



**PACT FOR  
SKILLS**

# **BRIDGING PROJECTS AND POLICY: BLUEPRINTS FOR SECTORAL COOPERATION ON SKILLS**

Pact for Skills report | March 2023

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# Abbreviations

## Countries

Acronym	Meaning	Acronym	Meaning
AT	Austria	IT	Italy
BE	Belgium	LT	Lithuania
BG	Bulgaria	LU	Luxembourg
CY	Cyprus	LV	Latvia
CZ	Czechia	MT	Malta
DE	Germany	NL	Netherlands
DK	Denmark	NO	Norway
EE	Estonia	PL	Poland
EU	European Union	PT	Portugal
ES	Spain	RO	Romania
FI	Finland	SE	Sweden
FR	France	SI	Slovenia
EL	Greece	SK	Slovakia
HR	Croatia	SR	Serbia
HU	Hungary	TR	Turkey
IE	Ireland	UK	United Kingdom

## Terminology

Acronym	Meaning
Blueprint	Blueprint Alliances for sectoral cooperation on skills
ECVET	European credit system for vocational education and training
ESCO	European Skills, Competences, Qualifications and Occupations
EQF	European Qualifications Framework
EQAVET	European Quality Assurance in Vocational Education and Training
HE	Higher Education
MOOC	Massive Open Online Course
SME	Small and medium-sized enterprises
TVET	Technical and Vocational Education and Training
VET	Vocational Education and Training
VOOCS	Vocational Open Online Courses
WISEs	Work Integration Social Enterprises

# Introduction

Introduced in 2016 by the Skills Agenda for Europe,<sup>1</sup> the Blueprints for sectoral cooperation on skills<sup>2</sup> represent a flagship EU initiative to support skills development, upskilling and reskilling. Funded through the Erasmus+ programme, the 21 Blueprint Alliances examined in this paper gather businesses, trade unions, research institutions, education and training authorities, and public authorities to develop and implement strategies to address skills gaps in specific sectors/ecosystems. In the current programming period (2021–2027), funding for the Blueprint is being made available through a new Erasmus+ action – ‘Alliances for Innovation – Lot 2: Alliances for sectoral cooperation on skills’,<sup>3</sup> which is specifically dedicated to Blueprint implementation.<sup>4</sup> The report showcases the progress made under 21 Blueprint Alliances that were selected from a total of 28 Blueprints funded since 2017.

The Blueprint summaries included in this paper provide an overview of the main outputs, results and impacts achieved to date, as well as Blueprints’ current efforts to build synergies with the Pact for Skills, and their plans to ensure sustainability over time. Through these summaries, this report aims to promote the Blueprints and their achievements, encourage their upscaling and strengthen the synergies with the large-scale and regional partnerships under the Pact.

For the drafting of this report, the following main research activities were undertaken:

Desk research with a focus on Blueprints websites and other relevant sources;

Two rounds of consultations with Blueprint Coordinators:

- **Round I:** The aim of this round was to further integrate the information gathered through desk research by identifying success factors and challenges, and key deliverables and results;
- **Round II:** The aim of this round was to validate the Blueprint summaries;

Consultation with relevant colleagues from the European Commission and the European Education and Culture Agency (EACEA).

The report was finalised and published in March 2023.

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<sup>1</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0381>

<sup>2</sup> <https://ec.europa.eu/social/main.jsp?catId=1415&langId=en>

<sup>3</sup> <https://erasmus-plus.ec.europa.eu/programme-guide/part-b/key-action-2/alliances-innovation>

<sup>4</sup> <https://ec.europa.eu/social/main.jsp?catId=1415&langId=en>

# Blueprints for sectoral cooperation: main trends

This section provides an overview of key trends across the 21 Blueprints for sectoral cooperation on skills examined in this paper, with regards to their governance structures, main results, as well as approaches to ensuring sustainability of results and establishing strong synergies with the Pact for Skills.

## Partners and governance

Blueprint consortia are characterised by different levels of governance and involve a wide range of partner organisations from both public and private sectors. Partners usually include national, EU-level or international-level industry associations, chambers of commerce, individual companies, trade unions, (technical) universities, research centres and vocational education and training (VET) providers. There are on average 24 partners per Blueprint consortium. The size of Blueprint consortia varies, ranging from a minimum of 14 (NTG) to 31 (STAFFER) partners.

All Blueprints are coordinated by an individual organisation from the consortium, acting as the formal Blueprint Coordinator. However, the Blueprint Coordinator is usually supported by additional governance bodies (e.g. steering committees, steering boards, project boards, etc.) responsible for providing strategic direction and overseeing the project's implementation. In the case of several Blueprints, consortium partners have sought external expertise by selecting external experts to sit in advisory bodies (e.g. National Advisory Groups in the case of the Construction Blueprint, the Advisory Board in SKILLSEA and Thematic Groups in MATES) or regional working groups (e.g. National/Regional Skills Partnerships established under NTG) tasked with monitoring and validating the quality of Blueprint outputs and/or the implementation of Blueprint activities at the regional or local level. In terms of internal work organisation, Blueprint projects tend to be structured around Work Packages or tasks corresponding to the specific goals of the project. When this is the case, task or Work Package leaders are appointed among consortium members. Usually, the first Work Package is dedicated to project management and is led by the main coordinating organisation, while the final Work Package is focused on ensuring the Blueprint's sustainability beyond the project's completion.

## Countries coverage

On average, the Blueprints tend to cover a wide range of countries, both within and outside the EU. The Blueprints with the widest geographic coverage are SKILLSEA and CHARTER, as both feature partners from 16 different countries. The countries most represented across Blueprint consortia are Spain (59 partners out of 500 overall, 12 %) and Italy (57 partners out of 500 overall, 11 %). Similarly, organisations based in Italy and Spain tend to take up the role of Blueprint coordination more often (five organisations in Italy and four organisations in Spain coordinating Blueprints). To date, the UK stood out as the non-EU country hosting the most consortia partners (14 partners out of 21 non-EU partner countries, 67 %). However, this is likely to change in the coming years as the UK is not included in the eligible countries for Erasmus+ funding. The UK is followed by Norway (4 partners out of 21 non-EU

partner countries, 19 %), which remains included in the Erasmus+ programme as a part of the European Economic Area (EEA).

### *Deliverables and results*

Since the onset of the initiative, the Blueprints have produced a great variety of outputs of deliverables, ranging from research on skills intelligence and anticipation, to the identification and/or creation of training courses and curricula, and the organisation of events and dissemination activities. The most common deliverables across Blueprints include the creation of methodological tools, learning platforms, VET programmes, Massive Open Online Courses (MOOCs) as well as reports providing state-of-the-art analyses on skills needs and emerging job roles in a specific sector. Dissemination activities include networking events, conferences and webinars supported by regular newsletters.

Overall, Blueprint deliverables are providing a crucial contribution to policymaking in relation to skills development, upskilling and reskilling in their respective sectors and ecosystems, both at EU and national level. This is due not only to the high quality of the outputs produced, but also to the inherently collaborative nature of the Blueprint initiative, i.e. bringing together committed partners within Blueprint consortia and contributing to establishing broader networks with key actors across stakeholder groups, including national and regional level policymakers. This has resulted in greater opportunities to work on joint solutions to address skills needs and gaps, and promote greater preparedness and adaptability to changes in the labour market.

At the EU level, the Blueprints have followed in the steps of their predecessors – the Sectoral Skills Alliances – by contributing to flagship initiatives. For example, the work of the Blueprints (e.g. DRIVES, EO4GEO) on designing core curricula and training programmes, based on their research on skills intelligence and the needs of their sectors, and leading to qualifications, have greatly contributed to the further development of European Vocational Core Profiles (EVCPs), included as a potential key action to support skills in the 2020 Council Recommendation on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience.<sup>5</sup> Furthermore, several Blueprints (e.g. ASSETS+, CHAISE, MATES, METIS, SAM, SKILLSEA, FIELDS) contributed to the recent update of the European Skills, Competences, and Occupations (ESCO)<sup>6</sup> classification system. This identifies and categorises skills, competences and occupations relevant for the EU labour market and education and training, by proposing new occupational profiles or skills to be added to the system, based on their own research on the needs of their respective sector.

### *Success factors and challenges*

Across Blueprints, the diversity of consortium partners and their motivation to work together has been identified as a key factor for the successful implementation of the project. Several Blueprints also indicated the important role of external experts, including associated and affiliated partners, and the

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<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020H1202%2801%29>

<sup>6</sup> <https://esco.ec.europa.eu/en>

wider network of stakeholders in supporting the project by providing expertise, contributing to testing findings or disseminating deliverables.

Strong cooperation and motivation were also considered as being equally important to overcome challenges. In particular, the COVID-19 pandemic and subsequent lockdown measures, and their impact on the roll out of internal (e.g. coordination meetings) and external (e.g. in-person training and events) activities stand out as some of the main challenges faced by Blueprints. However, consortia partners managed to find joint solutions to continue their close cooperation and revise their approach to planned activities to avoid disrupting the work of the Blueprints.

### *Sustainability of results and synergies with the Pact for Skills*

Ensuring the sustainability of project results is a key priority across Blueprints. A number of avenues are usually pursued to ensure that the work of the Blueprints continues to have an impact beyond the life of the project. For example, Blueprints tend to develop 'sustainability plans' to agree on steps to be taken to ensure financial viability beyond Erasmus+ support, so that outputs can continue to be used and disseminated after the EU grant period.

Pact for Skills represents an essential opportunity for Blueprints to build on their legacy. Most Blueprints Alliances either have built or are in the process of building synergies with the large-scale partnerships set up under the Pact for Skills by ensuring that consortia partners sign the Pact for Skills Charter or by encouraging Blueprint Coordinators to take an active role in the establishment of large-scale partnerships in their sector/ecosystem (e.g. DRIVES, MATES, FIELDS, METIS, among others). Blueprints that target different segments of the same industrial ecosystem have worked together to launch partnerships under the Pact (e.g. ESSA and SPIRE-SAIS, EO4GEO and ASSETS+, DRIVES and ALBATTIS).



## Blueprints for sectoral cooperation on skills: individual summaries

This section includes individual summaries for all the 21 Blueprints. For each individual Blueprint, the respective summary includes details on aims and objectives, and provides information on the internal governance structure, key deliverables and results to date, as well as main challenges and success factors. The individual summaries include a forward-looking section, where potential synergies with the Pact for Skills and sustainability plans are explored. Lastly, contact details of the Blueprint Coordinators are provided to encourage cooperation and outreach.

The individual summaries are as follows:

- Alliance for Batteries Technology, Training and Skills (ALBATTs)
- Alliance for Strategic Skills addressing Emerging Technologies in Defence (ASSETS+)
- Blueprint for Sectoral Cooperation on Skills in Work Integration Social Enterprises (B-WISE)
- Blueprint for Sectoral Cooperation on Blockchain Skill Development (CHAISE)
- Blueprint for Cultural Heritage Actions to Refine Training, Education and Roles (CHARTER)
- Establishing a new Strategy on Construction Skills in Europe – Construction Blueprint
- Development and Research on Innovative Vocational Education Skills (DRIVES)
- Education for Digitalisation of Energy (EDDIE)
- Towards an innovative strategy for skills development and capacity building in the space geo-information sector supporting Copernicus User Uptake (EO4GEO)
- European Steel Skills Agenda and Alliance (ESSA)
- European Software Skills Alliance (ESSA)
- Addressing the current and Future skill needs for sustainability, digitalisation and the bio-Economy in Agriculture: European skills agenda and Strategy (FIELDS)
- Maritime Alliance for fostering the European Blue Economy through a Marine Technology Skilling Strategy (MATES)
- MicroElectronics Training, Industry and Skills (METIS)
- Next Tourism Generation Alliance (NTG)
- Cybersecurity Skills Alliance – A New Vision for Europe (REWIRE)
- Skills for Smart Textile, Clothing, Leather and Footwear Industries 2030 (SKILLS4SMART TCLF 2030)

## SUB-TASK 1.1.2: PROMOTION OF RESULTS OF BLUEPRINTS

- Sector Skills Strategy in Additive Manufacturing (SAM)
- Future-proof skills for the maritime transport sector (SKILLSEA)
- Skills Alliance for Industrial Symbiosis – a Cross-Sectoral Blueprint for a Sustainable Process Industry (SPIRE-SAIS)
- Skill Training Alliance for the Future European Rail System (STAFFER).

# Alliance for Batteries Technology, Training and Skills – ALBATTTS

## 1. Overview of the Blueprint

### Main aims and objectives

The [Alliance for Batteries Technology, Training and Skills – ALBATTTS](#) aims to address the challenges caused by the current push towards electromobility in the battery production sector, which has resulted in new skills needs. To this end, the ALBATTTS Blueprint works to develop a European battery value chain where organisations from the supply and demand sides are brought together to cooperate and contribute to green mobility in Europe, while also dealing with stationary storage demand.

ALBATTTS is supported by an EU grant of EUR 3.98 million. The work of the Blueprint started in 2019 and will continue until 2023.

## 2. Implementing the Blueprint

### Governance structure

The ALBATTTS consortium is composed of 20 partner organisations from 11 countries,<sup>7</sup> as well as three additional associated partners. In terms of its governance structure, the ALBATTTS Blueprint is led by a Coordinator – the Skellefteå municipality (SE) – which works in coordination with a Steering Board and a Steering Board Leader. All Blueprint activities are structured around six Work Packages, each managed by a different consortium member who acts as Task Leader. Out of the six Work Packages, two are transversal and four are dedicated to research, development and implementation of Sectoral Skills Intelligence as well as developing the vocational education and training offer in the sector.

### Key deliverables

The ALBATTTS Blueprint produced the following key deliverables:

- A series of [reports](#) and research outputs on key thematic areas including sectoral Intelligence and support to VET;
- A [Sectoral Skills Strategy](#) serving as a roadmap for the skills agenda within the battery sector;

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<sup>7</sup> A full list of partners is available in the Annex.

- Several dissemination measures focused on awareness raising.

The full list of deliverables is available on the ALBATTTS [website](#).

### Success factors

The success of the ALBATTTS Blueprint stems from a coherent collaboration between partners who are committed to bringing solutions to an emerging sector in Europe, which is challenged by security of supply and energy dependence. The Blueprint can engage in research on a wide range of topics, which can have a positive impact on its work. Another success factor is the need to promote skills intelligence and capacity-building results in increased efforts to implement creative and innovative approaches, build synergies and reinforce cooperation among stakeholders in the sector.

### Challenges faced

Some of the challenges faced by the ALBATTTS Blueprint are closely linked to the outbreak of the COVID-19 pandemic, which resulted in all events having to be moved to a partial or total virtual format. This led to a loss of networking opportunities between 2020 and 2021. Furthermore, the war in Ukraine and the disruptions of value chains represent another challenge currently being experienced by the sector, highlighting the need to ensure Europe's autonomy in the battery segment.

## **3. Key results and impacts**

While the work of the ALBATTTS Blueprint is still ongoing, one of the main results to date has been an increased level of cooperation between relevant stakeholders in the battery and electromobility value chain. This cooperation has enabled the development of a shared approach to vocational education and training for the battery production sector.

Other key results to date correspond to the Blueprint's main strands of work, namely: gathering intelligence on skills needs across the battery sector; identifying the skills, knowledge, competences and job roles needed in the vertically integrated cell production area; and conducting research on future skills needs. Through this work, the Blueprint is contributing to EU-level policymaking as it is currently involved in the updating of existing occupational profiles for the battery production sector in the ESCO classification system.<sup>8</sup> Other impactful workstreams include: developing training courses based on the needs of the sector; ensuring greater cooperation between companies and universities/VET providers to develop knowledge and skills for VET providers' staff through the development of a 'training the trainers' programme; and empowering key stakeholders in the battery energy sector by establishing shared values.

Lastly, the ALBATTTS Blueprint has made efforts to establish closer links and synergies with other relevant stakeholders and alliances in the sector to further strengthen the impact and outreach of its

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<sup>8</sup> <https://esco.ec.europa.eu/en>

work. This includes reinforcing its cooperation with the European Battery Alliance (EBA) Academy<sup>9</sup> on key topics (e.g. sectoral intelligence, skills cards, the development of learning material and ‘train the trainer’ solutions).

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

As part of its medium to long-term strategy, the ALBATTTS Blueprint has already made efforts to build strong links with the work currently being done under the Pact for Skills through the Automotive Skills Alliance (ASA).<sup>10</sup> As part of this process, ALBATTTS ensures that its members join the Pact and contribute to the ASA Batteries Working Group. Beyond the ASA Alliance, the ALBATTTS Blueprint is building synergies with other large-scale partnerships under the Pact for Skills across different ecosystems (e.g. shipbuilding, renewable energies, textile sectors) to explore opportunities for cooperation.

Lastly, to ensure long-term impact, the ALBATTTS Blueprint is currently focusing on developing strategies to further promote and streamline achieved results and on defining a harmonised sustainability plan. As part of this process, the legacy of the ALBATTTS achievements will most likely be transferred to the ASA Alliance, which is also an associate member of the Batteries European Partnership Association (BEPA).<sup>11</sup>

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – Dr. Anders Norberg, Education Strategist, Skellefteå Municipality – at [ske@project-albatts.eu](mailto:ske@project-albatts.eu) or [here](#).
- Check out the [website](#) of the ABLATTTS Blueprint.

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<sup>9</sup> <https://www.eba250.com/eba-academy/>

<sup>10</sup> <https://automotive-skills-alliance.eu/>

<sup>11</sup> <https://bepassociation.eu/>

# Alliance for Strategic Skills addressing Emerging Technologies in Defence – ASSETs+

## 1. Overview of the Blueprint

### Main aims and objectives

The [Alliance for Strategic Skills addressing Emerging Technologies in Defence – ASSETs+](#) aims to develop a skills strategy for defence technologies, particularly Artificial Intelligence, Robotics, C4ISTAR<sup>12</sup> and Cybersecurity. ASSETs+'s strategic goal is to ensure European sovereignty and autonomy in the defence sector by attracting highly skilled young workers and upskilling current employees.

ASSETs+ is supported by an EU grant of EUR 3.96 million. The work of the Blueprint started in 2020 and will continue until 2023.

