TRiREME

DIGITAL & GREEN SKILLS TOWARDS FUTURE OF THE MOBILITY ECOSYSTEM

Co-funded by the European Union

NEW AND EMERGING OCCUPATIONAL PROFILES IN THE SECTOR – RELEASE I

ERASMUS+ Blueprint project TRIREME Partnership Report

DOCUMENT INFORMATION

Report title	New and Emerging Occupational Profiles in the Sector – Release I			
Responsible Project Partner	ATEC, ACEA	**Contributing Project Partners**	VSB, ASA, ITC, SPIN360, ISCN, UCRS, CLEPA, CECRA, ACEA, ETRMA, IndustriALL, CEEMET, EUPPY,	
Document data:	**File Name: D3.2** New and Emerging Occupational Profiles in the Sector – Release I**, part 1**			
	No. of Pages:	43	**No. of Annexes:**	2
	Status:	R	**Dissemination Level:**	PU
Project Title:	TRIREME-Digital & Green Skills Towards Future of The Mobility Ecosystem	**Grant Agreement ID/ Project No.:**	101140001	
WP Title	WP3 Sectoral Skills Strategy and Update	**Deliverable No.:**	D3.2	
Due Date:	28/2/2026	**Submission Date:**	27/2/2026	
Keywords: Emerging, job profile, skill card, skill, knowledge				
Reviewed by:	Marek Spanik, Simona Jursova	**Review Date:**	09/02/2026	
Approved by:	Jakub Štolfa	**Approval Date:**	27/2/2026	

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

TABLE OF CONTENTS

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

LIST OF ABBREVIATIONS

ASA	Automotive Skills Alliance
CEDEFOP	European Centre for the Development of Vocational Training
EQF	European Qualification Framework
ESCO	European Skills, Competences, Qualifications and Occupations
EU	European Union
HEI	Higher Education Institution
ISCO	International Standard Classification of Occupations
KPI	Key Performance Indicator
MOOC	Massive Open Online Course
QTY	Quantity
QLTY	Quality
VET	Vocational Education Training
WPs	Work packages

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

EXECUTIVE SUMMARY

This report, “New and Emerging Occupational Profiles in the Sector – Release I” (Deliverable D3.2 Part I), presents the first release of new and emerging occupational profiles developed within the TRIREME project, addressing the evolving skills needs of the automotive-mobility ecosystem. Building on the sectoral intelligence gathered in WP2 (Continuous Skills Intelligence Gathering), the deliverable translates evidence on digitalisation, green transition, value-chain resilience and new business models into a structured set of competence-based occupational profiles, referred to as Skills Cards.

Release I includes 30 Skills Cards representing a validated and harmonised snapshot of emerging competence requirements across the sector. It covers a broad range of qualification levels and functional areas, reflecting the multi-layered transformation of the automotive ecosystem. Of the 30 profiles, 13 are primarily aligned with EQF levels 3–5 and 17 with EQF levels 6–7. Across all profiles, 337 competences have been identified (211 skills and 126 knowledge elements), structured into digital, green, transversal, soft, sector-specific and other competence categories. The Skills Cards are clustered into five main areas of expertise: Smart Manufacturing & Automation; Digital Infrastructure & Connectivity; Safety, Security & Quality Assurance; Sustainability, Energy & Environmental Impact; and Innovation, Skills & Workforce Transformation. Competences are clearly distinguished between knowledge and skills, formulated using learning-outcome-oriented language based on Bloom’s taxonomy, and assigned standardised proficiency levels (awareness, practitioner, specialist) with indicative EQF correspondence.

As a first release, New and Emerging Occupational Profiles in the Sector – Release I within D3.2 Part 1, establishes a robust and transparent framework for defining emerging occupational profiles in the automotive-mobility sector. It provides a structured foundation for future iterations, refinement and expansion of Skills Cards, while contributing to European skills intelligence initiatives and supporting dialogue with ESCO and other European qualification and classification frameworks

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

1. INTRODUCTION

The automotive-mobility ecosystem undergoes profound transformation driven by digitalisation, decarbonisation, increasing system complexity and evolving business models. These shifts are redefining occupational structures and competence requirements across the entire value chain. This report, "New and Emerging Occupational Profiles in the Sector – Release I" (Deliverable D3.2 Part I), responds to these developments by presenting the first release of new and emerging occupational profiles developed within the TRIREME project. The deliverable forms part of Work Package 3 (Sectoral Skills Strategy and Update) and builds directly on the evidence generated in WP2 Continuous Skills Intelligence Gathering. WP2 (Continuous Skills Intelligence Gathering) provided a triangulated evidence base through desk research, stakeholder surveys and expert workshops, identifying trends, skills gaps and evolving job roles across the sector. The report translates these analytical findings into structured occupational profiles expressed through competence-based Skills Cards.

The first part of the report presents the methodology used to define the Skills Cards. Central to this methodology is the Competence Matrix, which consolidates knowledge and skills in a harmonised format, links them to trends and job roles, and enables systematic clustering and prioritisation. The matrix ensures traceability between sectoral intelligence and occupational profile definition while supporting alignment with European reference frameworks such as ESCO and EQF.

Based on this matrix, job roles are identified, competences selected and contextualised, and proficiency levels assigned. The methodology includes explicit steps for ESCO mapping, indicative EQF alignment and stakeholder validation, ensuring that the resulting Skills Cards are evidence-based, comparable and adaptable across different national and sectoral contexts. The deliverable also provides an analytical overview of the 30 Skills Cards developed in Release I, examining their distribution across EQF levels, competence categories, areas of expertise and sectoral contexts.

