations in more detail.



C. The template

0. Company profile

0.1. Company name	
0.2. Country	
0.3. Location of the interviewed site (town/municipality)	
0.4. Date of establishment (company)	
0.5. Date of establishment (interviewed site)	
0.5. Number of employees (company)	
0.6. Number of employees (site)	
0.7. Sector (company, at least 1 NACE code)	
0.8. Sector (site, at least 1 NACE code)	
0.9. Name and position of the interviewee	
0.10. Name and position of the interviewer	

Respondents are asked to **provide further answers with reference to the company site or sites located within the territorial scope of INNOSKILLS-CE activities**, namely the participating regions in Italy, Poland and Hungary.

If the company operates in several locations, answers should relate primarily to the site, branch, production unit or organisational activity that is located in, linked to, or potentially relevant for cooperation with the INNOSKILLS-CE project.

This will help ensure that the collected information is relevant for the analysis of regional skills needs, school-business cooperation and the development of training solutions within the project.



1. Current and future technical skills

1.1. What is the current technical skills profile in your company? Please **describe the main technical skills**, qualifications and areas of expertise that are currently important in your company's everyday operations.

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1.2. Which technical skills listed below are currently available in your company? Please **estimate the share of employees** in your company who have these skills.

Area	<20%	20-50%	50-80%	>80%
Basic digital skills (e.g. office software, ERP basics, digital communication tools)	☐	☐	☐	☐
Advanced digital & Industry 4.0 skills (e.g. AI, data analytics, automation, IoT, digital systems)	☐	☐	☐	☐
Manufacturing technologies (e.g. CNC machines, robotics/cobots, production equipment)	☐	☐	☐	☐
Innovation & development capacity (e.g. product development, CAD/CAM, prototyping, R&D activities)	☐	☐	☐	☐
Workforce & operational skills (e.g. maintenance, troubleshooting, process optimisation, quality management)	☐	☐	☐	☐

1.3. Which technical skills listed below will be the most needed in your company in the next 3-5 years? Please **select the 3 most important areas and rank them**: 1 = highest priority, 2 = medium, 3 = lower priority.

Area	Rank
Basic digital skills (e.g. office software, ERP basics, digital communication tools)	
Advanced digital & Industry 4.0 skills (e.g. AI, data analytics, automation, IoT, digital systems)	
Manufacturing technologies (e.g. CNC machines, robotics/cobots, production equipment)	
Innovation & development capacity (e.g. product development, CAD/CAM, prototyping, R&D activities)	
Workforce & operational skills (e.g. maintenance, troubleshooting, process optimisation, quality management)	
or None of them is a priority for my company	☐

1.4. From the perspective of your company, what technical competence gaps are likely to become most important in the next 3-5 years? Please **describe the gaps** referring to all types of relevant technical competence, including those listed in Q1.3.

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1.5. Which approach to acquiring technical competences is currently predominant in your company?

Please **select the option that best reflects** your current practice.

We usually do not change employment levels significantly and develop competences mainly through internal personnel training when needed.	☐
We mainly acquire qualified or experienced workers from the labour market.	☐
We mainly recruit entry-level workers, mostly graduates of vocational or technical education, and develop/align their competences internally.	☐
We mainly recruit entry-level workers, mostly graduates of engineering, bachelor's or master's programmes, and develop/align their competences internally.	☐
Other, please explain more in Q1.6.	☐

1.6. Please briefly explain your answer in Q1.5., especially if your company combines several of the above approaches or has a different approach.

1.7. What are the main local/regional bottlenecks or barriers that make it difficult for your company to acquire the technical competences it needs? Please **refer, for example, to the availability of qualified workers, the preparedness of graduates, the attractiveness of technical occupations, cooperation with schools, commuting or location-related issues, competition from other employers, or other regional labour market conditions.**

2. Current and future soft skills

2.1. Which soft skills listed below are currently available in your company? Please **estimate the share of employees in your company who have these skills.**

Area	<20%	20-50%	50-80%	>80%
Collaboration skills and work attitudes (e.g. communication, teamwork, reliability, work organisation, attention to detail)	☐	☐	☐	☐
Learning and adaptability skills (e.g. willingness to learn, adaptability to change, digital confidence/mindset, openness to new working methods)	☐	☐	☐	☐
Problem-solving and initiative (e.g. critical thinking, practical problem-solving, initiativeness, independent judgement)	☐	☐	☐	☐
Customer and workplace orientation (e.g. customer orientation, understanding of workplace safety, responsibility in daily work)	☐	☐	☐	☐
Communication in broader contexts (e.g. foreign language skills, intercultural communication, ability to cooperate with external partners or clients)	☐	☐	☐	☐



2.2. Which soft skills listed below will be the most needed in your company in the next 3-5 years? Please select the 3 most important areas and rank them: 1 = highest priority, 2 = medium, 3 = lower priority.