## 2. Implementing the Blueprint

### Governance structure

The ASSETs+ consortium is coordinated by the University of Pisa in Italy alongside 29 partners from eight countries.<sup>13</sup> The Blueprint also involves associated partners as well as a network of 50 associated stakeholders who help define the project's strategic direction. Furthermore, the consortium appointed a board of external experts that complements and evaluates the Blueprint's outputs.

The Steering Committee of the ASSETs+ Blueprint, which meets every four months, is the main decision-making body of the project and provides strategic leadership. It is led by an industry representative and includes a representative from each type of stakeholder (company, sector representative, university and VET provider), as well as a Project Coordinator and a Quality Assurance Manager. ASSETs+ is implemented through eight Work Packages. Adjustments to the planning, including the involvement level of each partner, are monitored and reported during a weekly Coordination Team meeting (Coordinator + Work Package leaders). Recurring meetings are organised by each Work Package leader to address any issues concerning the tasks under each Work Package. Persisting issues are escalated to the Coordination Team and eventually to the Steering Committee.

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<sup>12</sup> Command, Control, Communications, Computers, Information/Intelligence, Surveillance, Targeting Acquisition and Reconnaissance.

<sup>13</sup> The full list of partners is available in the Annex.

Lastly, Industry meetings are also scheduled every month to keep the industrial partners engaged by providing a comprehensive view on the status of project activities.

### Key deliverables

The ASSETs+ Blueprint produced the following key deliverables.

- [Education and training programmes](#): 15 prototype courses that aim to provide attendees with new skills and knowledge related to key technologies expected in the defence sector in the coming years, with a focus on Artificial Intelligence, Robotics, C4ISTAR and Cybersecurity. The courses are available for ASSETs+ partners and associated stakeholders, and specifically designed for undergraduate and postgraduate students, and/or aerospace and defence professionals. The programmes are built on pedagogical approaches such as project-based learning, laboratory and challenges. Courses are currently being revised on the basis of the feedback collected to date.
- A [defence technologies roadmap](#) identifying job profiles and related skills and technologies. These are based on the research conducted by the ASSETs+ project team on [technologies](#) and [skills](#) required for different 'capability areas' in the sector.
- A [Body of Knowledge](#), which is a guidance document providing a detailed breakdown of the knowledge required by any person working for or on behalf of defence sector bodies or organisations.
- A [European Defence Skills Strategy](#), defining the defence sector's human resources needs and the actions to be implemented by the ASSETs+ Blueprint to address and mitigate them.
- A series of synthetic [fiches](#) highlighting best practices to address skills shortages and mismatches in the sector related to: international conferences; European projects; journals; policies; university courses; postgraduate studies; training; and funding opportunities.
- The [European Defence Challenge \(EDC\)](#): an open competition to attract young talents to the defence industry and encourage them to initiate a career in defence-related technologies. All undergraduate and graduate students from all faculties in European universities, VET centres and other institutions dedicated to education can participate.

The full list of deliverables is available on the ASSETs+ [website](#).

### Success factors

A key success factor of the ASSETs+ Blueprint has been the consortium partners' expertise. ASSETs+ benefits from a close collaboration between its members and close link with a wide ecosystem of stakeholders across the defence sector, sectoral organisations, higher education institutions, VET providers and research centres. The strong collaboration among these actors in the context of this Blueprint has the potential to result in stronger coordination between policymakers, industry representatives, and education and training stakeholders, which can ultimately lead to greater impact.

Another success factor can be identified in ASSETs+'s blended and iterative approach to its work, which combines data-driven analysis and human expertise. For example, ASSETs+ uses Big Data to analyse technical documents on skills for emerging technologies in defence and relies on this analysis to design education and training programmes. The Blueprint also organises holistic and future-oriented brainstorming sessions, harnessing the expertise of partners to gain in-depth understanding of all the facets of the defence sector (e.g. possible interrelations among cutting-edge technologies, the implication of well-suited competences and soft skills, and good practices to deploy at organisational and regulatory levels). Outputs are validated by industrial experts to stay aligned with the sector's needs. The process is conducted annually to closely monitor and spot emerging skills trends. This approach, leveraging both qualitative and quantitative techniques and methods, allows this Blueprint to achieve near real-time monitoring of the sector.

### Challenges faced

Since the start of its implementation, the ASSETs+ Blueprint has encountered a series of challenges, both related to the sector and the broader socio-economic context.

For instance, the design of education and training activities, due to the fast pace of the sector and the level of detail needed for the programmes to be effective, requires constant monitoring of the labour market to identify matches between the needs of companies and the training offers to fill in the skills gaps of current and future workforce. Aside from the specific context and needs of the sector, the COVID-19 crisis has resulted in additional challenges for the ASSETs+ Blueprint. On the one hand, the pandemic affected several partners' ability (i.e. management of emergencies, staff partial unemployment), putting a strain on the project and causing delays in the delivery of a number of outputs. On the other hand, lockdown measures caused disruptions in education systems, albeit also opening up new opportunities by promoting online learning on a large scale.

## **3. Key results and impacts**

Access to qualified skills is a challenge for the European defence industry, and ASSETs+ is actively working to address this challenge by attracting students to the sector. To this end, the project has developed 15 education prototype courses to date with the aim to provide students with new skills and knowledge related to key technologies relevant for the sector. Moreover, the above-mentioned European Defence Challenge saw the participation of over 303 students from more than 50 higher education institutions across Europe.

The Blueprint has been successful in building an extensive network of contacts in the sector, as it currently counts 50 associated stakeholders and more than 90 experts have been involved in ASSETs+ activities. These activities include workshops to establish the ASSETs+ strategy for developing skills and competences for the defence sector, where 279 ideas were generated. The Blueprint's web presence also has a strong outreach as the ASSETs+ website received almost 8 000 unique visits in 2022 and the LinkedIn page reached almost 500 followers. The ASSETs+ Blueprint has also achieved good visibility by participating in 17 national and international conferences, forums and summits to present the project and its contribution towards addressing the skill needs of the European defence industry.



Lastly, ASSETS+ contributed to the new version of the ESCO system.<sup>14</sup>

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

The post COVID-19 recovery and emerging new technologies are transforming the way people work and acquire new skills, forcing businesses to quickly adapt and train their own workforce, particularly in a fast-changing sector such as defence. In this context, in order to foster skills acquisition and to keep the workforce up-to-date throughout the life course, ASSETS+ is working to develop demand-led upskilling and reskilling training programmes on cutting-edge technologies. Furthermore, ASSETS+ is working on developing a sustainable strategy for developing human resources in the defence sector based on six pillars: qualifications; policies; project and funds; technologies; human resources; technical standards; and best practices.

To maximise its impact and strengthen cooperation with key stakeholders to collectively address the challenges caused by the COVID-19 crisis and the changing nature of the labour market, ASSETS+ has built strong synergies with and is fully engaged in the Pact for Skills. As a member of the Pact, ASSETS+ has contributed to several events and workshops targeting the defence sector.<sup>15</sup>

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – Gualtiero Fantoni, Associate Professor, University of Pisa – at [gualtiero.fantoni@unipi.it](mailto:gualtiero.fantoni@unipi.it) or [here](#).
- Check out the [website](#) of the ASSETS+ Blueprint.

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<sup>14</sup> <https://esco.ec.europa.eu/en>

<sup>15</sup> <https://assets-plus.eu/about-the-project/pact-for-skills/>

# Blueprint for Sectoral Cooperation on Skills in Work Integration Social Enterprises – B-WISE

## 1. Overview of the Blueprint

### Main aims and objectives

The [Blueprint for Sectoral Cooperation on Skills in Work Integration Social Enterprises – B-WISE](#) aims to develop a European strategy that addresses skills needs with a focus on digital skills in Work Integration Social Enterprises (WISEs). B-WISE targets the skills needs of workers, as well as of guidance and training providers (e.g. job coaches, trainers) and enablers (e.g. managers, developers), and promotes the attractiveness of the WISEs sector as a career choice and its value to support labour market integration of vulnerable groups. In doing so, B-WISE raises awareness on the importance of the use of digital technologies to support vulnerable workers in work integration trajectories.

B-WISE is supported by an EU grant of EUR 3.9 million. The work of the Blueprint started in 2021 and will continue until 2024.

## 2. Implementing the Blueprint

### Governance structure

The B-WISE consortium is coordinated by the European Association of Service Providers for Persons with Disabilities (EASPD)<sup>16</sup> and the European Network for Social Integration Enterprises (ENSIE)<sup>17</sup> and is composed of 30 partners from 13 different countries.<sup>18</sup> These partners include European networks, WISEs sector representatives, VET providers and European research institutes. The partners are supported by an Advisory Board, which gathers seven umbrella organisations, one international organisation and eight representatives of national and regional authorities. The governance structure is further complemented by a General Assembly and a Steering Committee.

### Key deliverables

The B-WISE Blueprint produced the following key deliverables:

- An information [leaflet](#) on the B-WISE project.

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<sup>16</sup> <https://www.easpd.eu/>

<sup>17</sup> <https://www.ensie.org/#:~:text=What%20is%20ENSIE%20%3F,of%20employment%20at%20European%20level.>

<sup>18</sup> The full list of partners is provided in the Annex

- The '[Trends and challenges for Work Integration Social Enterprises \(WISEs\) in Europe. Current situation of skills gaps, especially in the digital area](#)' report, which aims to contribute to the development of a strategic approach to sectoral cooperation and to sustainably tackle the digitalisation challenges faced by WISEs and their workers. This report also provides a picture of the presence of WISEs across Europe as well a typology of WISEs.
- [Report on understanding user \(digital\) skills needs in WISEs](#).
- Report on Occupational Profiles in WISEs sector.<sup>19</sup>
- Learning outcome statement.<sup>20</sup>

The full list of deliverables is available on the B-WISE [website](#).

### *Success factors*

A key success factor for the work of the B-WISE Blueprint has been its diverse membership that brings together different actors, each of whom contributes to the project with their rich expertise and commitment to the social field. Another success factor is represented by B-WISE's well-established and structured governance structure. Efforts to ensure ongoing communication between the Blueprint Coordinator, the General Assembly, the Steering Committee, the Advisory Board and the European Commission have been beneficial to the implementation of the Blueprint deliverables.

### *Challenges faced*

Analysing national data from 13 different countries and 30 different partners represents a challenge for B-WISE. However, this wealth of information also represents an important added value for the work of the Blueprint and the Social Economy sector more broadly. Furthermore, another challenge can be identified in the different regulations in the Member States represented in the B-WISE consortium, which made the certification of training curricula in the 13 participating countries more complex.

Lastly, over the past two years, the COVID-19 pandemic affected communication within the Blueprint consortium as it became increasingly difficult to coordinate due to most meetings being moved online during the first year and a half of the project implementation.

## **3. Key results and impacts**

One of the main achievements of the B-WISE Blueprint has been the publication of the report on 'Trends and challenges for Work Integration Social Enterprises (WISEs) in Europe'<sup>21</sup> as it provides an overview of the WISEs sector across Europe and identifies the relevant skills needs. This report represents an important starting point for the Blueprint to map the state of play in the sector and identify actions to

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<sup>19</sup> Currently not available on the B-WISE website.

<sup>20</sup> Currently not available on the B-WISE website.

<sup>21</sup> [https://www.bwiseproject.eu/Portals/bewise/OpenContent/Files/1130/B-wise\\_WP1\\_Research\\_Report-1.pdf](https://www.bwiseproject.eu/Portals/bewise/OpenContent/Files/1130/B-wise_WP1_Research_Report-1.pdf)

support workers to develop skills. Through its work on assessing current and future skills needs, the Blueprint is also contributing to the update of existing occupational profiles for the WISEs sector in the ESCO classification system.<sup>22</sup> Furthermore, the training curricula that have been implemented by the Blueprint are key steps that contribute to closing the skills gap in the WISEs sector.

Lastly, a key result that B-WISE is working towards achieving is raising general awareness of the WISEs sector as a career choice and highlight the importance of digital skills and of the use of digital technologies to help people in need.

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

B-WISE has created strong links with the Pact for Skills as several partners in the Blueprint consortium are also members of the Pact for Skills large-scale partnership in the Social Economy and Proximity ecosystem.<sup>23</sup> This close link will ensure that the two initiatives can mutually reinforce each other and that the results and deliverables of the B-WISE Blueprint can be further disseminated through the large-scale partnership.

Lastly, the B-WISE Blueprint aims to develop a European strategy to continue addressing skills needs in the WISEs sector even after the completion of the project.

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – Nóra Györke, Project Officer at EASPD – at [nora.gyorke@easpd.eu](mailto:nora.gyorke@easpd.eu) or [here](#).
- Check out the [website](#) of the B-WISE Blueprint.

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<sup>22</sup> <https://esco.ec.europa.eu/en>

<sup>23</sup> <https://ec.europa.eu/social/main.jsp?langId=en&catId=1517&newsId=10249&furtherNews=yes>

# Blueprint for Sectoral Cooperation on Blockchain Skill Development – CHAISE

## 1. Overview of the Blueprint

### *Main aims and objectives*

The [Blueprint for Sectoral Cooperation on Blockchain Skills Development – CHAISE](#) aims to put forward a European strategy to address skills mismatches and shortages in the blockchain sector, and deliver appropriate and future-focused training as well as qualifications and mobility solutions geared to sectoral realities and needs.

CHAISE is supported by an EU grant of EUR 3.9 million. The work of the Blueprint started in 2020 and will continue until 2024.

## 2. Implementing the Blueprint

### *Governance structure*

The CHAISE consortium, coordinated by the University Claude Bernard Lyon 1 in France,<sup>24</sup> is composed of 23 partners from 13 different countries.<sup>25</sup> An Expert Advisory Board provides technical and scientific support to the Blueprint. This Expert Advisory Board gathers 17 experts and representatives from industry, education, policymaking, civil society and scientific communities from 15 countries.

### *Key deliverables*

The CHAISE Blueprint produced the following key deliverables:

- Blockchain registries of relevant opportunities: These include: the [Registry of Blockchain educational training and offerings](#); the [Registry of Blockchain online job vacancies](#); and the [Registry of Blockchain skills matching initiatives](#);
- Several studies on key issues relevant to the blockchain sector: These include: the [Study on Blockchain labour market characteristics](#); the [Study on Blockchain skills demand](#); the [Study on Blockchain skills supply](#); the [Study on skills mismatches in the Blockchain sector](#); and the [Study on the EU Blockchain Growth Strategy](#);
- The report on [Blockchain Learning Outcome Support](#) and the report on the [European Blockchain Skills Strategy](#);

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<sup>24</sup> <https://www.univ-lyon1.fr/en>

<sup>25</sup> The full list of partners is provided in the Annex.

- A [Blockchain Skills Forecasting Model](#) to act as a collaborative method for the anticipation of future skill demand and supply;
- A [factsheet](#) on Blockchain Skills Forecast;
- A report on [Annual Blockchain Skills Forecasts](#) outlining a methodological framework to estimate the current demand for blockchain skills by using data scraping technologies;
- A [Curriculum Structure](#).

### *Success factors*

The quality of the project design, its timely implementation and the allocation of sufficient funding are considered key to the success of this Blueprint as well as efficient internal collaboration and partners' commitment. The identification of synergies with other skills alliances/Blueprints and thematically relevant projects has also been a crucial success factor, together with the outreach to other stakeholders through partners' own networks as external organisations can bring added value to Blueprint activities.

Lastly, well-established internal and external quality assurance procedures and effective dissemination activities also ensure that high-quality deliverables are circulated to relevant recipients and target groups.

### *Challenges faced*

The COVID-19 pandemic disrupted the Blueprint's smooth implementation and development. In addition, the low maturity of blockchain ecosystems and limited availability of blockchain-related evidence (e.g. statistics) was a major barrier to the analysis of the blockchain field.

## **3. Key results and impacts**

The Blueprint leads the implementation of an institutionally validated European Blockchain Skills Strategy by coordinating the relevant stakeholders and by setting up the mechanisms for strategic collaboration at European and national levels.

CHAISE has developed a forecasting mechanism to anticipate future blockchain skills needs through setting up a collaborative method for monitoring the evolution of workplace requirements. By defining EU-wide occupational requirements for the blockchain workforce, the Blueprint contributed to the update of existing blockchain occupational profiles in the ESCO classification system<sup>26</sup> (i.e. Blockchain Developer and Blockchain Architect), as well as to the introduction of a new profile (i.e. Blockchain Manager).

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<sup>26</sup> <https://esco.ec.europa.eu/en>

CHAISE set up a network of experts and associated partners to discuss and exchange blockchain skill needs and developed an online registry with blockchain training offers across the EU. The latter provides information to small and medium-sized enterprises (SMEs) and their employees regarding available upskilling and reskilling opportunities.

Lastly, CHAISE will develop an innovative five-semester Blockchain VET Programme in 11 EU languages to address technical, non-technical and cross-discipline skill needs, and design transnational mobility schemes for blockchain students and professionals. The entire curriculum consists of 12 modules that are further broken down into 48 lectures, providing 120 credit points in total and leading to the award of a professional qualification (based on the chosen specialisation). The curriculum provides 1 200 hours of theoretical and 480 hours of practical (work-based) learning, employing a modular structure to facilitate deployment in both formal and informal C-VET environments.

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

The CHAISE Blueprint has built strong synergies with the Pact for Skills as an avenue to both further contribute to boosting upskilling and reskilling, and to strengthen the outreach and impact of its deliverables.

CHAISE joined the Pact for Skills as a member and has contributed to the Pact in several ways. This includes through its work on identifying skills needs in the blockchain field, thus enhancing labour market and skills intelligence for the digital ecosystem, or by sharing its Labour Market Analysis tools to identify workplace requirements and skills needs in the sector. Furthermore, the Blueprint contributes to the Pact for Skills through the creation of a network of experts to discuss and exchange blockchain skill needs, and through the formulation of an industry-validated strategy to advance blockchain skills development in Europe.

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – Professor Parisa Ghodous-Shariat Torbaghan, Université Claude Bernard Lyon 1 – at [parisa.ghodous-shariat-torbaghan@univ-lyon1.fr](mailto:parisa.ghodous-shariat-torbaghan@univ-lyon1.fr) or [here](#).
- Check out the [website](#) of the CHAISE Blueprint.