Furthermore, the report situates the Skills Cards within a broader strategic perspective. The profiles are integrated into the Skills Hub competence architecture, supporting scalability and long-term sustainability. The report also outlines how future releases will refine and expand the profiles in line with updated skills intelligence, stakeholder feedback and European policy developments, including upcoming ESCO updates. As such, the report does not merely present a set of occupational profiles. It establishes a structured and iterative framework for defining, harmonizing, and updating new and emerging roles in the automotive-mobility

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ecosystem, supporting alignment among industry needs, education and training systems, and European skills governance instruments.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

2. METHODOLOGY FOR THE DEFINITION OF SKILLS CARDS

The definition of new and emerging occupational profiles within Task 3.3 follows a structured, evidence-based and iterative methodology, ensuring traceability between sectoral intelligence (WP2) and the Skills Cards developed in WP3, while supporting alignment with European reference frameworks such as ESCO and EQF.

To ensure transparency, replicability and alignment with European skills and qualifications frameworks, the methodological approach adopted in Task 3.3 is summarised in the diagram below.

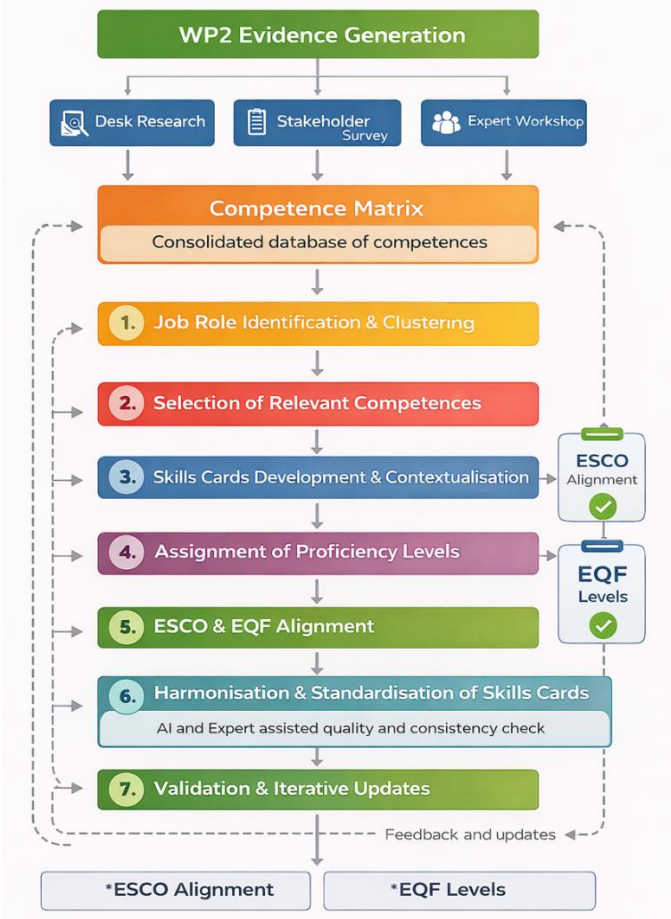

Figure 1 - Methodological workflow for the definition of new and emerging occupational profiles

Figure 1 illustrates the methodological workflow adopted in the project for the definition of new and emerging occupational profiles in the automotive sector. The process builds on evidence generated in WP2 Sectoral Intelligence through desk research, stakeholder surveys and expert workshops, which is consolidated into a Competence Matrix serving as the foundation for skills analysis. Based on this matrix, job roles are identified and clustered,

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

relevant competences are selected, and Skills Cards are developed and contextualised. Proficiency levels are then assigned and aligned with ESCO and EQF frameworks. To ensure consistency, comparability and quality across all profiles, an explicit harmonisation and standardisation step is applied after ESCO and EQF alignment, addressing competence naming conventions, learning-outcome-oriented descriptions based on Bloom's taxonomy, and coherence of level definitions. The methodology concludes with validation and iterative updates, incorporating expert and stakeholder feedback to refine the original matrix and update the occupational profiles.

2.1. WP2 EVIDENCE BASE: DATA SOURCES AND ANALYTICAL INPUTS

The methodological process starts with the consolidation of evidence generated in **Work Package 2 – Continuous Skills Intelligence Gathering**, which provides a multi-source and triangulated view of trends, skills needs and job role evolution in the automotive-mobility ecosystem.

The following WP2 Skills Intelligence deliverables constitute the primary data sources:

- **D2.1 Desk Research Report**, providing a structured review of policy documents, sectoral studies, technological roadmaps and labour market analyses.
- **D2.1 Survey Report on carried out surveys and interviews inputs**, capturing quantitative and qualitative insights from stakeholders across the automotive-mobility value chain on trends, preparedness, relevance and skills impacts.
- **D2.1 Workshops Report**, collecting expert-driven, bottom-up intelligence through facilitated discussions, SWOT analyses and prioritisation exercises across the four core trend areas (digitalisation; green and sustainability; resilience of value chains; new business models).

Together, these three deliverables ensure coverage of[1]:

- macro- and micro-trends,
- current and emerging job roles,
- skills gaps and training needs,
- perceived relevance and preparedness levels across the sector.

These inputs form the evidence backbone for the construction of the Competence Matrix and subsequent Skills Cards development.

[1] TRIREME WP2 Deliverables – D2.1 Desk Research, Survey and Workshops Reports.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

2.2. The Competence Matrix as the cornerstone of the methodology

The **Competence Matrix** represents the first formal step of the WP3 methodology and acts as the **central integrative tool** linking Skills Intelligence (WP2) evidence to occupational profile definition.

The matrix is conceived as a **structured database of competences**, where knowledge and skills are:

- collected in a harmonised format,
- mapped to trends and megatrends,
- categorised according to competence types,
- linked to ESCO where possible,
- and associated with job roles and departments.