Area	Rank
Collaboration skills and work attitudes (e.g. communication, teamwork, reliability, work organisation, attention to detail)	
Learning and adaptability skills (e.g. willingness to learn, adaptability to change, digital confidence/mindset, openness to new working methods)	
Problem-solving and initiative (e.g. critical thinking, practical problem-solving, initiativeness, independent judgement)	
Customer and workplace orientation (e.g. customer orientation, understanding of workplace safety, responsibility in daily work)	
Communication in broader contexts (e.g. foreign language skills, intercultural communication, ability to cooperate with external partners or clients)	
or None of them is a priority for my company	☐

2.3. From the perspective of your company, what soft skills gaps are likely to become most important in the next 3-5 years? Please describe the gaps referring to all types of soft skills, including those listed in Q2.2.

2.4. Which approach to developing soft skills is closest to your company's current perspective? Please select the option that best reflects your current practice.

We see soft skills as largely individual and personality-related; they are important, but difficult to develop through formal training.	☐
We expect employees to bring the required soft skills mainly from their previous work, education, family background, organisations, volunteering or other life experiences.	☐
We believe that soft skills can be developed, but mainly through practical work experience, team routines, training and everyday cooperation in the company.	☐
Other, please explain more in Q2.5.	☐

2.5. Please briefly explain your answer in Q2.4., especially if your company combines several of the above approaches or has a different approach.



3. Trajectories of change

3.1. Do you expect the competence / skills needed in your company to change significantly in the next 3-5 years? Please select **one option**.

Yes, very significantly	☐
Yes, moderately	☐
Only slightly	☐
No major change expected	☐
Difficult to say	☐

3.2. Which factors are likely to influence future competence / skills needs in your company? Please select **as many options as needed**.

Automation	☐
Robotics	☐
Digitalisation of production	☐
Artificial intelligence / data-based systems	☐
Green transition / environmental standards	☐
Energy efficiency requirements	☐
New materials or technologies	☐
Changes in customer requirements	☐
Changes in supply chains	☐
Labour shortages	☐
Generational change in the workforce	☐
Other:	[please specify]

3.3. Which emerging competence / skills listed below will be the most needed in your company in the next 3-5 years? Please **select the 3 most important competence / skills and rank them**: 1 = highest priority, 2 = medium, 3 = lower priority.

Area	Rank
Using AI tools for production optimisation or decision-making	
Integrating AI solutions into business or manufacturing processes	
Creating and using digital twins for simulation and planning	
Collecting and analysing data from machines (IoT systems)	
Configuring and managing smart sensors and connected devices	
Applying cybersecurity practices in industrial/digital environments	
Using data analytics tools for data-driven decision-making	
Programming or managing human-machine collaboration (cobots)	
Using AR/VR tools for training or operational support	
Working with cloud-based industrial platforms or systems	
or None of them is a priority for my company	☐



3.4. From the perspective of your company, which new or emerging competence / skills should schools and training institutions start developing more strongly in the forthcoming 5 years? Please **describe them** referring to applications in your company / sector.

4. Training patterns

4.1. How would you assess the practical preparation of young workers, students or graduates entering your company? Please select **one option**.

Very good	☐
Rather good	☐
Moderate	☐
Rather poor	☐
Very poor	☐
We have no relevant experience	☐
Difficult to say	☐

4.2. From the perspective of your company, in which areas are young workers, students or graduates usually well prepared? Please **describe the positive aspects**.

4.3. From the perspective of your company, in which areas do young workers, students or graduates usually require additional training? Please **describe the negative aspects**.

4.4. From the perspective of your company, which positions or occupational profiles are currently the most difficult to recruit for? Please **list or describe them**.

4.5. Does your company currently cooperate with schools or training institutions? Please select **one option**.

Yes	☐ (go to Q4.6.A-E)
No	☐ (go to Q4.7.A-D)

4.6.A. Which occupations, profiles or specialisations are included in your current cooperation with schools or training institutions? Please **list or describe them**.