# Blueprint for Cultural Heritage Actions to Refine Training, Education and Roles – CHARTER

## 1. Overview of the Blueprint

### Main aims and objectives

The [Cultural Heritage Actions to Refine Training, Education and Roles – CHARTER](#) Blueprint aims to create a lasting, comprehensive Sectoral Skills Strategy which would guarantee that Europe has the necessary cultural heritage skills to support sustainable societies and economies. These skills include transversal competences such as digital/technological and green/blue economy skills.

CHARTER is supported by an EU grant of EUR 3.99 million. The work of the Blueprint started in 2021 and will continue until 2024.

## 2. Implementing the Blueprint

### Governance structure

The CHARTER consortium is coordinated by the University of Barcelona<sup>27</sup> and is composed of 28 full and affiliate members, and 19 associate members from 15 countries.<sup>28</sup> The consortium combines a diverse and multi-focal group of stakeholders representing different fields of expertise, such as: education and training providers; industry representatives and employers; European and international networks; and regions.

The consortium is led by a Steering Committee, composed by the Project Coordinator and the leaders and co-leaders of each of the seven Work Packages. The Steering Committee is tasked with monitoring the development, activities and plan of each Work Package.

### Key deliverables

The CHARTER Blueprint produced the following key deliverables:

- A CHARTER [brochure](#) available in several languages;
- A [preliminary findings report](#) on heritage professions (presentation of the CHARTER Cultural Heritage Ecosystem Model);

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<sup>27</sup> <https://www.ub.edu/web/portal/en/>

<sup>28</sup> The full list of members is provided in the Annex.



- A [report](#) on qualifications and on how formal and non-formal education and training are transmitted, and how these pathways may lead to qualifications for cultural heritage jobs and professions;
- [Factsheets](#) on families of cultural heritage competences;
- A [report](#) on benchmarking analysis of innovative/emerging curricula, which defines, identifies and benchmarks innovative/emerging curricula to train candidates for innovative/emerging professional profiles in the cultural heritage sector;
- The 'Who is not a stakeholder in cultural heritage?' [report](#) mapping key stakeholders in the cultural heritage sector;
- Several communication tools, including a newsletter and a '[CHARTER news](#)' section on the Blueprint's website where articles, flash news, interviews, webinars and links to external content and events are regularly published.

The full list of key deliverables is available on the CHARTER [website](#).

#### Success factors

An effective communication strategy and the creation of synergies between stakeholders, institutions, programmes and sectoral initiatives contributed to the success of the first stage of the Blueprint implementation. Efficient internal procedures to manage the large partner consortium have been implemented, including through the adoption of management plans by the Work Packages leaders. Another success factor is that the CHARTER project includes a component to test its methodology and findings through analysing specific regional ecosystems as part of its regional roll-out strategy. Regional workshops have been organised in Évora (Portugal), Bremerhaven (Germany) and Sibiu (Romania).

#### Challenges faced

Some of the challenges faced by CHARTER are related to language barriers within the culture and heritage sectors as not all stakeholders speak English (i.e. the working language of the Blueprint). To ensure their involvement and active participation, a number of translation and interpretation services had to be put in place.

As with other Blueprints, the COVID-19 pandemic brought about several additional challenges. Internally, it made the implementation and management of a large consortium much more difficult as meetings and events had to be organised online. Furthermore, the COVID-19 crisis had a dramatic impact on the culture and heritage sectors, making the work of the CHARTER Blueprint even more relevant.

### **3. Key results and impacts**

Despite its relatively recent start, the CHARTER Blueprint has already achieved several identifiable impacts. For example, the report on a new landscape for heritage professions allowed to increase awareness of cultural heritage as a sector of increasing economic value that permeates several other

economic sectors due to its broad innovation potential and societal impact. It also has the potential to support the development of a common approach to the classification of cultural heritage in educational, occupational and economic frameworks across Europe, with a view to define more aligned curricula for cultural heritage studies' recognition. Moreover, the report on cultural heritage education and training in Europe contributes to a better understanding of how education and training lead to qualifications in the cultural and heritage sector. The CHARTER factsheets not only help identify professional skills and competences in the heritage sector, draft competences profiles and suggest relevant tools, but they also allow to identify needs and gaps in the education and training provision and contribute to an integrated strategy for capacity building and professional recognition in the sector. Through this work, the CHARTER Blueprint is also contributing to EU-level policymaking by providing input for the updating of existing occupational profiles for the cultural heritage sector in the ESCO classification system.<sup>29</sup>

In 2022, CHARTER received the EU Social Award for the Best Social Media Activity, which recognises the project's achievements in aspects related to social media communication and management.<sup>30</sup>

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

The Blueprint has been linked to the Pact for Skills initiative since its inception. Beyond attendance to diverse Pact for Skills meetings, several consortium members are also actively involved in working groups established under the Pact to cooperate and identify next steps for the sector. Potential synergies between CHARTER and the large-scale partnership for the Cultural and Creative Industries ecosystem are currently being explored as the Blueprint aims to be actively involved in the Pact for Skills.

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – Dr. Lluís Bonet – at [lbonet@ub.edu](mailto:lbonet@ub.edu) or [here](#).
- Check out the [website](#) of the CHARTER Blueprint.

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<sup>29</sup> <https://esco.ec.europa.eu/en>

<sup>30</sup> <https://charter-alliance.eu/charter-wins-eu-social-award/>

# Establishing a new Strategy on Construction Skills in Europe – Construction Blueprint

## 1. Overview of the Blueprint

### Main aims and objectives

The [Establishing a new Strategy on Construction Skills in Europe – Construction Blueprint](#) aims to develop a skills strategy for the construction industry. It seeks to support a better alignment between companies' skills needs and those taught in vocational training centres, focusing on themes such as energy efficiency, circular economy and the digitalisation of the construction industry.

The Construction Blueprint is supported by an EU grant of EUR 4 million. The work of the Blueprint started in 2019 and will continue until March 2023.

## 2. Implementing the Blueprint

### Governance structure

The Construction Blueprint consortium is led by the Spanish Fundación Laboral de la Construcción<sup>31</sup> and is composed of 24 partners from 12 countries.<sup>32</sup> The consortium gathers three sectoral European organisations, nine national sectoral representatives and 12 VET and higher education providers.

The consortium developed an elaborate governance structure. Technical issues are monitored by project leaders appointed by each partner. They report to Work Package leaders who, in turn, report to the lead project manager. Each partner appointed at least a project manager, a team leader, a technician, a financial officer, an administrative assistant and communication staff to manage the Blueprint. Partners have also appointed separate National Advisory Groups in every participating Member State, consisting of local experts from the training field and the construction industry. The National Advisory Groups provide external feedback to improve the work of the Construction Blueprint. Their contribution varies, from evaluation of results to participation in dissemination activities and/or exchange of knowledge and practices.

### Key deliverables

The Construction Blueprint produced the following key deliverables:

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<sup>31</sup> <https://www.fundacionlaboral.org/>

<sup>32</sup> The full list of members is provided in the Annex.

- Two surveys identifying [skills needed](#) in the European construction sector.
- A [Roadmap and Action Plan](#) (Sector Skills Strategy) outlining the strategies, measures, activities, results and plan of action to be adopted to align the construction industry's skills demands with the current skills offer.
- An [interactive map](#) presenting good practices related to skills needs in the construction industry across consortium countries. These good practices provide information on the leading organisation, aims, target groups and impact of the initiative.
- [New VET curricula](#) and training content, as well as an [e-learning platform](#) offering free MOOCs and tutorised VET courses on energy efficiency, circular economy, and digitalisation.
- A [report](#) identifying occupational job profiles to be upskilled, with information from the individual countries represented in the consortium.

The full list of deliverables is available on the Construction Blueprint [website](#).

#### *Success factors*

A key success factor for the Construction Blueprint has been the strong level of commitment from consortium partners, which has had a positive impact on the quality of results. Partners proved to be resilient, flexible when reacting to new challenges in the sector and used online tools to continue working together during the COVID-19 pandemic. It has also shown the need to use regular feedback to engage with partners and ensure their involvement and receptiveness by promoting bi-lateral dialogue during the project. It is important to notify partners about the evolution of outcomes, bottlenecks or critical points and consequently adjust the work. Meetings can be used to make decisions collectively and agree on the necessary corrective actions. Each Work Package leader promoted a proactive approach to ensure active participation from all partners.

The National Advisory Groups demonstrated to be a successful mechanism to review the partnership's work and ensure its success by revising and validating results. Lastly, regular monthly news sent to all partners, meetings with Work Package leaders and agile project management proved to be useful tools for project implementation.

#### *Challenges faced*

The Construction Blueprint operates in an industry that faces challenges on innovation, employment and competitiveness, which can affect the project activities. While the COVID-19 crisis encouraged consortium partners to experiment alternative ways of working to ensure the Blueprint work would continue, a three-month extension to finalise the outputs had to be requested as the outbreak of the pandemic caused delays in the project.

### **3. Key results and impacts**

The most impactful activity of the Construction Blueprint is linked to the work being done to develop a Sector Skills Strategy, paired with the establishment of new VET curricula to address skills needs. The

training contents developed under these curricula are currently being piloted by VET providers in the consortium countries, targeting at least 600 participants.

Furthermore, as the Construction Blueprint works to promote the attractiveness of the construction industry as a first vocational choice among young people and women, its efforts to gather best practices and launch campaigns, both in-person (in primary schools for example) and on social media, are particularly impactful. Linked to this, the role of the Sector Skills Alliance website<sup>33</sup> in identifying and promoting existing solutions to facilitate the mobility of VET students, unemployed people, trainees, job seekers, trainers and training staff in Europe has been crucial.

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

The consortium is currently preparing a sustainability plan that will propose ways to use the Blueprint's results after the EU grant ends. Several partners have already joined the Pact for Skills for the construction ecosystem and many are in the process of doing so. By joining the Pact, partners commit to developing their own programmes and activities to respond to the construction sector's priorities.

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinators – Javier Gonzalez, Head of International Projects, Fundación Laboral de la Construcción (FLC), Silvia Santos, Technical Coordinator of the Construction Blueprint and Beatriz Oliete, Head of Training Projects department, Fundación Laboral de la Construcción (FLC) – at [jgonzalez@fundacionlaboral.org](mailto:jgonzalez@fundacionlaboral.org), [ssantos@fundacionlaboral.org](mailto:ssantos@fundacionlaboral.org) and [boliete@fundacionlaboral.org](mailto:boliete@fundacionlaboral.org) or [here](#).
- Check out the [website](#) of the Construction Blueprint.

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<sup>33</sup> [https://constructionblueprint.eu/sectoral\\_skills\\_alliance/](https://constructionblueprint.eu/sectoral_skills_alliance/)

# Development and Research on Innovative Vocational Education Skills – DRIVES

## 1. Overview of the Blueprint

### *Main aims and objectives*

[Development and Research on Innovative Vocational Education Skills – DRIVES](#) aimed to develop a skills strategy for the automotive sector. It focused on improving human capital at all stages of the automotive supply chain, from vehicle production, automotive suppliers and sales to aftermarket services.

DRIVES was supported by an EU grant of EUR 3.98 million and was implemented between 2018 and 2022.

## 2. Implementing the Blueprint

### *Governance structure*

The DRIVES consortium was coordinated by the VSB-Technical University of Ostrava<sup>34</sup> in Czech Republic (VSB-TUO) and composed of a total of 24 partners from 11 countries.<sup>35</sup> The Blueprint implementation was directed by a Steering Board led by the European Automobile Manufacturers' Association (ACEA),<sup>36</sup> the European Association of Automotive Suppliers (CLEPA)<sup>37</sup> and the European Tyre and Rubber Manufacturers' Association (ETRMA).<sup>38</sup> The Steering Board was responsible for overseeing the project's coordination and delivery of each of the six Work Packages. The DRIVES Blueprint involved a mix of 24 full project partners, as well as a wide group of stakeholders supporting the Blueprint by participating in online surveys, workshops and review of outcomes.

### *Key deliverables*

The DRIVES Blueprint produced the following key deliverables:

- Surveys and reports analysing sectoral skills [demand](#) and [offer](#), as well as the [gaps](#) between them;
- A [Sectoral Skills Strategy](#) for the Automotive Sector, including an overview of actions to be taken;

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<sup>34</sup> <https://www.vsb.cz/en>

<sup>35</sup> The full list of partners is provided in the Annex.

<sup>36</sup> <https://www.acea.auto/>

<sup>37</sup> <https://clepa.eu/>

<sup>38</sup> <https://www.etrma.org/>

- A [guide](#) for hiring apprentices;
- A [list](#) of 40 emerging Job Roles and related skills was established based on stakeholders' intelligence;
- The [DRIVES Learning Platform](#) providing 28 MOOC courses, accessible for free to individuals, companies or education and training providers;
- The [DRIVES Framework](#) gathering training and education courses available across the EU with the possibility for the Blueprint to issue its own micro credentials;
- A [Good Practice Resource Tool](#) compiling examples of good and/or innovative practices relating to apprenticeships in the automotive sector;
- Dissemination activities such as webinars and other online and/or in-person events

The full list of deliverables is available on the DRIVES [website](#).

#### *Success factors*

A key success factor for DRIVES was the active involvement of key stakeholders within the automotive industry, who were represented by umbrella associations. In addition, the strong collaboration between all relevant actors, including industry, vocational education and training providers, social partners and key regions in the sector contributed to the Blueprint's successful implementation and sustainability.

Furthermore, ensuring that the Blueprint had a clear direction by implementing activities around four main axes (Skills Intelligence, Job Roles Definition, Training Offer and Skills Recognition, Apprenticeships and Sustainability of the collaboration to the future) ensured efficient project management and internal coherence.

#### *Challenges faced*

As the first Blueprint, a challenge faced by DRIVES was explaining the objectives and the potential of the Blueprint initiative to relevant stakeholders. However, this was an opportunity to reach out to key actors and develop new collaborations in the automotive sector.

### **3. Key results and impacts**

All DRIVES documents relating to Sectoral Skills Intelligence, Sectoral Skills Strategy and apprenticeship analysis have been widely disseminated and used. MOOC courses on the dedicated DRIVES Learning Platform reached more than 2 750 enrolments. Moreover, more than 3 700 'digital badges' were awarded as part of the DRIVES Framework, certifying 420 people's competences in the automotive sector.

The Blueprint's work on creating training curricula, identifying job profiles and corresponding skills and/or learning outcomes has contributed to further supporting the development of European Vocational Core Profiles (EVCPs).

DRIVES either organised or participated in more than 115 relevant dissemination events. The evaluation of the dissemination activities carried out by DRIVES highlighted that the Blueprint stakeholders database grew from 300 to 1 500 people and that the Blueprint's number of followers on social media continued to increase throughout the project, reaching 1 071 followers in May 2022 on LinkedIn, Facebook and Twitter combined.<sup>39</sup>

#### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

DRIVES managed to establish strong links with the Pact for Skills by contributing to the establishment of large-scale partnerships in the Automotive ecosystem – the Automotive Skills Alliance. Several DRIVES deliverables (e.g. Sectoral Skills Strategy, Sectoral Intelligence, DRIVES Framework and DRIVES Learning Platform) can positively contribute to the Automotive Skills Alliance's work, as they lay the groundwork for solving skills mismatches and rendering the sector future-proof.

Furthermore, the lessons learned through the DRIVES Blueprint have been shared with others, for example through the ALBATTIS Blueprint.

DRIVES' efforts to build synergies both with the Pact for Skills and other Blueprints can ensure the sustainability and long-term impact of project outcomes. To this end, DRIVES also published a sustainability and legacy plan,<sup>40</sup> reflecting on how to ensure further collaborations on skills within the network after the project's completion.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Dr. Jakub Stolfa, VSB-Technical University of Ostrava (VSB-TUO) – at [jakub.stolfa@vsb.cz](mailto:jakub.stolfa@vsb.cz) or at [info@project-drives.eu](mailto:info@project-drives.eu)
- Check out the [website](#) of the DRIVES Blueprint.

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<sup>39</sup> [https://www.project-drives.eu/Media/Publications/220/Publications\\_220\\_20220621\\_191721.pdf](https://www.project-drives.eu/Media/Publications/220/Publications_220_20220621_191721.pdf)

<sup>40</sup> [https://www.project-drives.eu/Media/Publications/225/Publications\\_225\\_20220711\\_10218.pdf](https://www.project-drives.eu/Media/Publications/225/Publications_225_20220711_10218.pdf)



# Education for Digitalisation of Energy – EDDIE

## 1. Overview of the Blueprint

### *Main aims and objectives*

[Education for Digitalisation of Energy - EDDIE](#) aims to develop a skills strategy for the digitalisation of the energy sector. The Blueprint seeks to align the skills supplied by training providers (VET, universities and others) with the current and future skills needs in the energy sector labour market.

EDDIE is supported by an EU grant of EUR 3.99 million. The work of the Blueprint started in 2020 and will continue until the end of 2023.

## 2. Implementing the Blueprint

### *Governance structure*

The EDDIE consortium is led by the Comillas Pontifical University<sup>41</sup> in Spain alongside 16 partners from ten countries.<sup>42</sup> The project is implemented through eight Work Packages.

The Project Management Board is the top decision-making body of the consortium, and it is composed by representatives of all the partners. The Project Technical Committee is the decision body in charge of the day-to-day management of the Blueprint, which is composed of Work Package leaders. Finally, the International Advisory Board provides quality control and feedback.

### *Key deliverables*

The EDDIE Blueprint produced the following key deliverables:

- A [Sector Skills Strategy](#) to outline examples of national and regional level policies and initiatives addressing skill shortages and mismatches as well as fostering multi-stakeholder partnerships;
- Reports addressing [current skills gaps](#) of professionals and students and identifying [current and future skills needs](#) in the energy sector;
- A [database](#) of all relevant stakeholders in the energy value chain;
- A [comparative analysis](#) of VET systems in five European countries;

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<sup>41</sup> <https://www.comillas.edu/en/>

<sup>42</sup> The full list of partners is provided in the Annex.

- [Draft templates](#) for educational programmes (both initial and continuous training activities);
- Reports on best practices for [university education](#), [continuous learning](#) and [VET systems](#).