From a methodological perspective, the Competence Matrix serves multiple functions:

- it consolidates dispersed skills intelligence into a single analytical framework;
- it enables the identification of emerging job roles based on competence clustering;
- it supports gap analysis and prioritisation;
- it provides a reusable and updateable foundation for Skills Cards, training design and ESCO dialogue.

The matrix structure includes dedicated sheets covering:

- lists of competences (knowledge and skills) with general descriptions and ESCO mapping;
- trends and megatrends, assigned to competences;
- competence categories;
- job roles and job families (for analytical clustering);
- departments and functional areas;
- competence–job role mappings with defined proficiency levels (awareness, practitioner, expert).

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Proficiency Levels

Awareness: understands the background of the knowledge, competence/skill, and its implications to be able to understand how it is applied in the environment.

Practitioner: strong understanding of the knowledge, experience in the competence/skill. Able to apply knowledge, the experience of the competence/skill and share with others including tools and techniques, define and use the most appropriate for the solution.

Expert: an expert knowledge or competence/skill ability to develop and apply procedures and activities as an individual and/or provide his qualified opinion to a team. Recognized specialist and advisor in the generation of solutions and ideas, including methods, tools, techniques, guiding or leading others in best practice use of the specific knowledge and skill.

Importantly, competences are described **in a general and transversal manner** within the matrix. Their contextualisation and operationalisation for a specific occupational profile is performed at the **Skills Card level**, ensuring both consistency and flexibility.

2.3. From the Competence Matrix to Skills Cards

Building on the Competence Matrix, the methodology proceeds with the definition of occupational profiles in the form of Skills Cards.

This step follows a clearly defined process:

1. Identification and clustering of job roles

Job roles emerging from WP2 Skills Intelligence evidence are reviewed, consolidated and, where relevant, grouped into families for analytical purposes. Decisions on role granularity are supported by competence patterns identified in the matrix.

2. Selection of relevant competences

For each occupational profile, competences are selected from the matrix based on the profile and partners expertise, considering:

- relevance to dominant and emerging trends,
- frequency and criticality across WP2 sources,
- sectoral specificity and regulatory context.

3. Contextualisation at Skills Card level

General competence descriptions from the matrix are contextualised to the specific job role, translating abstract formulations into role-relevant tasks and responsibilities.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

4. Assignment of proficiency levels

Each competence is associated with a proficiency level (awareness, practitioner, expert), supporting alignment with learning outcomes and qualification frameworks.

5. Alignment with ESCO and EQF

Occupational profiles are mapped to existing ESCO occupations and skills where available. Gaps or emerging definitions are explicitly documented. Indicative EQF levels are assigned based on autonomy, responsibility and complexity.

6. Validation and refinement

Skills Cards undergo internal consolidation and partner validation. Feedback from stakeholders and interaction with the ESCO team inform future updates.

This structured approach ensures that the Skills Cards are:

- evidence-based,
- comparable across profiles,
- adaptable to different education and training contexts,
- and suitable for progressive refinement over time.

2.4. HARMONISATION AND STANDARDISATION OF SKILLS CARDS

Following the transition from the Competence Matrix to individual Skills Cards, a dedicated **harmonisation and standardisation step** was implemented to ensure consistency, comparability and quality across all occupational profiles developed in Release I.

Given the collaborative nature of the Skills Cards development process and the diversity of contributing partners and domains, this step was considered essential to guarantee that all profiles adhere to a common conceptual and pedagogical framework, while remaining aligned with European reference systems.

The harmonisation process focused on three main dimensions:

a) Consistent distinction between knowledge and skills

A clear and systematic distinction was applied between knowledge and skills competences. Competence titles and formulations were standardised to reflect this distinction explicitly,

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ensuring alignment with ESCO logic and learning-outcome-oriented frameworks. Knowledge competences focus on understanding, principles and concepts, while skills competences describe the ability to apply methods, tools and procedures in a professional context.

b) Standardised competence descriptions using Bloom's taxonomy

All competence descriptions were harmonised using action verbs derived from Bloom's taxonomy, supporting a consistent interpretation of cognitive and practical complexity across profiles. This approach ensures that competences are expressed as observable and assessable learning outcomes, facilitating their translation into curricula, training modules and micro-credentials across different education and training settings.

c) Harmonised competence levels with EQF correspondence

Competence levels were reviewed and standardised using a three-level structure (awareness, practitioner, specialist), with an indicative correspondence to EQF levels. This alignment supports transparency regarding the expected degree of autonomy, responsibility and complexity associated with each competence, and reinforces coherence between individual competences and the overall EQF level assigned to each occupational profile.

This harmonisation step was supported by an AI-assisted standardisation process, used to identify inconsistencies in terminology, structure and level descriptions across Skills Cards. The outputs of this process were reviewed and validated by project experts, ensuring that standardisation enhanced coherence without compromising sector-specific relevance or expert judgement.

By introducing this harmonisation and standardisation phase, the project ensures that the Skills Cards developed in Release I form a coherent, high-quality and scalable set of occupational profiles, suitable for iterative updates and future integration into European skills classification and qualification systems.

2.5. Integration of the Skills Cards into the Skills Hub

Following their development, validation and harmonisation within Task 3.3, the Skills Cards produced by the project are integrated into the Skills Hub (as a part of the whole ecosystem and the pan-european Academy efforts) in order to ensure long-term consistency, reusability and alignment with a common sector-wide competence framework.