4.6.B. Which other occupations, profiles or specialisations would your company like to include in cooperation with schools or training institutions? Please **list or describe them**.



4.6.C. What forms of cooperation with schools or training institutions are currently used by your company? Please select **as many options as needed**.

Company visits for students	☐
Internships / apprenticeships	☐
Guest lectures by company representatives	☐
Participation in curriculum consultations	☐
Joint development of training materials	☐
Practical tasks or case studies based on company experience	☐
Teacher visits or internships in companies	☐
Participation in local workshops	☐
Testing new educational tools	☐
Cooperation in AR/VR training scenario design	☐
Other:	[please specify]

4.6.D. From the perspective of your company, what works well in this cooperation? Please **describe the positive aspects**.

4.6.E. From the perspective of your company, what are the main difficulties or disappointments related to this cooperation? Please **describe the negative or challenging aspects**.

4.7.A. Why does the company not currently cooperate with schools or training institutions? Please **describe the general reason behind this approach**.

4.7.B. From the perspective of your company, what barriers prevent cooperation with schools or training institutions? Please **describe the negative or challenging aspects**.

4.7.C. What conditions would have to be met for the company to consider cooperation with schools or training institutions in the future? Please **describe the positive triggers**.

4.7.D. Which occupations, profiles or specialisations would be included in your cooperation with schools or training institutions, if such cooperation were to be established? Please **list or describe them**.



4.8. How important are the following elements in preparing young people for work in your company?

Please **choose one answer**: 1 = not important, 5 = very important.

Area	1	2	3	4	5
More practical training	☐	☐	☐	☐	☐
More contact with companies during education	☐	☐	☐	☐	☐
Better technical equipment in schools	☐	☐	☐	☐	☐
More use of AR/VR and immersive training	☐	☐	☐	☐	☐
Updated curricula	☐	☐	☐	☐	☐
More digital and automation-related content	☐	☐	☐	☐	☐
Stronger soft skills development	☐	☐	☐	☐	☐
Better career guidance	☐	☐	☐	☐	☐
Work-based learning / internships	☐	☐	☐	☐	☐
Teacher contact with industry practice	☐	☐	☐	☐	☐

4.9. What forms of cooperation with schools or training institutions would be most useful from your company's perspective? Please select **as many options as needed.**

Company visits for students	☐
Internships / apprenticeships	☐
Guest lectures by company representatives	☐
Participation in curriculum consultations	☐
Joint development of training materials	☐
Practical tasks or case studies based on company experience	☐
Teacher visits or internships in companies	☐
Participation in local workshops	☐
Testing new educational tools	☐
Cooperation in AR/VR training scenario design	☐
Other:	[please specify]

5. Outro

5.1. How interested would your company be in cooperation with schools within the INNOSKILLS-CE project? Please select **one option.**

Very interested	☐
Rather interested	☐
Possibly interested, depending on details	☐
Rather not interested	☐
Not interested	☐
Difficult to say	☐



5.2. In which forms of cooperation with schools would your company be ready to participate in the forthcoming school year? Please select **as many options as needed**.

Company visits for students	☐
Internships / apprenticeships	☐
Guest lectures by company representatives	☐
Participation in curriculum consultations	☐
Joint development of training materials	☐
Practical tasks or case studies based on company experience	☐
Teacher visits or internships in companies	☐
Participation in local workshops	☐
Testing new educational tools	☐
Cooperation in AR/VR training scenario design	☐
Other:	[please specify]

5.3. Who would be the best contact person for further communication?

Name:	
Position:	
E-mail:	
Phone:	

5.1. May the project partners contact your company for follow-up activities related to INNOSKILLS-CE? Please select **one option**.

Yes	☐
No	☐
To be confirmed later	☐



D.NACE codes (for reference)