The full list of deliverables is available on the EDDIE [website](#).

### *Success factors*

The strong collaboration between the Blueprint partners and other relevant stakeholders (such as the International Advisory Board members and other institutions) represents a key success factor as it allowed EDDIE to better identify different gaps and needs for education in the energy sector, and work on a skills strategy for the sector. The partners' expertise in comparable European projects has created an efficient working environment.

### *Challenges faced*

A fundamental challenge is the scope of the energy sector itself, as it covers multiple sub-sectors and a wide range of stakeholders. Furthermore, it has been challenging for the EDDIE Blueprint to find its place within other flagship EU-level initiatives focused on skills development, upskilling and reskilling, including the Pact for Skills since the Blueprint covers more than one industrial ecosystem (renewable energy and digital). However, this challenge is being overcome by building stronger synergies between EDDIE and the Pact for Skills, including through the establishment of a large-scale partnership in the renewable energy ecosystem, and cooperating with the existing large-scale partnership in the digital ecosystem.

## **3. Key results and impacts**

The Blueprint has so far highlighted the main challenges the industry faces due to the digitalisation of the energy system and has identified the new skills required in the sector. By developing a common approach for assessing the current situation and anticipating needs, progress towards closing the skills gap can be monitored efficiently. Thanks to the work done by the EDDIE Blueprint to compile best practices in VET, university education and continuous learning, stakeholders across the sector have access to inspiring examples that they can apply to their own work. Furthermore, through its efforts to identify skills needs and gaps in the sector, EDDIE has been involved in the revision of the energy sector in the context of the update of the ESCO classification system.<sup>43</sup>

Lastly, the Blueprint has managed to achieve high visibility and online engagement thanks to its rich offer of online activities to targeted stakeholders.

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<sup>43</sup> <https://esco.ec.europa.eu/en>

## 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

The Sector Skills Strategy currently developed by the EDDIE Blueprint will be piloted and later integrated in existing educational/training frameworks (e.g. university-school curricula, industrial training programmes) to guarantee long-term impact. A new entity, to be set up during the last year of EDDIE, will be responsible for managing a wide range of online services after the end of the project, to ensure the sustainability of the strategy and streamline results. These services will aim to: connect stakeholders; provide useful information related to skills gaps, training, validation, certification, monitoring and research; promote available training programmes and employment opportunities; and disseminate sector-related tools and systems.

The EDDIE Blueprint joined the Pact for Skills in 2021 and has been engaging in activities and events since then, exploring synergies with other industrial ecosystems that are relevant to its work and relative skills needs. Further links between EDDIE and the Pact for Skills are currently being established, including through the 2022 'Digitalising the energy system – EU action plan'<sup>44</sup> which identifies EDDIE as the organisation to coordinate, with the support of the European Commission, the establishment of a large-scale partnership for the digitalisation of the energy value chain under the renewable energy ecosystem. To further implement the Action Plan, synergies will be sought with the upcoming 'Gathering Energy and Digital innovators' platform.<sup>45</sup>

### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Dr. Fernando de Cuadra, Professor at ETSI-ICAI and ITT – Institute for Research in Technology, Universidad Pontificia Comillas – at [cuadra@comillas.edu](mailto:cuadra@comillas.edu) or at [info@eddie-erasmus.eu](mailto:info@eddie-erasmus.eu)
- Check out the [website](#) of the EDDIE Blueprint.

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<sup>44</sup> (COM (2022) 552 final), p. 11

<sup>45</sup> SWD (2022) 341 final, p. 33

# Towards an innovative strategy for skills development and capacity building in the space geo-information sector supporting Copernicus User Uptake – EO4GEO

## 1. Overview of the Blueprint

### *Main aims and objectives*

[Towards an innovative strategy for skills development and capacity building in the space geo-information sector supporting Copernicus User Uptake – EO4GEO](#) aimed to bridge potential gaps between the skills taught and the skills needed at European level in the space/geospatial sector. EO4GEO sought to foster the uptake and integration of space/geospatial data and services in a broad range of application domains such as smart cities, climate change adaptation, emergency response, real estate and building management, tourism and management of cultural heritage.

EO4GEO was supported by an EU grant of EUR 3.87 million and was implemented between 2018 and 2022.

## 2. Implementing the Blueprint

### *Governance structure*

The EO4GEO consortium was led by the Geographical Information Systems International Group Association (GISIG),<sup>46</sup> based in Italy, and is comprised of a total of 25 partners from 12 countries.<sup>47</sup> The Blueprint Steering Committee was composed of the representatives of GISIG as general Project Coordinator, KU Leuven<sup>48</sup> as Scientific and Technical Coordinator, PLUS<sup>49</sup> as Education and Training Coordinator and Climate-KIC<sup>50</sup> as Exploitation Coordinator. The consortium was supported by a strong group of over 50 associated partners, including associations or networks active in the same fields, as well as an Advisory Board of individual experts. Many partners are members of the Copernicus Academy Network<sup>51</sup> set up by the European Commission as part of its Earth Observation programme – Copernicus.<sup>52</sup>

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<sup>46</sup> <http://www.gisig.eu/>

<sup>47</sup> The full list of partners and associates is provided in the Annex.

<sup>48</sup> <https://www.kuleuven.be/kuleuven/>

<sup>49</sup> <https://www.plus.ac.at/>

<sup>50</sup> <https://www.climate-kic.org/>

<sup>51</sup> <https://www.copernicus.eu/en/opportunities/education/copernicus-academy>

<sup>52</sup> <https://www.copernicus.eu/en>

### Key deliverables

The EO4GEO Blueprint produced the following key deliverables:

- [Body of Knowledge](#): An inventory of 1 000 relevant concepts, knowledge resources and skills for the Earth Observation and Geo-Information (EO/GI) sectors, available through a user-friendly online search tool;
- [EO4GEO Tools](#): a suite of tools based on the information available in the Body of Knowledge and targeting training and educational providers working in the field, as well as companies, public sector organisations, NGOs, research centres for designing curricula, defining occupational profiles, describing a job offer or an occupational profile (i.e. publications, lectures, CVs);
- [EO4GEO Training Material](#): a training catalogue containing resources (e.g. lectures, webinars, videos, tutorials and courses) ranging from base modules to framework curricula for full programmes;
- A [catalogue](#) of traineeship and on-the-job training offers to foster mobility;
- [Sector Skills Strategy](#): a document defining the strategic and operational objectives to promote skills development in the Earth Observation and Geo-Information (EO/GI) sector and the long-term action plan to address skills needs.

The full list of deliverables is available on the EO4GEO [website](#).

### Success factors

A key success factor can be identified in the development of a pivotal tool such as the Body of Knowledge, as it allowed partners to craft a variety of other tools based on its framework. Furthermore, the Blueprint also benefited from constant monitoring of its results (e.g. via surveys) and their application in different national contexts, which fostered synergies between the Blueprint as an EU initiative and the national level.

Lastly, the appointment of partners as Blueprint 'Ambassadors' successfully created a multiplier effect and ensured that the EO4GEO results would be clearly communicated to partners' networks and other stakeholders. Establishing and maintaining a good communication culture among experts involved in the Blueprint was considered key to ensure the sustainability of the project and active involvement of the partners. For example, the EO4GEO's database of experts was updated regularly, and the consortium liaised with the registered experts on a regular basis, reporting new activities and informing them about the project's outcomes.

### Challenges faced

Channelling the results of the Blueprint towards educational providers and/or end users remains a slow and difficult process, often due to bureaucracy and resistance to change. The dissemination of the EO4GEO outputs highlighted differences in the uptake of EO4GEO solutions across regions, stressing

the importance of implementing a more targeted approach and agenda to address specific needs at the local level.

### 3. Key results and impacts

Thanks to the tools, materials and knowledge structures developed under EO4GEO, existing education providers can now improve their curricula efficiently. New education providers (e.g. companies in the sector that want to develop and offer training in the field) also have a methodology and tools at hand when entering the VET market. Student and trainees have more relevant courses to attend and have access to a larger network for international placement while, in turn, potential employers can have access to candidates with higher competences.

At EU level, the important work of the EO4GEO Blueprint on defining training curricula and occupational profiles has been contributing to the further definition and refinement of European Vocational Core Profiles (EVCPs).

### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

Work is underway to ensure that EO4GEO deliverables can be used in cooperation with the existing Pact for Skills large-scale partnership for the Aerospace and Defence sector. While the two initiatives have a different scope – the large-scale partnership covers the ‘upstream’ side of the sector encompassing space infrastructure and manufacturing, and EO4GEO tackled more the ‘downstream’ side focusing on space data and applications, geospatial information services and user uptake – building synergies is key.

Furthermore, to ensure the long-term sustainability of the EO4GEO outcomes, the EO4GEO Alliance<sup>53</sup> was formed. This is a network of stakeholders and experts from academia, private and public sectors, aiming to ensure strategic cooperation on skills development. The network, governed by a specific agreement among members and having GISIG as operational body, promotes and disseminates the Blueprint results after its finalisation. Lastly, the EO4GEO consortium developed a long-term action plan,<sup>54</sup> outlining how the EO4GEO Alliance operates and will be sustained in the upcoming years. Possible revenue streams are identified, including applying to EU/national (co)funded projects, setting up a membership fee, developing paid services or calling on investors/sponsors.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Milva Carbonaro, Director, GISIG Association – [m.carbonaro@gisig.it](mailto:m.carbonaro@gisig.it)
- Check out the [website](#) of the EO4GEO Blueprint.

<sup>53</sup> <http://www.eo4geo.eu/alliance/>

<sup>54</sup> [http://www.eo4geo.eu/download/ea4geo\\_d6-5-long-term-action-plan\\_v2-0/?wpdmdl=9621](http://www.eo4geo.eu/download/ea4geo_d6-5-long-term-action-plan_v2-0/?wpdmdl=9621)

# European Steel Skills Agenda and Alliance – ESSA

## 1. Overview of the Blueprint

### *Main aims and objectives*

[European Steel Skills Agenda and Strategy – ESSA](#) aims to close skills gaps and address skills shortages, recruitment difficulties and talent management issues in the steel industry. In addition to climate change-induced demands for energy efficiency, the sector is impacted by rapid technological developments. In particular, the growing digitalisation of production processes means new skills are needed. ESSA works to address these challenges and ensure that the current and future workforce adapts to these changes by gaining relevant skills and shifting towards new working practices.

ESSA is supported by a budget of EUR 3.99 million. The work of the Blueprint started in 2019 and will continue until 2023.

## 2. Implementing the Blueprint

### *Governance structure*

The ESSA consortium is led by the German Technical University of Dortmund<sup>55</sup> and comprises a total of 27 partner organisations from ten countries.<sup>56</sup> The Blueprint is governed by existing EU and national steel structures, namely:

- the European Steel Technology and Skills Foresight Observatory as the main European coordination unit, conducting a regular European Steel Technology and Skills Foresight Panel (ESSA ETP);
- the online training ecosystem: [steelHub](#);
- the European Community of Practice of Steel Regions, connecting and supporting different National-Regional Steel Training Ecosystems in the main European steel regions to exchange, initiate, develop and implement good practice for skills and training.<sup>57</sup>

In addition, 20 associated partners will complete this consortium, providing their technological and skills expertise.

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<sup>55</sup> <https://www.tu-dortmund.de/>

<sup>56</sup> A full list of partners is available in Table 1 in the Annex.

<sup>57</sup> See Table 2 in the Annex for a description of each type of organisation's roles.

### *Key deliverables*

The ESSA Blueprint produced the following key deliverables:

- [Flyers](#) in three languages;
- A [report](#) analysing cross-European VET frameworks and standards for sector skills recognition;
- A [database](#) of professional profiles as well as a guiding [video](#);
- A [Sector Skills Matrix](#), to identify steel-sector relevant occupational qualification programmes in five European countries with a significant steel industry;
- A [report](#) on the piloting and sustainable implementation of the Blueprint framework/strategy, tools and measures that includes a prototype of the Blueprint New Skills Agenda for Steel and outlines a coherent strategy with ESSA Foresight Observatory, the Regional Training Ecosystem and the online training ecosystem for which new stakeholders must be engaged in the project;
- Several [newsletters](#);
- The organisation of an [ESSA Mid-Term Conference](#) in May 2021 and ESSA's participation in over 70 recruitment/dissemination events all over Europe.

The full list of deliverables is available of the ESSA [website](#).

### *Success factors*

Keeping national and regional specifications and needs at the forefront when establishing a European framework has contributed to the Blueprint's successful implementation. Besides the work being carried out at the EU level by the Blueprint, there are nine national/regional roll outs running their own training systems according to specific national/regional demands and solutions (Belgium, Czech Republic, Finland, Germany, Italy, Poland, Romania, Spain and UK).

Being open to new partners, activities, feedback and being flexible enough to change planned approaches when the practical application shows their limitations, proved to be important factors for the successful implementation of the Blueprint. Lastly, the diversity of partners' backgrounds has also had a positive impact as each one of them has brought in their specific competences and activities.

Lastly, ensuring a well-thought governance structure is beneficial to both the project's implementation and sustainability after the end of the funding period. Having an EU-level governance board alongside local stakeholders responsible for rolling out is helpful to ensure that national/regional specificities are taken into account.

### *Challenges faced*

External factors such as the COVID-19 pandemic and the energy crisis have resulted in new challenges for some of the consortium partners, affecting their participation and commitment.



### 3. Key results and impacts

Remarkable cooperation between companies, training providers, research institutes, steel associations and social partners has been fostered through the ESSA Blueprint.

Furthermore, several of the Blueprint's outputs have had significant impact or have the potential to support skills development in the steel sector in the years to come. For example, the online platform 'steelHub'<sup>58</sup> has been used extensively by companies, training providers and individual learners. Thanks to this platform, the European steel industry has now a clear and integrated governance structure, which ensures the ongoing adjustment of sectoral skills and strategies.

Steel companies' current and future skills requirements were identified and published in a report offering concrete examples to demonstrate how the steel company departments (particularly human resources departments), curriculum developers, qualification providers and other stakeholders can use the generated profiles for job profile definitions during the assessment, career development and curriculum design. This will support organisations with the digital transformation adaptation. Lastly, common database of professional profiles related to the steel sector and the Sector Skills Matrix can support the systematic identification of steel-sector relevant occupational profiles and qualification programmes.

### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

More than 20 ESSA partners have already joined the Pact for Skills. Together with the SPIRE-SAIS Blueprint for Industrial Symbiosis of a Sustainable Process Industry, ESSA is currently establishing a large-scale partnership for the Energy Intensive Industries ecosystem, and other energy intensive sectors are expected to join the partnership.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Antonius Schöder, Social Research Centre Dortmund (sfs), TU Dortmund University – at [antonius.schroeder@tu-dortmund.de](mailto:antonius.schroeder@tu-dortmund.de)
- Check out the [website](#) of the ESSA Blueprint.

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<sup>58</sup> <https://steeluniversity.org/about-us/>

# European Software Skills Alliance – ESSA

## 1. Overview of the Blueprint

### Main aims and objectives

[The European Software Skills Alliance – ESSA](#) aims to develop a skills strategy for the software services industry in Europe. ESSA's goal is to boost growth and human capital in the sector by providing solutions to skill, upskill and reskill individuals into high-demand roles across Europe. ESSA is supported by a budget of EUR 3.8 million. The work of the Blueprint started in 2020 and will continue until 2024.

## 2. Implementing the Blueprint

### Governance structure

The ESSA consortium is led by DIGITALEUROPE and comprises of a total of 21 full partners from 12 countries.<sup>59</sup> The consortium is complemented by 13 associated partners. Each of the associated partners is participating in different work strands of the project, including in the soft piloting of short curricula.

The ESSA Alliance's 21 full partners are at the heart of the Blueprint's activity. They are all committed and closely collaborating to implement the ESSA work programme across all project stages and to ensure that project aims and outputs are delivered to the best quality for the EU Software Services Community. The Project Steering Committee composed of all ESSA Work Package leaders meets on a regular basis to take relevant decisions together.

Associated partners are key drivers of the Alliance's growth. In the second year of the project, an onboarding process was designed and successfully implemented via the ESSA website. Since then, the partnership has welcomed eight new associated partners from five countries. The network of associated partners will be extended during 2023 and 2024 as part of the ESSA Alliance's sustainability plans.

### Key deliverables

The ESSA Blueprint produced the following key deliverables:

- A [draft report](#) analysing the most needed software roles and skills in Europe;

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<sup>59</sup> The full list of partners is provided in the Annex.

- A [draft report](#) laying out a software skills strategy for Europe, structured around six strategic objectives;
- A [draft typology](#) of nine educational profiles for software roles translating the employers' skills need into educational terms;
- A [draft report](#) explaining how to design software professionals' curricula;
- A [booklet of case studies](#) presenting 12 ideas to tackle the shortage of software professionals in Europe;
- An online [ESSA Software Skills Community](#).

The full list of deliverables is available on the ESSA [website](#).

### Success factors

The presence of an experienced and dedicated consortium of 21 partners with common views to the challenges of the sector is the main driving force of the project. Moreover, the organisation of monthly online meetings with all partners has contributed to the Blueprint's success as it allowed partners to get involved in daily management of and updates on the Blueprint.

Flexible project management to allow changes in the initial approach is also considered a key success factor. Similarly, the possibility to amend the Grant Agreement to adjust the work programme to the current situation on the ground has contributed to the Blueprint's success, as it has allowed the partnership to revise the different tasks and outputs to ensure a more efficient delivery and better impact of its activities.

### Challenges faced

While the variety of partners is an added value, it also presented challenges in terms of relaying ESSA's strategic vision to all consortium members, as some had differing views or perceptions about the Blueprint project.

Furthermore, the COVID-19 pandemic resulted in additional challenges, particularly as face-to-face meetings could not be held. The partnership, however, has adapted to this new challenging environment by organising monthly online meetings during the first year of the project, paired with face-to-face meetings every six months.

## **3. Key results and impacts**

As ESSA is approaching its third implementation year, some of its outputs have already had significant impact on the industry. The skills needs analysis and software skills strategy have been widely disseminated and taken up by experts and stakeholders from the industry, as well as by education and training providers. Thanks to these deliverables, the Blueprint effectively raised awareness about the need for cross-sectoral and public-private cooperation for skills development. This impact is evidenced

by the high level of participation to the Software Skills Strategy Launch event,<sup>60</sup> which gathered 125 participants from the education, industry and policy sectors. The launch event was mentioned 12 times in relevant news outlets.