The Skills Hub provides a structured and updated competence matrix covering the full scope of the automotive-mobility sector (not just the sub-set elaborated within the Skills Cards

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

creation). This matrix introduces a revised competence architecture organised across four layers (L1–L4), allowing for a clear differentiation between broad competence domains, sub-domains, competence groups and individual competences and their descriptions. The updated structure is designed to accommodate sectoral evolution, enable cross-project comparability and support integration with digital platforms and European skills intelligence instruments.

The integration of the TRIREME Skills Cards into the Skills Hub is carried out through a systematic mapping process. Each Skills Card, as reviewed and validated by project partners and stakeholders, is analysed and mapped from its existing TRIREME competence descriptions to the corresponding elements of the Skills Hub competence matrix. As the Skills Hub matrix is broader and more comprehensive by design, it fully encompasses the competences identified within the TRIREME Skills Cards.

This mapping exercise does not introduce new competences nor does it modify the substantive content of the Skills Cards. Instead, it ensures that existing TRIREME competences are expressed using the formal syntax, naming conventions and structural logic of the Skills Hub. As a result, the Skills Cards remain semantically equivalent to their original versions, while benefiting from increased formalisation, internal coherence and consistency with other sectoral competence definitions hosted within the Skills Hub.

Through this integration process:

- individual competences from TRIREME Skills Cards are aligned with the relevant L1–L4 layers of the Skills Hub matrix;
- terminology and descriptions are standardised to match existing Skills Hub competence definitions;
- consistency is ensured across all TRIREME Skills Cards and with other skills profiles integrated into the Skills Hub.

Once the mapping and formalisation process is completed, the integrated Skills Cards are exported from the Skills Hub environment. These exported profiles constitute an updated and harmonised version of the TRIREME Skills Cards, which are then published as the new official version within the project.

By integrating the Skills Cards into the Skills Hub, the project ensures that its outputs are not only internally coherent, but also compatible with broader sectoral skills intelligence initiatives. This step supports scalability, future updates and potential reuse of the Skills Cards

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

beyond the project lifetime, while preserving the integrity and stakeholder-validated content developed within TRIREME.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

3. SKILL CARDS STRUCTURE

Building on the methodological approach described in Section 2, the **Skills Cards** constitute the main operational output of Task 3.3.

3.1. PURPOSE AND ROLE OF THE SKILLS CARDS

Within the project, Skills Cards constitute the core instrument for representing new and emerging occupational profiles in a structured, transparent and comparable way. Based on evidence consolidated in the Competence Matrix, Skills Cards translate sectoral skills intelligence into competence-based profiles that can be used across education, training, employment and policy contexts.

Skills Cards are not intended to function as traditional job descriptions. Instead, they provide a **competence-oriented representation of occupational profiles**, focusing on the knowledge, skills and transversal capabilities required to perform a given role in the context of ongoing digital, green and organisational transformations. This approach supports flexibility and transferability, allowing the profiles to be adapted to different national, sectoral and organisational settings.

By adopting a common structure across all profiles, the Skills Cards ensure internal coherence within the project outputs and facilitate comparison across roles, qualification levels and areas of expertise.

The Skills Cards developed within the project are made publicly available through the project website, ensuring transparency and accessibility for a wide range of stakeholders. The online presentation allows users to explore the full set of occupational profiles developed so far and illustrates the application of a common structure across different roles, qualification levels and areas of expertise (see Figure 2).