- 10,1 Processing and preserving of meat and production of meat products
- 10,2 Processing and preserving of fish, crustaceans and molluscs
- 10,3 Processing and preserving of fruit and vegetables
- 10,4 Manufacture of vegetable and animal oils and fats
- 10,5 Manufacture of dairy products
- 10,6 Manufacture of grain mill products, starches and starch products
- 10,7 Manufacture of bakery and farinaceous products
- 10,8 Manufacture of other food products
- 10,9 Manufacture of prepared animal feeds
- 11 Manufacture of beverages
- 12 Manufacture of tobacco products
- 13,1 Preparation and spinning of textile fibres
- 13,2 Weaving of textiles
- 13,3 Finishing of textiles
- 13,9 Manufacture of other textiles
- 14,1 Manufacture of wearing apparel, except fur apparel
- 14,2 Manufacture of articles of fur
- 14,3 Manufacture of knitted and crocheted apparel
- 15,1 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur
- 15,2 Manufacture of footwear
- 16,1 Sawmilling and planing of wood
- 16,2 Manufacture of products of wood, cork, straw and plaiting materials
- 17,1 Manufacture of pulp, paper and paperboard
- 17,2 Manufacture of articles of paper and paperboard
- 18,1 Printing and service activities related to printing
- 18,2 Reproduction of recorded media
- 19,1 Manufacture of coke oven products
- 19,2 Manufacture of refined petroleum products
- 20,1 Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms
- 20,2 Manufacture of pesticides and other agrochemical products
- 20,3 Manufacture of paints, varnishes and similar coatings, printing ink and mastics



- 20,4 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
- 20,5 Manufacture of other chemical products
- 20,6 Manufacture of man-made fibres
- 21,1 Manufacture of basic pharmaceutical products
- 21,2 Manufacture of pharmaceutical preparations
- 22,1 Manufacture of rubber products
- 22,2 Manufacture of plastic products
- 23,1 Manufacture of glass and glass products
- 23,2 Manufacture of refractory products
- 23,3 Manufacture of clay building materials
- 23,4 Manufacture of other porcelain and ceramic products
- 23,5 Manufacture of cement, lime and plaster
- 23,6 Manufacture of articles of concrete, cement and plaster
- 23,7 Cutting, shaping and finishing of stone
- 23,9 Manufacture of abrasive products and non-metallic mineral products n.e.c.
- 24,1 Manufacture of basic iron and steel and of ferro-alloys
- 24,2 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
- 24,3 Manufacture of other products of first processing of steel
- 24,4 Manufacture of basic precious and other non-ferrous metals
- 24,5 Casting of metals
- 25,1 Manufacture of structural metal products
- 25,2 Manufacture of tanks, reservoirs and containers of metal
- 25,3 Manufacture of steam generators, except central heating hot water boilers
- 25,4 Manufacture of weapons and ammunition
- 25,5 Forging, pressing, stamping and roll-forming of metal; powder metallurgy
- 25,6 Treatment and coating of metals; machining
- 25,7 Manufacture of cutlery, tools and general hardware
- 25,9 Manufacture of other fabricated metal products
- 26,1 Manufacture of electronic components and boards
- 26,2 Manufacture of computers and peripheral equipment
- 26,3 Manufacture of communication equipment
- 26,4 Manufacture of consumer electronics
- 26,5 Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks
- 26,6 Manufacture of irradiation, electromedical and electrotherapeutic equipment



- 26,7 Manufacture of optical instruments and photographic equipment
- 26,8 Manufacture of magnetic and optical media
- 27,1 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus
- 27,2 Manufacture of batteries and accumulators
- 27,3 Manufacture of wiring and wiring devices
- 27,4 Manufacture of electric lighting equipment
- 27,5 Manufacture of domestic appliances
- 27,9 Manufacture of other electrical equipment
- 28,1 Manufacture of general-purpose machinery
- 28,2 Manufacture of other general-purpose machinery
- 28,3 Manufacture of agricultural and forestry machinery
- 28,4 Manufacture of metal forming machinery and machine tools
- 28,9 Manufacture of other special-purpose machinery
- 29,1 Manufacture of motor vehicles
- 29,2 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers
- 29,3 Manufacture of parts and accessories for motor vehicles
- 30,1 Building of ships and boats
- 30,2 Manufacture of railway locomotives and rolling stock
- 30,3 Manufacture of air and spacecraft and related machinery
- 30,4 Manufacture of military fighting vehicles
- 30,9 Manufacture of transport equipment n.e.c.
- 31 Manufacture of furniture
- 32,1 Manufacture of jewellery, bijouterie and related articles
- 32,2 Manufacture of musical instruments
- 32,3 Manufacture of sports goods
- 32,4 Manufacture of games and toys
- 32,5 Manufacture of medical and dental instruments and supplies
- 32,9 Manufacturing n.e.c.
- 33,1 Repair of fabricated metal products, machinery and equipment
- 33,2 Installation of industrial machinery and equipment



E. Disclaimer

The questionnaire was developed for project implementation purposes and should be used by all partners to identify the technical and soft skills required in local manufacturing sectors.

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