The interest in the project from external organisations is a good indicator of success for what concerns promoting ESSA's mission and increasing stakeholder engagement. Since August 2022, the project has welcomed six new associated partners who actively contribute to the project's work strands. Some of these organisations have expressed interest in participating to the ESSA VET curricula and programmes pilots in 2023–2024. ESSA's ambition is to consolidate the partnership with 25 new associated partners in total, covering all Erasmus+ programme countries.

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

ESSA's coordinating organisation DIGITALEUROPE is a member of the Pact for Skills. Their activities within ESSA are fully aligned with the work they have committed to carry out under the large-scale partnership for the digital ecosystem. ESSA is preparing a set of commitments to be submitted for the Pact of Skills during first quarter of 2023.

The consortium has just finalised an internal Sustainability and Exploitation Plan outlining measures to ensure the sustainability of ESSA's outputs. The Blueprint's longer-term strategy is to expand the Alliance, update and upscale VET curricula and training programmes initiated by the project team, ensure these programmes are widely adopted across the EU, keep promoting software as a career path, and identify and exploit EU funding opportunities to ensure the project's financial viability.

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – José Martínez-Usero, Senior Project Manager, DIGITALEUROPE – at [jose.martinez-usero@digitaleurope.org](mailto:jose.martinez-usero@digitaleurope.org)
- Check out the [website](#) of the ESSA Blueprint.

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<sup>60</sup> <https://www.softwareskills.eu/launch-of-a-software-skills-strategy-to-bridge-the-software-skills-gap/>

# Addressing the current and future skill needs for sustainability, digitalisation and the bio-economy in agriculture: European skills agenda and Strategy – FIELDS

## 1. Overview of the Blueprint

### *Main aims and objectives*

[Addressing the current and Future skill needs for sustainability, digitalization and the bio-Economy in agriculture: European skills agenda and Strategy – FIELDS](#) aims to modernise the agriculture, agri-food and forestry sector and help render the global food supply chain consistent with the United Nations' Sustainable Development Goals.<sup>61</sup> FIELDS seeks to update training curricula and improve human resources to yield a competitive and sustainable bio-economy.

FIELDS is supported by an EU grant of EUR 3.9 million. The work of the Blueprint started in 2020 and will continue until the end of 2023.

## 2. Implementing the Blueprint

### *Governance structure*

The FIELDS consortium is led by the University of Turin (UNITO) and co-coordinated by Confagricoltura. It is comprised of a total of 31 partner organisations and one affiliated partner from 12 different countries.<sup>62</sup> A High Steering Committee, composed of Work Package leaders, acts as a quality committee. Bi-weekly meetings are organised to discuss current activities with involved partners. A High Advisory Board gathering external organisations also contributes to the validation of the Blueprint.

### *Key deliverables*

The FIELDS Blueprint produced the following key deliverables.

- [Databases](#) providing information on existing curricula/courses, European projects, best practices, regulatory frameworks and funding opportunities. The [national and EU regulatory frameworks](#) and [funding opportunities](#) documents laid the basis for their respective databases. The databases are freely available, representing an up-to-date source of information for those interested in developing upskilling and reskilling activities.

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<sup>61</sup> <https://sdgs.un.org/goals>

<sup>62</sup> The full list of partners is provided in the Annex.

- A series of key documents including a [stakeholder strategic plan and analysis report](#); a [trend and scenario analysis](#); and a [methodology definition](#) document presenting the pedagogical approach are to be used to develop training programmes to upskill and reskill farmers in technological and soft skills. A [profiles prioritisation](#) document that classifies all training needs identified during the trend and scenario analysis will also be used.
- Two issues of a FIELDS newsletter were disseminated and translated in nine consortium languages.<sup>63</sup>
- The consortium organised five meetings and participated in various [events](#) between 2020 and 2021 at national, EU and international level.

The full list of deliverables is available on the FIELDS [website](#).

### *Success factors*

FIELDS used innovative research methods such as focus groups and scenario analyses to identify skills needs in the agri-food sector by reaching out to different target groups (i.e. both people in initial training and agri-food workers, consultants, stakeholders). This helped identifying shared solutions to common issues and has maximised the Blueprint's impact by fostering open communication. Furthermore, frequent online meetings have been helpful to ensure partners remain focused on the implementation of their respective Blueprint activities. Lastly, partners have translated FIELDS materials into 12 consortium country languages, maximising dissemination by ensuring that Blueprint's activities reach the largest number of people.

### *Challenges faced*

The COVID-19 pandemic posed several barriers, particularly in terms of coordination and cooperation, as face-to face meetings could not take place for more than a year. This posed risks to the implementation of activities and progress achieved. However, FIELDS mitigated the potentially negative impacts of the pandemic by organising online meetings every two weeks, which ensured that partners remained committed.

## **3. Key results and impacts**

Stakeholders in the industries covered by FIELDS have gained access to state-of-the-art knowledge about present and future skill needs, existing EU projects and funding opportunities, best practices and regulatory frameworks. Moreover, thanks to FIELDS' research on current and future skills needs, the Blueprint was also involved in the update of the ESCO classification system.<sup>64</sup>

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<sup>63</sup> Newsletter 1: <https://drive.google.com/file/d/1C7EuFCRBIURtfPpazVyqXDhWJUY18fb/view>, Newsletter 2: [https://www.erasmusfields.eu/management/sites/default/files/documents/others/final/Newsletter\\_FIELDS\\_2.pdf](https://www.erasmusfields.eu/management/sites/default/files/documents/others/final/Newsletter_FIELDS_2.pdf)

<sup>64</sup> <https://esco.ec.europa.eu/en>

One of the key results is the European Agri-food and Forestry Skills Strategy, which is currently being developed and is due to be finalised by the end of the project. The Strategy covers the following key areas: harmonisation of VET systems; monitoring of the skills in the agri-food and forestry ecosystem; key performance indicators; partnership and governance; learning content and structure; and training modules. The Strategy is expected to improve risk management, address the loss of practical skills, improve understanding of new technologies, develop business and leadership skills and bring about a more coordinated approach to skills development.<sup>65</sup>

#### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

In November 2021, the Agri-food Pact for Skills was launched by COPA-COGECA and FoodDrinkEurope. To date, nine FIELDS partners have joined the Agri-food Pact for Skills, and in May 2022, the FIELDS consortium held a plenary meeting to further promote the Agri-food Pact for Skills to its partners. By the end of the FIELDS Blueprint's implementation, it is expected that all partners will become members of the Pact for Skills, ensuring that cooperation between VET providers, universities, food industry associations, agriculture associations and umbrella organisations at EU level continues beyond the life of the Blueprint.

Lastly, FIELDS' long-term action plan, to be published in 2023, will aim to ensure the Blueprint's sustainability. It will present how to foster future/sustained use of the upcoming Skills Strategy and training materials as well as encourage national roadmaps for implementation and curricula uptake by external VET providers.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinators – Remigio Berruto and Patrizia Busato, University of Turin and Daniele Rossi, COPA-COGECA – at [Remigio.berruto@unito.it](mailto:Remigio.berruto@unito.it), [patrizia.busato@unito.it](mailto:patrizia.busato@unito.it), and [d.rossi@confagricoltura.it](mailto:d.rossi@confagricoltura.it)
- Check out the [website](#) of the FIELDS Blueprint.

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<sup>65</sup> <https://www.erasmus-fields.eu/home-2/>

# Maritime Alliance for fostering the European Blue Economy through a Marine Technology Skilling Strategy – MATES

## 1. Overview of the Blueprint

### Main aims and objectives

The Maritime Alliance for fostering the European Blue Economy through a Marine Technology Skilling Strategy – MATES aimed to develop a skills strategy for the maritime technologies sector, particularly for shipbuilding and offshore renewable energy generation. It also aimed to better align training/educational opportunities with labour market needs in all European sea basins, with a view to make maritime career in this sector more attractive, highlighting the prospect of concrete, fulfilling job opportunities.

MATES was supported by a total budget of EUR 4.9 million (75 % EU grant + 25 % own resources). The work of the Blueprint started in 2018 and ended in 2022.

## 2. Implementing the Blueprint

### Governance structure

The MATES consortium was led by the Spanish Centro Tecnológico del Mar<sup>66</sup> (Fundación CETMAR) and comprised of 16 partners from eight countries.<sup>67</sup> The implementation of this Blueprint project relied on the work of a Steering Board, composed of a representative of each partner. The Board was responsible for the overall governance, discussing and deciding strategic orientation and adopting the main decisions. The Project Secretariat was responsible for day-to-day management related to funding, legal affairs and the overall administration of the project. Partners were also involved through financial or administrative representatives in this secretariat. Furthermore, the Management Committee was responsible for the overall technical performance and for the internal risk and quality control management of the MATES Blueprint. Lastly, eight Thematic Groups supported the work of the Blueprint through the work of experts from the partnership and of external stakeholders.

### Key deliverables

The MATES Blueprint produced the following key deliverables.

- A European [network of experts](#) in the maritime technologies sector, which gathered over 200 stakeholders from the industry, academia and research. This network of experts

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<sup>66</sup> <https://cetmar.org/>

<sup>67</sup> The full list of partners is provided in the Annex.



provided regular feedback and advice during the development of Blueprint documents and reports.

- A detailed [skills analysis](#) with more than 900 training offers mapped, including an analysis of existing gaps and future trends and their impact on skills needs. This analysis formed the basis for other work streams under the project.
- A [Maritime Technology Skills Strategy](#) to address the main drivers of change in the maritime industry.
- 11 [Pilot Experiences](#) – a series of activities aligning the Blueprint priorities with identified training needs and tested new educational resources and methodologies reaching 1 405 participants across 24 countries (students, teachers, trainers, skilled workers and those who have recently joined the workforce). All MATES educational resources developed and tested through the Pilot Experiences are available on the [Marine Training Platform](#).
- Populating the [ESCO](#) database – some 14 new skills and five new occupations in the sectors concerned were identified and added into the ESCO database. In addition, those 46 occupational profiles in the shipbuilding and offshore renewable energy production industry considered as the most affected by emerging trends were matched with 100 new, future-looking skills considered to be essential with a particular focus on green and digital skills.

The full list of deliverables is available on the MATES [website](#).

### Success factors

The creation of a project handbook, consisting of common protocols and templates provided a solid, unified and coherent structure for all activities and tasks implemented within the scope of the Blueprint. These templates were easily accessible, user-friendly and proved to be an invaluable tool for all partners throughout the entire lifetime of the project. This ensured compliance with set quality standards and contributed to the achievements of the Blueprint. Moreover, the strong sense of teamwork developed by partners was also a key success factor of the initiative.

### Challenges faced

The Blueprint involved a high number of partners from a diverse range of organisations and sectors. Although a strength of the Blueprint, this diversity required efforts to develop a common understanding of and a shared framework for quality standards. Still on cooperation, collaboration between the industry and the education/training community also required significant effort due to their different natures and working styles.

Lastly, as the MATES project represented one of the first Blueprints, it could not rely on the experience and lessons learned from well-established practices.

### 3. Key results and impacts

Training courses, curricula and programmes developed by the Blueprint have been applied and used in many countries across Europe. As a result of a fruitful collaboration between education institutions and stakeholders, the Sustainable Ship and Shipping 4.0 Master's Degree (SEAS 4.0)<sup>68</sup> was developed and launched jointly by the University of Napoli Federico II, the University of A. Coruna and the University of Zagreb. Moreover, the Escola do Mar das Azores plans to run the Ocean Pro.Tec Lab course<sup>69</sup> (one of the Pilot Experiences) again. In Greece, the development of the 'Training Seminar on Additive Manufacturing and Risk Management in the Shipbuilding and Ship Repair Sectors' enabled the testing and implementation of an effective method for addressing the identified current and future skills gaps and shortages in this sector.

### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

MATES coordinated the creation of a large-scale skills partnership for offshore renewable energy under the Pact for Skills. MATES partners have agreed to carry out future actions showcasing the sustainability of the Maritime Technologies Skills Strategy and ensuring the use and exploitation of the relevant project outcomes for the next five years after the end of the project.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinators – Lucía Fraga Lago and Rosa Fernandez Otero, Centro Tecnológico del Mar – Fundación CETMAR – at [mates@cetamar.org](mailto:mates@cetamar.org)
- Check out the [website](#) of the MATES Blueprint.

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<sup>68</sup> <http://www.master-seas40.unina.it/about-seas-4-0/>

<sup>69</sup> <https://www.projectmates.eu/pilotexperience/ocean-pro-tec-lab/>

# MicroElectronics Training, Industry and Skills – METIS

## 1. Overview of the Blueprint

### *Main aims and objectives*

[MicroElectronics Training, Industry and Skills – METIS](#) aims to address the need for advanced skills in the microelectronics sector. It brings together key participants in the EU microelectronics ecosystem to develop a Sector Skills Strategy as well as a TVET/educational offer.

METIS is supported by a budget of EUR 3.98 million. The work of the Blueprint started in 2019 and will continue until 2023.

## 2. Implementing the Blueprint

### *Governance structure*

The METIS consortium is coordinated by SEMI Europe<sup>70</sup> located in Germany and is composed of a total of 18 partners from 12 countries.<sup>71</sup> METIS' eight Work Packages are intertwined, each leading to the implementation of activities in a structured and controlled fashion.

### *Key deliverables*

The METIS Blueprint produced the following key deliverables:

- A publication on [Skills and Occupational Profiles for Microelectronics](#);
- A METIS [Skills Strategy](#);
- A jointly developed [industry/university METIS training](#) in microelectronics design and manufacturing, green skills and soft skills. It is structured around 43 modules and the draft of the course 'catalogue'.

The full list of deliverables is available on the METIS [website](#).

### *Success factors*

A crucial success factor for METIS is the Blueprint's relevance for the European Chips Act,<sup>72</sup> whose objective is to overcome the skills and talent shortages in the semiconductor industry. Therefore, the

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<sup>70</sup> <https://www.semi.org/eu>

<sup>71</sup> The full list of members is provided in the Annex.

<sup>72</sup> [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act_en)

results of METIS – such as the Skill Strategy and the development of its long-term action plan – are highly relevant to the implementation of the Act. Another success factor has been the strong cooperation between METIS and other Blueprints to overcome common challenges and exploring the potential for synergies.

### *Challenges faced*

Building and hosting adapted training courses was a challenge for the Blueprint due to the lack of a centrally managed e-learning platform and the lack of experience of the participants in sharing courses with the wider public. However, METIS was able to overcome this limitation by collaborating with the DRIVES Blueprint, which gave METIS access to its own online platform for the dissemination of the METIS' course catalogue. Both consortia now meet regularly to discuss further potential collaboration.

## 3. Key results and impacts

The Microelectronics Sector Skills Strategy, currently being developed by METIS, will help match skills demand and supply thanks to a methodology to assess, anticipate and monitor the evolution of relevant skills, competences and occupations in the sector. The project will also define and refine occupational profiles based on existing competence frameworks and the ESCO classification system.<sup>73</sup>

METIS will pave the way for the development of microelectronics-specific competence framework(s) and introduce innovative learning-outcome-based VET curricula, jointly developed by industry and education providers. The Blueprint will thus contribute to enhancing the visibility of the microelectronics sector as a professional career path. Eventually, METIS will also tackle the gender dimension of employability in the sector.

## 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

METIS is built around three core elements: the development of intelligence and knowledge about skills needs; the design and delivery of innovative training; and the development of a long-term action plan, which is currently being drafted and could be implemented under the Pact for Skills. To this end, METIS has laid the groundwork for further sectoral collaboration under the Pact for Skills for Microelectronics.<sup>74</sup> SEMI Europe – the METIS Coordinator – is running the secretariat of the large-scale skills partnership and developed a vision paper for a European Chips Skills Academy.<sup>75</sup>

### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinators – Christopher Frieling, Director, Advocacy and Public Policy and Maria Afsar, Manager, Government Projects at SEMI Europe – at [cfrieling@semi.org](mailto:cfrieling@semi.org) and [mafsar@semi.org](mailto:mafsar@semi.org) or [here](#).
- Check out the [website](#) of the METIS Blueprint.

<sup>73</sup> <https://esco.ec.europa.eu/en/classification>

<sup>74</sup> <https://www.semi.org/eu/pact-for-skills>

<sup>75</sup> <https://www.semi.org/sites/semi.org/files/2022-09/European%20Chips%20Skills%202030%20Academy%2021-06-2022.pdf>

# Next Tourism Generation Alliance – NTG

## 1. Overview of the Blueprint

### Main aims and objectives

[Next Tourism Generation Alliance – NTG](#) aimed to respond to the fast-changing and increasing skills gaps in the tourism sector and challenges related to the green and digital transitions. NTG aspired to develop and implement a structural mechanism to bridge current and future skills shortages by providing tools to facilitate transformational collaboration between the industry, education systems and public authorities.

NTG was supported by an EU grant of EUR 4 million and was implemented between 2018 and 2021.

## 2. Implementing the Blueprint

### Governance structure

The NTG consortium was led by Federturismo Confindustria (Italian Tourism Trade Association)<sup>76</sup> alongside 14 partners from eight countries.<sup>77</sup> From the outset, the Blueprint aimed to involve the broadest range of sectoral stakeholders. To this end, National/Regional Skills Partnerships were established in each of the partner countries to bring together local stakeholders. The Blueprint's Collaborative Governance Framework<sup>78</sup> outlines NTG's governance structure and supports the activities of the National/Regional Skills Partnerships.

### Key deliverables

The NTG Blueprint produced the following key deliverables:

- A research-based [Skills Assessment Methodology \(SAM\)](#) to support the tourism industry, education and training providers as well as government bodies to systematically identify, assess and monitor digital, green and social skills needs;
- An [Online Skills Matrix](#) to provide a competency and career skills database listing all skills and competencies based on the requirements in tourism related industries across Europe;
- A [Tourism Sector Skills Toolkit](#) to provide a wide set of resources (e.g. mapping documents, sample session plans, examples for developing curriculum, a human resource framework, occupational profiles and guidance documents, case studies and examples of best practice);

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<sup>76</sup> <https://www.federturismo.it/it/>

<sup>77</sup> A full list of partners is available in the Annex.