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

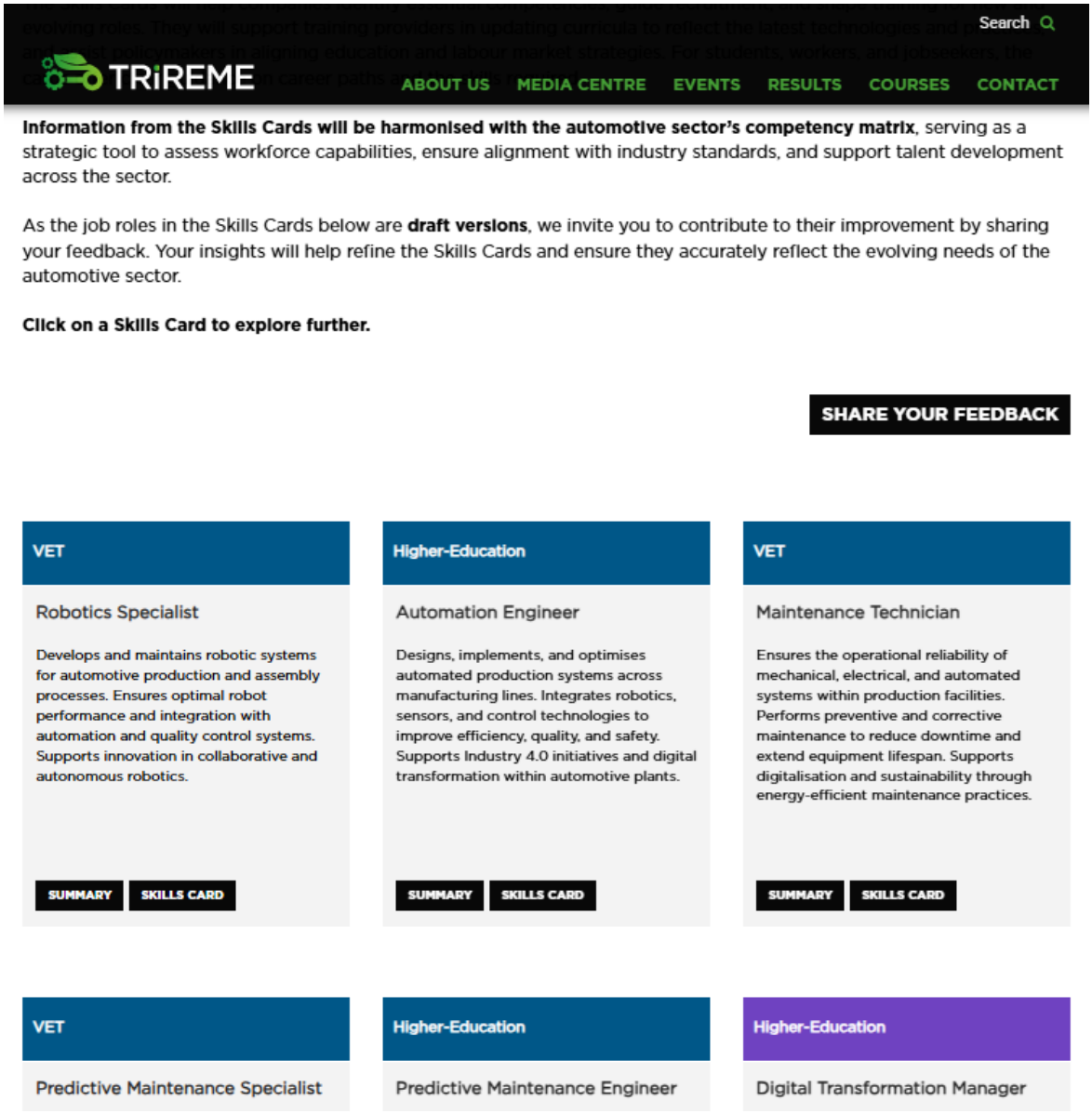

Figure 2 - Overview of Skills Cards as published on the TRIREME project website (*Source: TRIREME project website*[2])

3.2. STANDARD STRUCTURE OF THE SKILLS CARDS

All Skills Cards developed in the project follow a **common and standardised template**, ensuring consistency and comparability across occupational profiles. To support transparency, replicability and future uptake of the project results, the standard Skills Card template used for the development of all occupational profiles is provided as an annex to this deliverable.

[2] https://project-trireme.eu/en/skillscards?

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

The template specifies the structure, fields and competence categories to be used when creating or updating Skills Cards and can be reused by external stakeholders for the definition of additional occupational profiles in future iterations.

Each Skills Card is composed of the following main elements:

Profile header and overview

The header includes the name of the occupational profile and a short descriptive summary. This overview outlines the purpose of the role, its main areas of activity and its relevance within the sectoral context.

Contextual information

Each profile is contextualised through:

- **Indicative EQF level(s)**, typically ranging from EQF 3 to EQF 8, reflecting the expected level of autonomy, responsibility and complexity;
- **Departments or functional areas** in which the role is commonly situated (e.g. production and maintenance, logistics, purchasing, R&D, IT & digital, environment);
- **ESCO mapping**, identifying related ESCO occupations and, where applicable, ESCO skills. This mapping supports alignment with European classification systems and highlights areas where new or emerging profiles extend beyond existing ESCO definitions.

Competence structure

Competences within each Skills Card are organised into clearly defined categories:

- Green competences
- Digital competences
- Soft skills
- Transversal competences
- Sector-specific competences
- Other competences (when relevant)

Within each category, competences are described using a harmonised structure that distinguishes between **knowledge** and **skills**. For each competence, the Skills Card includes:

- a general description of the competence;
- a contextualised description, specifying activities and tasks as they relate to the occupational profile;

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- an assigned proficiency level (awareness, practitioner, specialist);
- a reference to ESCO, where available.

The common structure applied to all Skills Cards reflects the harmonisation and standardisation process described in Section i).

An example of an individual Skills Card, as presented on the project website, is shown in Figure 3. The figure illustrates how the standard structure described above is implemented in practice, including the profile overview, contextual information (EQF level, departments and ESCO mapping) and the organisation of competences into clearly defined categories.

TRiREME

Robotics Specialist

A Robotics Specialist in the automotive sector is responsible for designing, programming, integrating, and maintaining robotic systems that automate key processes such as welding, assembly, painting, and quality inspection. These professionals work at the intersection of mechanical engineering, electronics, and software, ensuring robots perform with precision, consistency, and safety. They configure hardware and software components, calibrate sensors, write control algorithms, and validate simulation models before deployment.

Core responsibilities include optimizing robotic operations for increased throughput, reducing downtime, and ensuring compliance with safety standards. Robotics Specialists collaborate with cross-functional teams—engineers, technicians, and IT staff—to develop reliable, innovative, and adaptable robotic applications. They also provide support for system troubleshooting and continuously improve robotic efficiency and integration across production workflows.

Within the automotive sector, Robotics Specialists are key enablers of Digitalisation (Industry 4.0/5.0, AI, simulation, and digital twins), Green Innovation (supporting energy-efficient processes and reduced emissions), Value Chain Resilience (through predictive maintenance and flexible automation), and New Business Models (such as smart manufacturing and on-demand production). Their role is crucial to meeting the growing demand for quality, customisation, and sustainability in automotive manufacturing.