<sup>78</sup> [https://nexttourismgeneration.eu/wp-content/uploads/2022/07/Tourism-Blueprint-Collaborative-Framework\\_NTG.pdf](https://nexttourismgeneration.eu/wp-content/uploads/2022/07/Tourism-Blueprint-Collaborative-Framework_NTG.pdf)

- A [Quality Skills Standards Framework](#) to illustrate how new skills are integrated into training curricula to help sectoral stakeholders identify the key factors that influence skills content and delivery;
- A user-friendly digital [Tourism Skills Lab](#) to offer individuals and organisations a series of skills instruments and tools to address skills gaps, future skills needs (skills assessment) and job reviews;
- A [Collaborative Framework](#) for sectoral skills development in tourism, which was developed based on an extensive review of best practices from across the world, and adaptable to different national and regional contexts to support the work of National/Regional Skills Partnerships;
- A [Blueprint Strategy and Action Plan](#) to provide a roadmap for the scalability and transferability of the actions implemented (i.e. the Blueprint's outputs). The Blueprint incorporates all NTG tools and indicates how they form a cohesive framework for identifying and addressing tourism skills needs at both operational and strategic levels.

The full list of deliverables is available on the NTG [website](#).

### *Success factors*

The NTG Blueprint strove to establish a common language and approach to strategically assess the skills gap, fostering collaboration between education, the industry, social partners and government. This objective was supported through multifaceted tools that provided an overall coherence to the Blueprint's actions. Aside from the design of targeted tools, the adoption of a bottom-up approach, organising national and regional dissemination events such as public conferences, webinars and workshops and setting up National/Regional Skills Partnerships was a key factor to the Blueprint's success.

Lastly, ensuring close collaboration with the European Commission and building synergies with the Pact for Skills contributed to the project's sustainability, as it resulted in the continuation of the work of the Blueprint through the follow-up Pantour project (Pact for Next Tourism Generation Skills).

### *Challenges faced*

The joint action of all relevant sector stakeholders is critical to meet Europe's skills needs and ensure skills can play their pivotal role in supporting the recovery from the pandemic crisis and mastering the digital and green transitions. Throughout its four-and-a-half-year duration, NTG has sought to influence the tourism sector by transferring its methodological approach to the various stakeholders and by raising awareness about the need to pave the way for innovation and transformational change through the development of digital, social and green skills. However, while other key industrial ecosystems are characterised by the presence of large companies that can provide significant references for skills development policies, tourism is a sector dominated by the presence of small and micro enterprises. This demographic was therefore a challenge, as it required a specific approach to effectively reach out to and engage with stakeholders in such a large and fragmented sector. Participation in the Pact for Skills helped by allowing a larger consultation with representatives not only of tourism, businesses, and education and training institutions, but also with public bodies.

### 3. Key results and impacts

The NTG Blueprint set a precedent by establishing EU tourism education quality standards for digital, green and social skills sets and encouraging collaboration between education providers and the industry at an unprecedented scale, and at different levels. This was done by developing best practices and actively raising awareness on the benefits of linking business with education organisations as well as reaching out to the widest range of stakeholders through a bottom-up approach and involving key actors at the local and regional level.

Moreover, several of the tools developed by NTG had a concrete impact. For example, educational partners revised the content of their tourism learning offer based on the NTG Tourism Sector Skills Toolkit. The NTG Skills Matrix, by providing a detailed explanation for each of the eight standard EQF levels,<sup>79</sup> improved the delivery of skills-based training and education.

### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

The NTG Blueprint team has been instrumental in launching and implementing the Pact for Skills in the tourism sector – the Coordinator of the large-scale partnership in tourism under the Pact for Skills was one of the Work Package leaders in the NTG Blueprint. By sharing its developed stakeholder engagement tools with the European Commission, the Blueprint provided additional material and inspiration for the large-scale partnership's launch, and for defining its key performance indicators.

Finally, the National/Regional Skills Partnerships established by NTG in each of the consortium partner countries continue to operate despite the ending of the Blueprint project, further demonstrating the sustainability of its results and their ability to produce tangible benefits in the medium to long term.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinators – Lobke Elbers and Rino Vitelli, Federturismo Confindustria – at [communication@nexttourismgeneration.eu](mailto:communication@nexttourismgeneration.eu)
- Check out the [website](#) of the NTG Blueprint.

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<sup>79</sup> <https://europa.eu/europass/en/description-eight-efl-levels>

# The Cybersecurity Skills Alliance – New Vision for Europe (REWIRE)

## 1. Overview of the Blueprint

### Main aims and objectives

[The Cybersecurity Skills Alliance – New Vision for Europe \(REWIRE\)](#) aims to contribute to the development of a concrete European Cybersecurity Skills Strategy. REWIRE is supported by a budget of EUR 3.98 million. The work of the Blueprint started in 2020 and will continue until 2024.

## 2. Implementing the Blueprint

### Governance structure

The REWIRE consortium is coordinated by the Mykolas Romeris University<sup>80</sup> in Lithuania and is composed of 25 partners from 13 countries.<sup>81</sup> REWIRE is organised around seven Work Packages and operates with the support of an Expert Advisory Board, composed of experts in the cybersecurity and VET sectors. This Board provides advice on key project outcomes.

### Key deliverables

The REWIRE Blueprint produced the following key deliverables:

- The [European Cybersecurity Blueprint](#) aiming to stimulate cybersecurity education in Europe;
- A [Cybersecurity Skills Needs Analysis](#) assessing the needs for cybersecurity skills, and providing an overview of the state of play in the sector;
- A [Cybersecurity Skills Framework](#) analysing competences, qualifications and occupations in existing cybersecurity skills frameworks, as well as revising and establishing new occupational profiles and corresponding skills needs;
- A [mapping](#) of existing training courses, university curricula and certification schemes on cybersecurity;
- REWIRE '[fiches](#)' outlining examples of good practices and '[recommendations](#)' analysing policy and practice implications of project outputs.

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<sup>80</sup> <https://www.mruni.eu/en/>

<sup>81</sup> The full list of members is provided in the Annex.



Upcoming deliverables (from 2023 onwards) will include the provision of four Vocational Open Online Courses (VOOCs) based on the REWIRE Curricula and Training Framework.

The full list of deliverables is available on the REWIRE [website](#).

### Success factors

REWIRE's success comes from its extensive and diverse network of partners, which encompasses VET centres, academia, industry and European and national-level sectoral representatives. This network is helpful to reach out to relevant stakeholders, to link up with cybersecurity specialists and access deliverables produced under other cybersecurity-related EU projects.

### Challenges faced

The biggest challenge REWIRE had to face is the change of partners or staff within partner organisations, which sometimes disrupts collaboration within the consortium.

## **3. Key results and impacts**

As the REWIRE Blueprint is still being implemented, results and impacts will have to be assessed at a later stage. However, the Blueprint has three main objectives: innovation (e.g. design and delivery of the European Cybersecurity Blueprint and the delivery of training programmes in highly innovative fields); impact (e.g. promotion of the application of European Quality Assurance in Vocational Education and Training (EQAVET) and EQF/ECVET frameworks to ensure both the quality and better transferability of the project's results); and sustainability (e.g. creating a lasting partnership among all types of stakeholders, provide career guidance and facilitate the transnational mobility of stakeholders).

## **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

As the project is still ongoing, synergies with the Pact for Skills, as well as steps needed to ensure the sustainability and further dissemination of project results beyond the duration of the Blueprint, are still being explored. During the last year of the project (2024), a detailed action 'Plan for the European Cybersecurity Blueprint Sustainability' will be developed to explain how the results of the Blueprint will be disseminated after the closing of the project and how sustainability will be ensured.

### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinator – Andrius Bambalas – at [andrius@mruni.eu](mailto:andrius@mruni.eu) or at [info@rewireproject.eu](mailto:info@rewireproject.eu)
- Check out the [website](#) of the REWIRE Blueprint.

# Skills for Smart Textile, Clothing, Leather and Footwear Industries 2030 – SKILLS4SMART TCLF 2030

## 1. Overview of the Blueprint

### *Main aims and objectives*

[Skills for Smart Textile, Clothing, Leather and Footwear Industries 2030 – SKILLS4SMART TCLF 2030](#) aimed to advance the modernisation and competitiveness of the EU Textile, Clothing, Leather and Footwear (TCLF) sectors through developing a sustainable upskilling and reskilling strategy.

SKILLS4SMART TCLF 2030 was supported by a budget of EUR 3.98 million and was implemented between 2018 and 2022.

## 2. Implementing the Blueprint

### *Governance structure*

The SKILLS4SMART TCLF 2030 consortium was led by EURATEX<sup>82</sup> and is composed of 22 partners from nine different countries.<sup>83</sup> A Steering Committee was set up to define the working rules and ensure smooth implementation of the Blueprint activities. Collaboration tools and an e-management platform were also set up with the same objective. The governance structure was strengthened by quality assurance mechanisms, such as a ‘Quality Plan’, and internal and external evaluations of the quality of the results.

### *Key deliverables*

The SKILLS4SMART Blueprint produced the following key deliverables:

- A [Sectoral Skills Strategy for the TCLF](#) sectors, alongside nine national strategies (covering consortium member countries: [BE](#), [BG](#), [ES](#), [FR](#), [EL](#), [IT](#), [PL](#), [PT](#), [RO](#)).
- Development of new curricula or the updating of existing ones for a selection of [8 profiles for the TCLF industries](#), namely: 1) Textile Technologist; 2) Clothing CAD Pattern Maker; 3) Footwear CAD Designer and Pattern Maker; 4) Leather Technologist; 5) Sustainability Technician; 6) (Digital) Supply Chain Analyst; 7) Digital Marketing Professional; 8) Process and Production Timeline Analyst.

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<sup>82</sup> <https://euratex.eu/>

<sup>83</sup> The full list of members is provided in the Annex.

- The set up of European-wide Network of VET providers and a Network of Regional Authorities with strong presence of TCLF – to be further developed under the Pact for Skills initiative.
- The [European Fashion Campus](#) is an online platform aiming to collect all the relevant information on education and training in the TCLF industries in Europe. Numerous trainings devised by the partnership are available on the website after creation of a free account.
- Definition of [VET Quality Label](#) for TCLF curricula.
- Materials that the TCLF community across Europe can use to increase the attractiveness of careers in the TCLF sectors were created (e.g. a [short video documentary](#), a set of tools and guidelines for the organisation of School Orientation Days with students).

The full list of deliverables is available on the SKILLS4SMART TCLF 2030 [website](#).

#### Success factors

As other Blueprints, one of the key success factors for SKILLS4SMART TCLF 2030 was developing an EU-wide strategic partnership in the TCLF sectors to foster collaboration between all relevant stakeholders. The dynamic collaboration between TCLF companies (and their respective representative associations) with VET providers and national and regional authorities was crucial for the successful implementation of the Blueprint's activities.

#### Challenges faced

The COVID-19 pandemic hindered the piloting of the new curricula developed by the Blueprint, as it did not allow for face-to-face or work-based learning approaches and required constant adaptation to rapidly changing national and regional healthcare measures. Engaging students and new VET centres became increasingly difficult, particularly as the latter were already overwhelmed by the emergency of the situation and were thus reluctant to engage in new activities.

### **3. Key results and impacts**

A key result of the Blueprint was updating the training and curricula offer to better match industry needs and enhance the image of careers in the TCLF sectors and attract new workers – particularly young talent. Another important achievement has been the establishment of a dynamic community of private and public actors across Europe with a strong commitment towards supporting skills development and employment opportunities within a common, EU-wide skills strategy.

#### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

Since the adoption of the new EU Skills Agenda in 2020,<sup>84</sup> the SKILLS4SMART TCLF 2030 consortium expressed an interest in engaging with the Pact for Skills, and issued a position paper outlining the key priorities to be addressed under the initiative. The Blueprint Coordinator (EURATEX) and two SKILLS4SMART TCLF 2030 consortium partners (CEC and COTANCE, umbrella associations) now coordinate the Pact for Skills for the TCLF sectors,<sup>85</sup> effectively making SKILLS4SMART TCLF 2030 the precursor of the TCLF Pact for Skills initiative.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Pedro Gonçalves, Policy Officer, EURATEX – at [pedro.goncalves@euratex.eu](mailto:pedro.goncalves@euratex.eu)
- Check out the [website](#) of the SKILLS4SMART TCLF 2030 Blueprint.

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<sup>84</sup> <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9723&furtherNews=yes#navItem-1>

<sup>85</sup> <https://euratex.eu/news/launch-of-the-tclf-pact-for-skills-putting-people-at-the-heart-of-the-industrys-competitiveness/>

# Sector Skills Strategy in Additive Manufacturing – SAM

## 1. Overview of the Blueprint

### *Main aims and objectives*

The [Sector Skills Strategy in Additive Manufacturing – SAM](#) aims to contribute to the smart, sustainable and inclusive growth of the Additive Manufacturing sector. Additive Manufacturing, better known as 3D printing, has the potential to improve the production of components by making efficient use of materials and raising the level of digital literacy among workers.

SAM is supported by an EU grant of EUR 3.97 million. The work of the Blueprint started in 2019 and will continue until 2023.

## 2. Implementing the Blueprint

### *Governance structure*

The SAM consortium is led by the European Federation for Welding, Joining and Cutting (EFW)<sup>86</sup> located in Belgium, and is comprised of a total of 17 partners from nine countries.<sup>87</sup> SAM also engages with several associated partners who participate in a wide range of project activities and support the dissemination of Blueprint outputs.

Three more bodies constitute SAM's governance structure to oversee the Blueprint's implementation. These are the European Management Organisation, the International Additive Manufacturing Qualification Council and the International Additive Manufacturing Industry Council.

### *Key deliverables*

The SAM Blueprint produced the following key deliverables.

- The [European AM Observatory](#) provides real-time mapping and monitoring of the Additive Manufacturing industry's needs, technological trends, skills shortages and mismatches, as well as policies and figures that are relevant for the sector. To set up the Observatory, SAM published a series of key documents including: four [reports](#) addressing the findings on skills needs, mismatches and shortages in the sector; three [reports](#) collecting the feedback of students on the existing training courses; a [report](#) mapping the projects in Additive

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<sup>86</sup> <https://www.efw.be/>

<sup>87</sup> The full list of partners is provided in the Annex.

Manufacturing implemented between 2019–2020; and the Additive Manufacturing [Skills Strategy Roadmap](#), which identifies and responds to key challenges in the sector.

- The [International AM Qualification System](#) (IAMQS) is part of the Observatory and ensures the coherence of qualifications in the Additive Manufacturing sector. IAMQS is being implemented through a network of Additive Manufacturing VET and higher education training centres.
- A [glossary](#), [milestones report](#), [long-term technological and industrial plan](#), [professional profiles and skills roadmap](#) and [visual timeline](#) have been published to help define the European Additive Manufacturing Skills Strategy;
- Kits for forecasting skills needs in the [short](#), [medium](#) and long-term were devised as well as a kit to track students and jobseekers in the Additive Manufacturing sector.
- A [methodological guideline](#) to design and review professional profiles in Additive Manufacturing, a [kit](#) with operational guidelines and tools for implementing the methodology as well as an [operational guideline](#) for delivering Additive Manufacturing training courses were published.
- Webinars and open days, podcasts, quizzes for children and adults, posters, videos and comic series were produced to [raise awareness](#) about the Additive Manufacturing sector.
- A series of activities including: 14 [articles](#); one [press release](#); eight videos; five newsletters; and eight visual communication were disseminated.

The full list of deliverables is available on the SAM [website](#).

### Success factors

The expertise of partners and the fact that they represented both the industry and education fields ensured the effective implementation of activities, especially with regards to the development of a sustainable skills strategy and harmonised qualifications system. Defining a reliable governance structure and implementing well-structured operational procedures for each governing body was also considered important for the sustainability of the Blueprint's core deliverables, and the AM Observatory and IAMQS in particular.

### Challenges faced

The COVID-19 pandemic posed several challenges to the Blueprint, particularly in relation to internal coordination and the delivery of activities. Nonetheless, consortium partners demonstrated a high degree of flexibility and quickly adapted to the new reality by switching to online tools, including webinars (targeting the general public) and podcasts featuring speakers who discussed Additive Manufacturing key topics such as 'Careers in Additive Manufacturing', 'Sectoral Applications' and 'Women in Additive Manufacturing.' These targeted companies, policymakers, higher education and VET students, and industry representatives. Due to the COVID-19 outbreak, the Blueprint was granted an extension, which allowed SAM to implement face-to-face training and awareness-raising activities

once in-person meetings became possible. It also allowed SAM to better plan the sustainability of the Blueprint's outcomes after the end of the funding period (originally foreseen for 2022).

### 3. Key results and impacts

The activities organised under the Additive Manufacturing Observatory have prompted unprecedented, large-scale collaboration among stakeholders from over 115 industrial organisations. More than 800 stakeholders from 29 countries, representing eight industrial sectors participated in the surveys and interviews to identify skills gaps as part of the Observatory's forecast methodology. Moreover, as part of IAMQS, existing training programmes have been revised and new ones have been developed from scratch and piloted, resulting in 25 online courses in which 800 learners took part.

At EU level, the SAM Blueprint was actively involved in the revision of occupational and skills profiles for the Additive Manufacturing sector, as part of the review of the ESCO current classification<sup>88</sup> to improve some of the existing content.

Lastly, the SAM Blueprint has also contributed to increasing the attractiveness of the Additive Manufacturing sector as a career choice for primary, secondary, VET and university students through its awareness-raising campaigns.

### 4. Looking forward: building synergies with the Pact for Skills and sustainability of results

The consortium has drafted an action plan to ensure the Blueprint's sustainability after the end of the project. The Blueprint's sustainability strategy will rely on SAM's core outputs. While IAMQS and the Additive Manufacturing Observatory are expected to be the main legacy of the Blueprint, other key results that will support SAM's long-term impact are the Additive Manufacturing Skills Strategy Roadmap, the forecast methodology and kits produced within this framework, the methodological guideline to design and review professional profiles in Additive Manufacturing, as well as the awareness-raising material.

Beyond the impact of project results, SAM's efforts to engage key stakeholders in the Additive Manufacturing sector such as training providers, industry representatives and technology experts are akin to the stakeholders engagement processes at play when establishing large-scale partnerships under the Pact for Skills.

#### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Adelaide Almeida, Education Project Manager, EWF – at [madealmeida@ewf.be](mailto:madealmeida@ewf.be)
- Check out the [website](#) of the SAM Blueprint.

<sup>88</sup> <https://esco.ec.europa.eu/en>

# Future-proof skills for the maritime transport sector – SKILLSEA

## 1. Overview of the Blueprint

### *Main aims and objectives*

[Future-proof skills for the maritime sector – SKILLSEA](#) aims to make maritime professional education and training future-proof, adaptable and attractive by developing a European skills strategy for the maritime industry. SKILLSEA's ultimate goal is to ensure the industry's sustainability.

SKILLSEA is supported by a budget of EUR 3.99 million. The work of the Blueprint started in 2019 and will continue until June 2023.

## 2. Implementing the Blueprint

### *Governance structure*

The SKILLSEA consortium is led by the Netherlands-based Stichting STC Group (STC-Group)<sup>89</sup> and is comprised of a total of 24 partners from 16 countries.<sup>90</sup> The Blueprint brings together social partners, maritime shipping industry, trade unions, research organisations, maritime academies and universities, education and training providers and public authorities.

A clear governance structure is in place. Project management is assured by a general Project Coordinator and a Technical Project Coordinator (STC-Group) supported by a Project Administration Team responsible for the day-to-day administrative and technical management. Moreover, the Project Board, consisting of the European Community Shipowners' Associations (ECSA)<sup>91</sup>, the European Transport Workers' Federation (ETF)<sup>92</sup> and STC-Group, is responsible for the overall implementation and approval of different deliverables. Lastly, the Advisory Board, made up of representatives of the maritime shipping sector, Member States, Maritime Education and Training and Maritime Clusters, provides expert feedback on the deliverables and results of the Blueprint.

### *Key deliverables*

The SKILLSEA Blueprint produced the following key deliverables:

- Development of a [methodology](#) to identify skills needs in the maritime transport. [Current](#) and [future](#) skills needs were mapped, as well as [gaps](#) and [mismatches](#).

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<sup>89</sup> <https://stc-group.nl/>

<sup>90</sup> The full list of partners is provided in the Annex.

<sup>91</sup> <https://www.ecsa.eu/>

<sup>92</sup> <https://www.etf-europe.org/>



- A skills strategy currently being developed, accompanied by a [Strategy Plan Framework](#) and reports on the [internationalisation](#) and [evaluation](#) of the Maritime Education and Training environment, among others.
- A series of reports and tools, including: the [Strategic Evaluation MET Tool](#) to measure and monitor progress towards future-proof strategic goals; the [Strategy Direction Location \(STRA.D.L\)](#) and [Transcript International Transfer \(Trans.I.T.\)](#) tools to enable decision-makers to make choices against pre-determined criteria and facilitate strategic planning.
- Three Educational Packages – [Green Skills \(1 and 2\) Environmentally friendly and sustainable ship operation](#) and [Digital Skills](#). The SKILLSEA team has also developed a [toolbox](#) to help instructors, teachers and Maritime Education and Training institutions design courses.
- Dissemination activities, including a [factsheet](#), six [newsletters](#), three [press releases](#) and four [presentations](#).

The full list of deliverables is available on the SKILLSEA [website](#).

#### *[Success factors](#)*

Partners' strong commitment has been a key driver of the Blueprint's success. The consortium proved to be resilient and kept working amidst the pandemic, motivated by their unwavering ambition to make the maritime transport sector future-proof. Maintaining regular communication and adopting a clearly defined governance structure with a clear division of tasks and responsibilities also plays a role in SKILLSEA's success.

#### *[Challenges faced](#)*

Since its launch in 2018, the Blueprint faced challenges stemming from global developments, which impacted the maritime transport, such as the COVID-19 pandemic and the war in Ukraine, which forced partners to revise their priorities and adapt to the situation (e.g. by developing and maintaining online education for their students).

Moreover, the consortium's size can at times complicate the collaboration and decision-taking processes. In some cases, the high turnover within partner organisations makes it difficult to sustain a working relationship.

### **3. Key results and impacts**

Blueprint outputs delivered so far have been widely shared within and greatly appreciated by the maritime industry. The Skills needs assessments produced by SKILLSEA have generated great interest among sectoral stakeholders and are supporting discussions on updating curricula and education packages to match current skills needs. This shows the potential of the Blueprint to help to improve the attractiveness of the sector through the implementation of new innovative educational packages in maritime schools. The series of webinars organised as part of the first Educational Package was attended by participants from all over Europe.

The tools developed by SKILLSEA can also help to foster advancements in the sector, as maritime transport professionals have access to tailored support to tackle skills mismatches in the industry.

Lastly, at EU level, SKILLSEA has contributed to the revision of the ESCO<sup>93</sup> occupational and skills profiles for the maritime industry by providing input to improve the existing classification system.

#### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

SKILLSEA has been actively looking to build synergies with the Pact for Skills, as demonstrated by the fact that some consortium partners, including the Blueprint Coordinator STC-Group, are part of the large-scale partnership for shipbuilding and maritime technology,<sup>94</sup> and others might join in the coming months.

For what concerns the sustainability and mainstreaming of project results, SKILLSEA partners have agreed to keep the Blueprint website live even after the end of the project to ensure interested stakeholders can retain access to all Blueprint results. To establish synergies with other initiatives and potentially further disseminate its output, the Blueprint has been collaborating with the Skills Beyond the Seas project,<sup>95</sup> which also focuses on professional mobility in the maritime sector.

#### **Would you like to find out more about this Blueprint?**

- Reach out to the Blueprint Coordinators – Diedrick Jansen, General Project Coordinator and Alco Weeke, Technical Project Coordinator, Department of Innovation & Educational Development, STC-Group – at [skillsea@stc-r.nl](mailto:skillsea@stc-r.nl)
- Check out the [website](#) of the SKILLSEA Blueprint.

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<sup>93</sup> <https://esco.ec.europa.eu/en>

<sup>94</sup> <https://www.seaeurope.eu/pact-for-skills>

<sup>95</sup> <https://skillsbeyondtheseas.eu/>

# Skills Alliance for Industrial Symbiosis – a Cross-Sectoral Blueprint for a Sustainable Process Industry – SPIRE-SAIS

## 1. Overview of the Blueprint

### Main aims and objectives

[Skills Alliance for Industrial Symbiosis – a Cross-sectoral Blueprint for a Sustainable Process Industry – SPIRE-SAIS](#) aims to address possible skills shortages in the Energy Intensive Industries, while providing EU citizens with the necessary skillsets for future job profiles in the sector. The project's goal is to update the curricula, qualifications and knowledge that are required to support essential cross-sectoral collaboration and Industrial Symbiosis activities.

SPIRE-SAIS is supported by a budget of EUR 3.95 million. The work of the Blueprint started in 2020 and will continue until 2023.

## 2. Implementing the Blueprint

The SPIRE-SAIS consortium is led by the German TU Dortmund University<sup>96</sup> and is comprised of 35 partners from 12 countries.<sup>97</sup> SPIRE-SAIS is run by a Project Executive Team consisting of Work Package leaders.

### Key deliverables

The SPIRE-SAIS Blueprint produced the following key deliverables:

- A report on [Industrial Symbiosis and Energy Efficiency in European Process Industry: State of Art and Future Scenario](#) describing the current state of the implementation of the Industrial Symbiosis and Energy Efficiency concepts in the European process industries;
- A report on [\(Company\) Skills Requirements and Foresight](#) providing more insights into industry skills requirements;
- A [Mapping of current VET provision](#);
- A [Training Framework](#) covering training courses, measures, arrangements, tools and activities for integration within VET, company and association training programmes;

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<sup>96</sup> <https://www.tu-dortmund.de/en/>

<sup>97</sup> The full list of partners is provided in the Annex.

- A [Blueprint Prototype](#) analysing the current state of implementation of Industrial Symbiosis and Energy Efficiency concepts in the European process industry and the related skills needs;
- Different factsheets on [technological development](#), [skills requirements](#) and [VET systems in five EU countries](#).

The full list of deliverables is available on the SPIRE-SAIS [website](#).

### *Success factors*

Setting up a sustainable sector skills alliance and agenda is a socially innovative process that required involved organisations to demonstrate flexibility, agility and openness to any new partners, activities and feedback loops.

Furthermore, the Blueprint has developed several performance indicators for each Work Package used to monitor and assess the project performance against targets and objectives, ensuring SPIRE-SAIS' successful implementation.

### *Challenges faced*

As consortium partners have different perspectives and needs (e.g. job profiles may differ depending on whether they are related to SMEs or large companies), a big challenge faced by the Blueprint was to find a common view and framework.

## **3. Key results and impacts**

The Blueprint has developed educational modules and tools which can foster greater awareness of the needs and opportunities of the sector. New skills have been identified, including digital ones for the practical implementation of the Industrial Symbiosis in globally competitive industries. These skills anticipate the industry's new requirements and are based on proactive, practical approaches to respond to the future needs of the Energy Intensive Industries in Europe and beyond. For example, the Blueprint's most successful deliverable was a common job profile selection dedicated to Industrial Symbiosis and Energy Efficiency, accompanied by the corresponding relevant skills. As part of this work, SPIRE-SAIS has also contributed to EU-level initiatives by sharing the results of its research on skills in the sector to support the updating of occupational and skills profiles within the ESCO classification system.<sup>98</sup>

## **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

SPIRE-SAIS has been proactively looking to establish strong synergies with the Pact for Skills to further build on its work and ensure the sustainability and mainstreaming of its results in the long term.

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<sup>98</sup> <https://esco.ec.europa.eu/en>

Currently, more than 20 SPIRE-SAIS consortium partners have become members of the Pact for Skills. Together with the European Steel Skills Alliance (ESSA Blueprint) and with different sector associations (from cement, minerals, steel, aluminium, water, engineering, chemicals), SPIRE-SAIS is in the process of becoming part of the Pact for Skills large-scale partnership for Energy Intensive Industries.

### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Antonius Schröder, Social Research Centre Dortmund (sfs), TU Dortmund University – at [antonius.schroeder@tu-dortmund.de](mailto:antonius.schroeder@tu-dortmund.de)
- Check out the [website](#) of the SPIRE-SAIS Blueprint.

# Skill Training Alliance for the Future European Rail system – STAFFER

## 1. Overview of the Blueprint

### *Main aims and objectives*

[The Skill Training Alliance for the Future European Rail system – STAFFER](#) aims to develop a sustainable strategy to fill the gap between supply and demand for a suitably skilled workforce in the rail sector. The Blueprint also seeks to contribute to the Single European Railway Area.<sup>99</sup> STAFFER is supported by a budget of EUR 3.99 million. The work of the Blueprint started in 2020 and will continue until 2024.

## 2. Implementing the Blueprint

### *Governance structure*

The STAFFER consortium is coordinated by the University of Genoa<sup>100</sup> in Italy and is composed of 31 partners and 15 associated partners coming from 12 countries.<sup>101</sup> STAFFER is organised around nine Work Packages. Furthermore, four governance and management bodies were set up:

- a Steering Committee, which provides strategic direction to the Blueprint;
- an Advisory and Policy Board, which provides feedback and advice on the Blueprint results and includes internal and external experts;
- an Internal Quality Management Board (IQMB), which gathers all the project partners and assesses the quality of the project's outputs;
- an External Quality Management Board (EQMB), which gathers three high-profile experts who evaluate the project milestones.

### *Key deliverables*

The STAFFER Blueprint produced the following key deliverables:

- A STAFFER [brochure](#) and [video](#);

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<sup>99</sup> <https://www.consilium.europa.eu/en/policies/single-eu-railway-area/>

<sup>100</sup> <https://unige.it/en/>

<sup>101</sup> The full list of members is provided in the Annex.

- STAFFER [Mid-Term Report](#);
- A project [glossary](#);
- A [document](#) on the identification of current and future skills and competence needs;
- Two reports on the [future vision of the rail sector from the point of view of rail operators and infrastructure managers](#), and from the [point of view of the rail supply industry](#);
- Two reports on the [identification of skill needs and occupational profiles from the point of view of rail operators and infrastructure managers](#), and [from the point of view of suppliers](#);
- A [document](#) on the identification of qualifications standards;
- A [benchmarking of the existing programmes and catalogue of the best practices](#);
- Several [key findings documents](#) related to the Blueprint Work Packages;
- A [communication, dissemination and exploitation plan](#).

#### Success factors

The project has greatly benefited from the strong commitment from all the Blueprint consortium partners. As lockdown measures have been lifted, it is expected that the increased number of in-person events will allow better stakeholders engagement.

#### Challenges faced

Bringing together the key rail sector stakeholders has been the main challenge faced by the Blueprint. Stakeholders need to cooperate closely to anticipate skills needs, understand skills mismatches, and find ways to improve the connection between education and labour market realities. STAFFER has worked on defining a common perspective to overcome the sector's fragmentation.

### **3. Key results and impacts**

The main result of this Blueprint to date has been the establishment of a strong skills alliance for the rail sector, covering all stages of the value chain and setting up the Blueprint for an industry-driven, proactive skills strategy. This strategy will help overcome the fragmentation of the rail sector and help the rail industry and VET institutions take concrete actions to support the sector's transformation.

### **4. Looking forward: building synergies with the Pact for Skills and sustainability of results**

STAFFER has been working on a long-term strategy and action plan to ensure that the European rail sector continues to be a world leader in transport technologies, providing quality jobs and allowing citizens and goods to be transported safely and responsibly. The Blueprint results will be rolled out at national and regional level. Ongoing efforts are being made to coordinate with other Blueprints and industry associations working on a similar topic (e.g. the European Automobile Manufacturers'

Association (ACEA),<sup>102</sup> which coordinates the MATES project, and Sea Europe, which coordinates the SKILLSEA Blueprint). Synergies are also expected with other policy frameworks, such as regional Smart Specialisation strategies,<sup>103</sup> industrial clusters or Centres of Vocational Excellence. Furthermore, STAFFER is looking to build synergies with relevant large-scale partnerships under the Pact for Skill.

Lastly, STAFFER will make use of the 2023 European Year of Skills to further enhance its communication and dissemination activities.

### Would you like to find out more about this Blueprint?

- Reach out to the Blueprint Coordinator – Professor Angela Di Febbraro, University of Genoa – at [staffer.coordination@unige.it](mailto:staffer.coordination@unige.it)
- Check out the [website](#) of the STAFFER Blueprint.

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<sup>102</sup> <https://www.acea.auto/>

<sup>103</sup> <https://s3platform.jrc.ec.europa.eu/what-we-do>



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*01 Alliance for Batteries Technology, Training and Skills (ALBATTTS)*

<b>Partner</b>	<b>Country</b>
Skellefteå Municipality (Coordinator)	SE
ACEA	BE (EU Level)
AIA – Automotive Industry Association	CZ
ATEC	PT
Corvus Energy	NO
EFACEC Energia, Máquinas e Equipamentos Eléctricos	PT
Eupportunity	PT
HE3DA	CZ
InterTradeCard	RO
ISCN GesmbH	AT
MERINOVA Technology Centre	FI
Northvolt	SE
Realizeit (CCKF Limited)	IE
SPIN360	IT
Universidade do Porto	PT
University of Maribor	SI
University of Vaasa	FI
VAMIA	FI
Vestland County	NO
VŠB – Technical University of Ostrava	CZ

*02: Alliance for Strategic Skills addressing Emerging Technologies in Defence (ASSETs+)*

Partner	Country
University of Pisa	IT
Aalborg University	DK
University of Bordeaux	FR
Centrale Supélec	FR
Rzeszow University of Technology	PL
University of Cadiz	ES
University of Seville	ES
Polytechnic University of Madrid	ES
University Charles III of Madrid	ES
Royal Military Academy	BE
Mercantec	DK
AEROCAMPUS Aquitaine	FR
LEONARDO	IT
HENSOLDT	DE
AIRBUS	FR
ROLLS-ROYCE	International
Navantia	ES
Safran	International
SAAB	International
CenSec	DK
Distretto Tecnologico Aerospaziale della Campania	IT
CATEC	ES
Andalucía Aerospace	ES
SEA Europe	BE (EU level)
GICAN	FR
Fondazione Giacomo Brodolini srl	IT
EFW	BE (EU level)
CIMEA	IT

*03: Blueprint for Sectoral Cooperation on Skills in Work Integration Social Enterprises (B-WISE)*

<b>Partner</b>	<b>Country</b>
EASPD - European Association of Service Providers for Persons with Disabilities (Coordinator)	BE (EU level)
ENSIE - European Network of Social Integration Enterprises	BE (EU level)
Arbeit plus	AT
Johannes Kepler Universitat Linz	AT
Lichtwerk	BE
RES- Réseau d'entreprises sociales	BE
La fédération des entreprises d'insertion	FR
AFPA	FR
De Omslag	NL
ROC van Amsterdam	NL
NASOR - National Association of the Socially Responsible Employers	BG
Excellia	BG
Social Entrepreneurship Association of Latvia	LV
Samaritan Association of Latvia	LV
Stowarzyszenie Współpracy Regionalnej	PL
CERTES	PL
ACT Group	HR
Faculty of Law in Zagreb University	HR
Margarita	EL
Ev Zin	EL
AIAS Bologna onlus	IT
Idee In Rete	IT
EURISCE - European Research Institute on Cooperative and Social Enterprises	IT
Scuola Centrale Formazione	IT
SENT	SI
Cene Štupar	SI
CESUR	ES
Fundacion ONCE	ES
RISE Romania	RO
Fundatia „Alaturi de Voi”	RO

*04: Blueprint for Sectoral Cooperation on Blockchain Skill Development (CHAISE)*