ESCO Mapping

https://esco.ec.europa.eu/select-language?destination=/node/1

ID	NAME	Concept URI
3119.2.1	Robotics engineering technician	https://esco.ec.europa.eu/en/classification/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Foccupation%2F7833d5cd-873d-4fdd-b2f8-9762d68494a7

1

Co-funded by the European Union. Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

TRiREME

Context

EQF Level	5-6
Departments	Production Maintenance R&D (Research and Development)

Green Competences

ID	Name	Type	Description	Level	ESCO
	Energy-efficient automation	Knowledge	Explain strategies and technologies to reduce energy consumption in robotic manufacturing systems. ▪ Identify low-energy robotic components and systems. ▪ Describe the role of regenerative drives and energy recovery. ▪ Compare energy profiles of different motion paths. ▪ Evaluate the impact of idle-time reduction and smart scheduling.	2	Link
	Monitor and optimise energy use	Skill	Monitor and analyse energy use data to improve robotic process efficiency. ▪ Use software tools to track power usage in robotic workcells. ▪ Interpret energy audit data for process improvement. ▪ Recommend adjustments to reduce consumption without compromising performance. ▪ Collaborate with energy managers to implement energy-saving measures.	3	

Digital Competences

ID	Name	Type	Description	Level	ESCO
	Robotics programming	Knowledge	Explain the syntax, structure and application of robotics-specific programming languages (e.g., Python, C++, ROS). ▪ Describe strategies for implementing and optimising robot behaviours through code.	3	

2

Co-funded by the European Union. Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Figure 3 - Example of an individual Skills Card following the standard project template (Source: TRIREME project website)

This structure ensures that competences are expressed in a clear, learning-outcome-oriented manner, while remaining sufficiently flexible to support different education and training pathways.

All Skills Cards developed using the standard template described in Section ii) are listed in **Annex II**.

3.3. Level of abstraction and consistency across profiles

The Skills Cards are designed to operate at an intermediate level of abstraction. They are sufficiently detailed to support curriculum design, training planning and skills matching, while avoiding excessive specificity that would limit their applicability across contexts.

A harmonised structure is applied across all profiles to ensure:

- consistency in competence formulation;
- comparability of competence levels;
- alignment with EQF and ESCO principles;
- scalability for future updates and extensions.

This balance between detail and abstraction enables the Skills Cards to serve as a stable reference point while remaining adaptable to sectoral evolution and national implementation needs.

3.4. Use of Skills Cards by different stakeholders

The Skills Cards are conceived as **multi-purpose tools** that can be used by a wide range of stakeholders across the automotive-mobility ecosystem, supporting alignment between labour market needs, education and training provision, and policy frameworks.

- **Education and training providers** can use the Skills Cards to support the design, update and alignment of curricula, training programmes and learning outcomes with emerging sectoral needs. The structured presentation of competences and proficiency levels facilitates the development of modular training pathways and the alignment of educational offer with EQF and ESCO principles.
- **Companies and employers** can rely on the Skills Cards to identify new and emerging occupational profiles, support workforce planning, and design targeted reskilling and upskilling initiatives in response to digitalisation, sustainability and organisational transformation.
- **Policy-makers and public authorities** may use the Skills Cards as structured evidence to inform skills strategies, qualification frameworks and labour market policies, supporting a better understanding of emerging competence requirements at sectoral level.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- **European stakeholders and ESCO**-related bodies can use the Skills Cards as a reference for discussing the update or inclusion of occupational profiles and competences within European classification systems, contributing to improved comparability and transparency across countries.
- **Workers and learners** may benefit indirectly from the Skills Cards through improved transparency of competence requirements and clearer articulation of professional development pathways enabled by education and training providers, employers and guidance services.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

4. AREAS OF EXPERTISE, SKILLS CARDS AND COMPETENCES

This section provides an analytical overview of the first set of Skills Cards developed within the project (Release I). The analysis builds on the methodological framework described in Section i) and the standardised Skills Cards structure presented in Section ii).

The Skills Cards can be analysed through **complementary aggregation lenses**, reflecting different perspectives relevant to education and training, industry, policy-making and strategic planning. These lenses include qualification levels, competence distribution, areas of expertise and sectoral coverage. Together, they provide a comprehensive reading of how new and emerging occupational profiles are distributed across the automotive-mobility ecosystem.

4.1. Overview of Skills Cards coverage

Release I comprises **30 Skills Cards**, representing a first consolidated set of new and emerging occupational profiles for the automotive-mobility sector. All profiles have been developed using the common methodology and template agreed within the project, ensuring consistency and comparability across roles.

The Skills Cards cover a broad range of qualification levels and functional areas:

- **13 profiles** are primarily aligned with **EQF levels 3–5**, reflecting vocational and technician-oriented occupations.
- **17 profiles** are aligned with **EQF levels 6–7**, corresponding to higher education and expert-level roles.

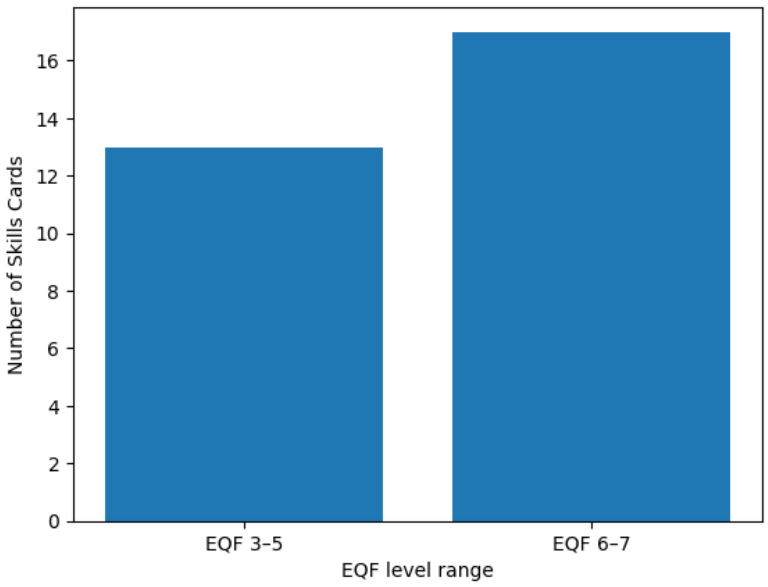

Figure 4 - Distribution of Skills Cards by EQF level (Release I)

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

This distribution in Figure 4 highlights the dual focus of the project on both operational profiles and higher-level specialist and managerial roles, reflecting the multi-layered nature of current sectoral transformations.