<b>Partner</b>	<b>Country</b>
Université Claude Bernard Lyon 1 (Coordinator)	FR
Crypto4all	FR
Fujitsu	BE
INATBA - International Association for Trusted Blockchain Applications	BE (EU level)
DIGITALEUROPE	BE (EU level)
DIGITAL SME	BE (EU level)
The Ministry of Education and Religious Affairs (YPAITH)	EL
EXELIA	EL
ECQA Gmbh	AT
IOTA Foundation	DE
DHBW	DE
ACQUIN	DE
BerChain	DE
Universitat Politècnica de Catalunya	ES
CIMEA	IT
Italia4Blockchain	IT
INTRASOFT International	LU
CPI	SI
University of Ljubljana, Faculty of Electrical Engineering, Laboratory for Telecommunications	SI
University of Tartu	EE
ANC	RO
INDUSTRIA	BG
Economic and Social Research Institute	IE

*05: Blueprint for Cultural Heritage Actions to Refine Training, Education and Roles (CHARTER)*

Partner	Country
Universitat de Barcelona	ES
Eusko Jaurlaritzaren	ES
Akademie der bildenden Künste Wien	AT
Erasmus Universiteit Rotterdam	NL
Fondazione Scuola dei Beni e delle Attività Culturali	IT
Università degli studi di Genova	IT
Veneranda Fabbrica del Duomo	IT
Regione Toscana	IT
Göteborgs Universiteit	SE
Västra Götalands Läns Landsting	SE
Université Sorbonne Paris 13 Nord	FR
Department of Housing, Local Government and Heritage	IE
An Chomhairle Oidhreachta - The Heritage Council HC	IE
FARO. Vlaams steunpunt voor cultureel erfgoed	BE
Institutul National al Patrimoniului	RO
Kultur und Arbeit	DE
MUSEOVIRASTO - Finnish Heritage Agency	FI
Nacionālā kultūras mantojuma pārvalde	LV
Freie Hansestadt Bremen	DE
Verband der Restauratoren	DE
Zavod za varstvo kulturne dediščine Slovenije	SI
E.C.C.O. – European Confederation of Conservator-Restorers' Organisations	EU level
ENCATC – European Network for Cultural Management and Policy	EU level
European Historic Houses	EU level
ERRIN - European Regions Research and Innovation Network	EU level
ICOMOS - International Council on Monuments and Sites	International level
NEMO – Network of European Museums Organisations (Deutscher Museumsbund)	EU level
ADRAL – Agência de Desenvolvimento Regional de Alentejo	PT

*06: Establishing a new Strategy on Construction Skills in Europe (Construction Blueprint)*

Partner	Country
Fundación Laboral de la Construcción (FLC)	ES
European Construction Industry Federation (FIEC)	BE (EU level)
European Federation of Building and Woodworkers (EFBWW)	BE (EU level)
European Builders Confederation (EBC)	BE (EU level)
Associazione Nazionale Costruttori Edili (Ance)	IT
Confédération Construction (CC)	BE
Confederación Nacional de la Construcción (CNC)	ES
Fédération Française du Bâtiment (FFB)	FR
Gospodarska Zbornica Slovenije (CCIS)	SI
Lithuanian Builders Association (LSA)	LT
Panhellenic Association of Engineers Contractor of Public Works (PEDMEDE)	EL
Zentralverband des Deutschen Baugewerbes (ZDB)	DE
Budowlani	PL
Institute of Vocational Training (AKMI)	EL
Berufsförderungswerk der Bauindustrie NRW gGmbH (BFW-NRW)	DE
Bildungszentren des Baugewerbes e.V. (BZB)	DE
Comité de Concertation et de Coordination de l'Apprentissage du Bâtiment et des Travaux Publics (CCCA-BTP)	FR
Centre IFAPME Liège-Huy-Verviers	BE
Centro de Formação Profissional da Indústria da Construção Civil e Obras Públicas do Sul (Cenic)	PT
Ente per la Formazione e l'addestramento professionale nell'edilizia (Formedil)	IT
Limerick Institute of Technology (LIT)	IE
Satakunnan Koulutuskuntayhtymä (Sataedu)	FI
Šolski center Kranj (SCKR)	SI
Viesoji istaiga Vilniaus statybininku rengimo centras (VSRC)	LT

*07: Development and Research on Innovative Vocational Education Skills (DRIVES) - List of partners*

Partner	Country
VSB-TUO	CZ
ISCN	AT
TU Graz	AT
FH Joanneum	AT
ETRMA	BE (EU level)
ACEA	BE (EU level)
CLEPA	BE (EU level)
Efvet	BE (EU level)
Budapest University of Technology and Economics	HU
SPIN 360	IT
Confindustria	IT
University of Twente	NL
Symbol Business Improvement	NL
East Automotive Alliance	PL
APIA	RO
SERNAUTO	ES
Mondragon University	ES
AIC	ES
GESTAMP	ES
IPV	PT
IDESCOM	PT
Universidade do Minho	PT
Eupportunity	PT
Enginuity (former SEMTA)	UK



*08: Education for Digitalisation of Energy (EDDIE)*

Partner	Country
Comillas Pontifical University	ES
National Technical University of Athens (NTU)	EL
Rheinisch Westfaelische Technische Hochschule Aachen (RWTH)	DE
Research Centre for Sustainable Energy – University of Cyprus (FOSS)	CY
Politecnico di Milano (PoliMI) – METID	IT
Kungliga Tekniska högskolan (KTH)	SE
Escuelas Profesionales Padre Piquer (PIQUER)	ES
Centrul Roman al Energiei (CRE)	RO
Repsol SA	International
Iberdrola España SA	ES
NTT DATA	International
E.DSO for Smart Grids (E.DSO)	BE (European level)
Novel Group	LU
University of Cologne Business School GmbH (COLOGNE-UCBS)	DE
Institute of Energy Economics at the University of Cologne (COLOGNE-EWI)	DE

*09: Towards an innovative strategy for skills development and capacity building in the space geo-information sector supporting Copernicus User Uptake (EO4GEO)*

Partner	Country
GISIG	IT
KU Leuven	BE
Paris-Lodron-Universität Salzburg	AT
EIT Climate-KIC	NL
Universidad Jaume I (UJI)	ES
University of Zagreb (GEOF)	HR
University of Patras (UPAT)	EL
GISIG	IT
KU Leuven	BE
Friedrich-Schiller University Jena (FSU-EO)	DE
University of Twente (UT-ITC)	NL
University of Basilicata (UNIBAS)	IT
Institute of Geodesy and Cartography (IGiK)	PL
Planetek	IT
NOVOGIT	SE
GIB	SE
Spatial Services GmbH	AT
EARSC	BE
Romanian Space Agency (ROSA)	RO
UNEP/GRID	PL
NEREUS	BE
VITO	BE
CNR-IREA	IT
Institute for Environmental Solutions (VRI IES)	LV
ISPRA	IT

*10: European Steel Skills Agenda and Alliance (ESSA)*

Partners	Country
TU Dortmund University	DE
Thyssenkrup Steel Europe	DE
ArcelorMittal Poland	PL
ArcelorMittal Spain	ES
Salzgitter AG	DE
Sidenor	ES
Celsa Group/Barna Steel	ES
Tata Steel	NL
Steel Institute VDeh	DE
IMZ	PL
Scuola Superiore Sant'Anna	IT
Worldsteel Steel University	BE (EU level)
DEUSTO	ES
Cardiff University	UK
ThyssenKruppSteel Europe Training Centre	DE
ArcelorMittal Spain Training Centre	ES
EUROFER	BE (EU level)
World Steel Association	BE (EU level)
UNESID Spanish Steel Association	ES
Belgium Steel Platform	BE
Wirtschaftsvereinigung Stahl - German Steel Federation	DE
Federacciai – Italian Steel Federation	IT
CIELFFA European Cold Rolled Steel Association	DE
Association of Finish Steel and Metal Producers	FI
OS KOVO	CZ
RINA/CSM	IT
Visionary Analytics VA	LT

*11: European Software Skills Alliance (ESSA)*

Partner	Country
DIGITALEUROPE	BE (EU level)
Adecco Formazione	IT
AICA	IT
MODIS	IT
UNINFO	IT
AKMI	EL
AMETIC	ES
ASIIN Consult	DE
BCS Training	EE
Budapest University of Technology and Economics	HU
Codecool	HU
IVSZ	HU
Digital Technology Skills	IE
Irish Computer Society	IE
Global Knowledge France	FR
Global Knowledge Netherlands	NL
Chamber of Commerce and Industry of Slovenia	SI
University of Ljubljana	SI
Hellenic Open University	EL
HU University of Applied Sciences Utrecht	NL
Warsaw School of Computer Science	PL

*12: Addressing the current and Future skill needs for sustainability, digitalisation and the bio-Economy in agriculture: European skills agenDa and Strategy (FIELDS)*

Partner	Country
UNITO	IT
CONFAGRI	IT
WUR	NL
ISEKI	AT
ICOS	IE
AERES	NL
AP	AT
UHOH	DE
CERTH	EL
ACTIA	FR
GAIA	EL
CONFAGRI	PT
SCOOP	ES
GZS	SI
LVA	AT
ULCM	ES
AC3A	FR
FIAB	ES
FDE	BE (EU level)
FENACORE	ES
INFOR	IT
SEVT	EL
LLL-P	BE (EU level)
ANIA	FR
PLANT ETP	BE (EU level)
EfB	EL
PA	FI
FJ-BLT	AT
EfVET	BE (EU level)
Cepi	BE (EU level)
AGACA	ES

*13: Maritime Alliance for fostering the European Blue Economy through a Marine Technology Skilling Strategy (MATES)*

Partner	Country
AMC - AQUALEX Multimedia Consortium	IE
AQUATERA – AQUATERA Limited	UK
AquaTT - AquaTT UETP Ltd	IE
ASIME - Asociacion de Industriales Metalurgicos De Galicia	ES
CERTH - Ethniko Kentro Erevnas kai Technologikis Anaptyxis	EL
COSNAV Engineering	IT
CT Ingenieros	ES
Forum Oceano - - Associação da Economia do Mar	PT
FRCT - Fundo Regional Para a Ciencia e Tecnologia	PT
Indigo-Med	EL
Strathclyde University- NAOME	UK
UDC - Universidade da Coruña	ES
Ugent - Universiteit Gent	BE
UVA - Universiteit Van Amsterdam	NL
WEGEMT - Foundation Wegemt - a European Association of Universities in Marine Technology and Related Sciences	NL
Xunta de Galicia – Consellería de Cultura, Educación e Universidade	ES

*14: Microelectronics Training, Industry and Skills (METIS)*

Partner	Country
SEMI Europe (Project Coordinator)	DE (EU Level)
Infineon Technologies	AT
Technical University of Graz	AT
Imec	BE
European Association of Career Guidance	CY
Summa Semiconductor Oy	FI
X-FAB France	FR
DECISION	FR
Bosch	DE
Silicon Saxony	DE
Dresden Chip Academy	DE
Budapest University of Technology and Economics	HU
IAL-FVG	IT
CIMEA	IT
University of South-Eastern Norway	NO
Graphenea	ES
WiTEC	SE
Arcelik	TR

*15: Next Tourism Generation Alliance (NTG)*

Partner	Country
Federturismo Confindustria	IT
Unioncamere	IT
CEHAT	ES
VIMOSZ	HU
DSFT	DE
People 1 <sup>st</sup> International	UK
Ruraltour	-
Technological University Dublin	IE
University of Sopron	HU
Cardiff Metropolitan University	UK
Alicante University	ES
Breda University of Applied Sciences	NL
Varna University of Management	BG
ATLAS – Association for Tourism and Leisure Education and Research	-



*16: The Cybersecurity Skills Alliance – New Vision for Europe (REWIRE)*

Partner	Country
Mykolas Romeris University (Coordinator)	LT
EKT	LT
NRD Cybersecurity	LT
Infobalt	LT
TUV	AT
Apiroplus Solutions	CY
European University Cyprus	CY
Cyprus Certification Company	CY
Brno University of Technology	CZ
Masaryk University	CZ
EC-Council	UK
EfVET	BE (EU level)
EVTA	BE (EU level)
Telecom SudParis	FR
Université de Lorraine – Telecom Nancy	FR
Technical University of Crete	EL
Metropolitan College	EL
ReadLab	EL
Lloyd's register	EL
BME	HU
Técnico Lisboa	PT
Unicom Telecom	RS
CaixaBank	ES
laSalle	ES
KTH	SE

*17: Skills for Smart Textile, Clothing, Leather and Footwear Industries 2030 (S4TCLF)*

Partner	Country
EURATEX - European Apparel and Textile Confederation (Coordinator)	BE (EU level)
CEC - European Footwear Confederation	BE (EU level)
COTANCE - European Confederation of the Leather Industry	BE
IVOC	BE
COBOT - Training Centre for the Belgian Textile Industry	BE
CIAPE	IT
PIN - Servizi didattici e scientifici per l'universita di Firenze	IT
POLICA - Politecnico Calzaturiero	IT
SPIN360	IT
UDL - Universitat de Lleida	ES
UPC - Universitat Politècnica de Catalunya	ES
FUNDAE - Fundacion Estatal para la Formacion en el Empleo	ES
INESCOP	ES
CITEVE - Centro Tecnológico das Indústrias Têxtil e do Vestuário de Portugal	PT
CTCP - Centro Tecnológico do Calçado de Portugal	PT
Virtual Campus	PT
CNDIPT - Centrul National de Dezvoltare a Invatamantului Profesional si Tehnic	RO
TUIASI - Universitatea Tehnica Gheorghe Asachi din Iasi	RO
UNITEX	FR
HCIA - Hellenic Clothing Industry Association	EL
PIRIN-TEX EOOD	BG
TUL - Lodz University of Technology	PL

*18: Sector Skills Strategy in Additive Manufacturing (SAM)*

Partner	Country
European Welding Foundation (EWF)	BE (EU level)
Aitiip	ES
Brunel University	UK
Cecimo	BE (EU level)
EPMA	BE (EU level)
Ansys	UK
Idonial	ES
LORTEK	ES
ISQ	PT
LMS	EL
Centrale Nantes	FR
IMR	IE
LZH Laser Akademie	DE
Materialise	BE
MTC	UK
Politecnico	IT
FavoriteAnswer	PT

*19: Future-proof skills for the maritime transport sector (SKILLSEA)*

Partner	Country
Stichting STC Group (STC-Group)	NL
European Community Shipowners' Association (ECSA)	BE (EU level)
European Transport Workers Federation (ETF)	BE (EU level)
Universitatea Maritimă din Constanța	RO
Danish Maritime Authority	DK
Danish Shipping	DK
Enterprise Shipping Agency	IT
TalTech	EE
Eugenides Foundation	EL
B&FC	UK
École Nationale Supérieure Maritime	FR
HSBA Hamburg School of Business Administration	DE
Liverpool John Moores University	UK
National Maritime College of Ireland	IE
Nautilus	UK
NTNU	NO
SEA Europe	BE (EU level)
Secrétariat général de la Mer	FR
SIMAC	DK
Sindicatul Liber al Navigatorilor	RO
Stena Line	SE
University of the Aegean	EL
University of Cadiz	ES
Faculty of Maritime Studies	HR

*20: Skills Alliance for Industrial Symbiosis - a Cross-Sectoral Blueprint for a Sustainable Process Industry (SPIRE-SAIS)*

Partner	Country
A.SPIRE	BE (EU level)
AGBAR	
ArcelorMittal Global R&D	ES
ARGO	IT
ART-ER	IT
Carbon Market Watch	BE (EU level)
Cefic	BE (EU level)
CEMBUREAU	BE (EU level)
Cerame-Unie	BE (EU level)
CIRCE	ES
Circle Economy	NL
Covestro Deutschland AG	DE
ECEG	BE (EU level)
EIT Raw Materials	DE (EU level)
ESTEP	BE (EU level)
European Aluminium	BE (EU level)
Ferriere Nord Spa	IT
H2O People	NL (EU level)
IMA Europe	BE (EU level)
IndustriALL	BE (EU level)
Instituto de Tecnología Química	ES
Institutul National de Cercetare-Dezvoltare pentru Metale Neferoase si Rare (IMNR)	RO
International Synergies	UK
ISQ	International
ITC	ES
Lukasiewicz-IMN	PL
Mytilineos	EL
RINA	International
Scuola Superiore Sant'Anna	IT
SIDENOR ACEROS ESPECIALES, S.L	ES
Skillman	International
TU Dortmund	DE
ThyssenKrupp Steel Europe	DE
University of Deusto	ES
Visionary Analytics	LT
Water Europe	BE (EU level)

*21: Skill Training Alliance for the Future European Rail system (STAFFER)*

Partner	Country
UNIVERSITA DEGLI STUDI DI GENOVA (Coordinator)	IT
FACHHOCHSCHULE ST. POLTEN GMBH	AT
Höhere technische Bundeslehranstalt Wien 3 Rennweg	AT
HTL Mödling	AT
ÖBB Technische Services GmbH	AT
ALSTOM BELGIUM SA	BE
Community of European Railway and Infrastructure Companies	BE
UNION DES INDUSTRIES FERROVIAIRES EUROPEENNES - UNIFE	BE
CESKE VYSOKE UCENI TECHNICKE V PRAZE	CZ
BOMBARDIER TRANSPORTATION GMBH	DE
DEUTSCHE BAHN AG	DE
FACHHOCHSCHULE ERFURT	DE
SIEMENS MOBILITY GMBH	DE
TECHNISCHE UNIVERSITAET DRESDEN	DE
wmp consult - Wilke Maack GmbH	DE
Construcciones y Auxiliar de Ferrocarriles, S.A.	ES
MAFEX- ASOCIACION ESPANOLA DE FABRICANTES EXPORTADORES DE MATERIAL, EQUIPOS Y SERVICIOS FERROVIARIOS	ES
CESI	FR
CONSERVATOIRE NATIONAL DES ARTS ET METIERS	FR
Ecole Supérieure des Techniques Aéronautiques et de Construction Automobile	FR
Fédération des industries ferroviaires	FR
SNCF	FR
ARISTOTELIO PANEPITIMIO THESSALONIKIS	GR
FERROVIE DELLO STATO ITALIANE SPA	IT
For.Fer Srl	IT
HITACHI RAIL STS SPA	IT
UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
Société Nationale des Chemins de Fer Luxembourgeois	LU
SZKOLA GLOWNA HANDLOWA W WARSZAWIE	PL
"Infrastructure of Serbian Railways" JSCRSUNIVERZITET U BEOGRADU	RS