The full list of Skills Cards developed in Release I, including key contextual information and direct links to the profiles published on the project website, is provided in **Annex II**.

4.2. COMPETENCE DISTRIBUTION AND CATEGORIES

Across the 30 Skills Cards developed in Release I, a total of 337 competences have been identified, comprising:

- **211 skills**
- **126 knowledge elements**

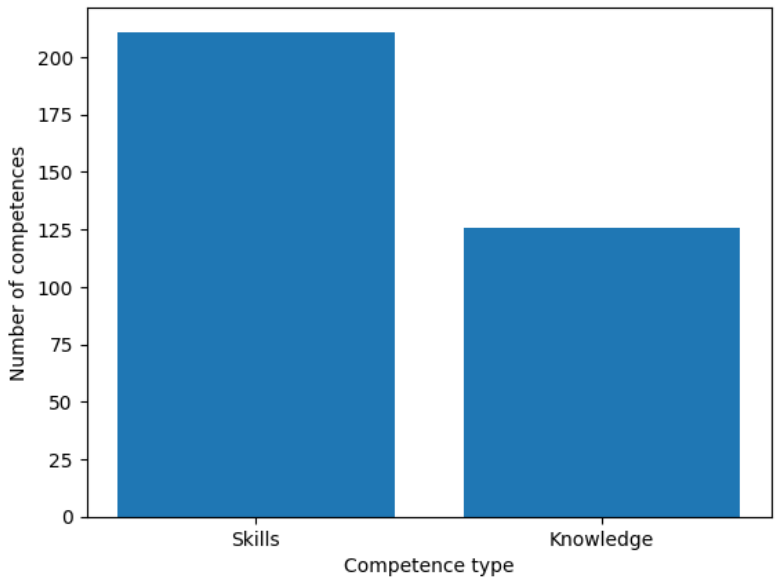

Figure 5 - Distribution of competences by type (skills vs knowledge)

This distribution (Figure 5) reflects the applied and practice-oriented nature of emerging occupational profiles, while maintaining a strong knowledge base to support adaptability, continuous learning and progression pathways.

Competences are organised into six main categories, as defined in the Skills Cards structure:

- Digital competences
- Green competences
- Transversal competences

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- Soft skills
- Sector-specific competences
- Other competences

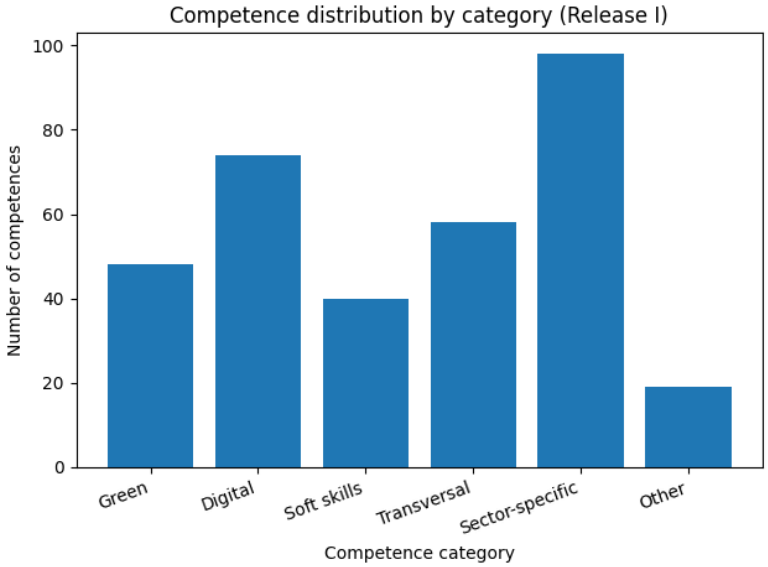

Figure 6 - Competence distribution by category

The distribution across these categories (see Figure 6) confirms the **hybrid character of emerging occupational profiles**, combining technical expertise with transversal, digital and sustainability-related capabilities.

4.3. AREAS OF EXPERTISE EMERGING FROM RELEASE I

For analytical and dissemination purposes, the Skills Cards developed in Release I have been clustered into **five main areas of expertise**. These areas are consistently used across project communication and stakeholder engagement activities and provide a thematic reading of emerging occupational profiles.

Area 1 – Smart Manufacturing & Automation

This area includes roles related to robotics, automation and advanced maintenance approaches. Profiles such as Robotics Specialist, Automation Engineer, Maintenance Technician and Predictive Maintenance Specialist/Engineer illustrate the increasing integration of automation technologies, data-driven maintenance and smart production systems.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

These profiles represent the "minds behind smart factories", contributing to safer, more efficient and more flexible production environments.

Area 2 – Digital Infrastructure & Connectivity

This area covers profiles focused on digital infrastructures, connectivity and data systems, including Digital Transformation Manager, IIoT Specialist, IT Systems Architect, Cloud and Edge Computing Expert, 5G Network Specialist and Data Analyst.

These roles underpin the digital backbone of the automotive ecosystem, enabling connected systems, data flows and platform-based integration across the value chain.

Area 3 – Safety, Security & Quality Assurance

Profiles in this area address functional safety, cybersecurity and compliance, including Automotive Cybersecurity Engineer and Manager and Functional Safety Engineer and Manager.

They act as "guardians of automotive trust", ensuring safety, reliability and resilience in increasingly connected and software-driven systems.

Area 4 – Sustainability, Energy & Environmental Impact

This area groups profiles driving the green transition of the sector, such as CO_2 and Environmental Concept Expert, Energy Transition Expert, Sustainability Analyst, Electric Vehicle Technician, Hydrogen Maintenance Mechanic, and related maintenance and mechatronics roles.

These professionals are central to decarbonisation, clean energy deployment and environmentally responsible mobility solutions.

Area 5 – Innovation, Skills & Workforce Transformation

This area includes profiles focused on innovation processes, AI-enabled business functions and workforce transformation, such as AI-Powered Procurement Analyst, Strategic Sourcing Specialist with AI, Procurement and Purchasing Specialists, Education Program Designer, Skills Transition Coordinator and Employment Transition Advisor.

These roles address organisational adaptability, skills transitions and the human dimension of technological change.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

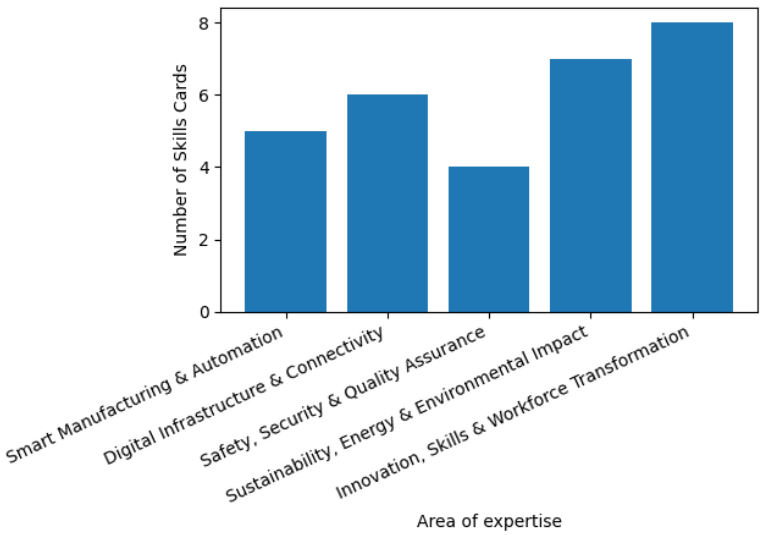

Figure 7 - Skills Cards clustered by areas of expertise (Release I)

The distribution in Figure 7 confirms that Release I addresses both technology-driven and human-centred dimensions of the automotive transition, with strong coverage of digitalisation, sustainability and workforce transformation.

4.4. Sector and sub-sector distribution of Skills Cards

In addition to thematic clustering, the Skills Cards can be analysed according to their **primary sectoral context** within the automotive-mobility value chain. While many profiles have cross-sectoral relevance, each Skills Card was assigned to a **primary sector or sub-sector** for analytical purposes.

Four main sectors are considered:

- Vehicle manufacturing
- Automotive components and systems
- Aftermarket and services
- Supporting industries

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

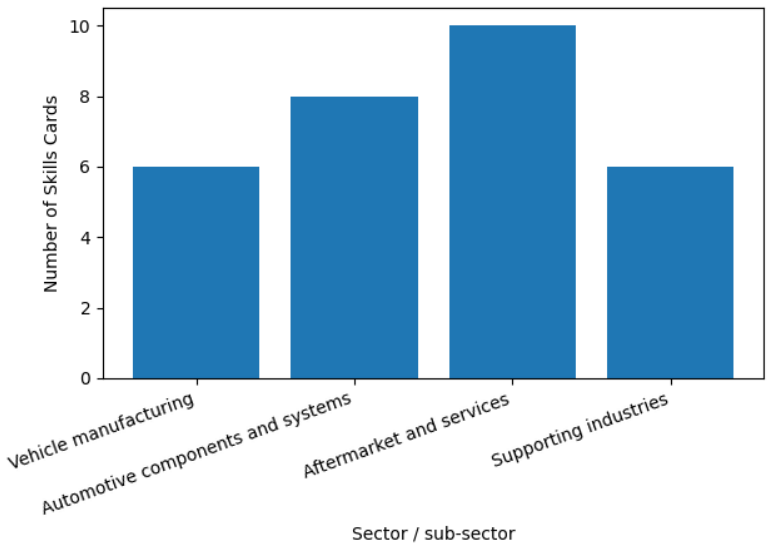

Figure 8 - Distribution of Skills Cards by sector and sub-sector (Release I). *While several occupational profiles have cross-sectoral relevance, each Skills Card was assigned to a primary sector or sub-sector for analytical purposes.*

The distribution of Skills Cards across these sectors (see Figure 8) demonstrates that Release I provides coverage across the full automotive ecosystem, from manufacturing and component development to maintenance, services and enabling industries.

4.5. CROSS-CUTTING COMPETENCE PATTERNS AND TRENDS

Beyond individual areas of expertise and sectors, several **cross-cutting competence patterns** emerge across the Skills Cards:

- a strong digital backbone, integrating data, connectivity and digital tools across most profiles;
- a pervasive green dimension, embedding sustainability considerations beyond dedicated environmental roles;
- a consistent presence of transversal competences, such as problem-solving, communication, coordination and continuous improvement;
- sector-specific and safety-related competences, reflecting regulatory, safety-critical and domain-specific requirements.

These patterns confirm the emergence of hybrid occupational profiles, combining technical depth with transversal and sustainability-oriented competences.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

4.6. Implications for future Skills Cards development

The analysis of coverage, competences, areas of expertise and sectoral distribution provides a robust foundation for prioritising future Skills Cards. It highlights both well-covered domains and areas where further refinement or expansion may be required, in line with evolving sectoral needs identified in WP2 Skills Intelligence.

This analytical overview therefore serves as a bridge to the forward-looking perspective presented in the next section of the deliverable.

As a first release, the current set of Skills Cards reflects initial prioritisation choices and will be further refined and expanded in subsequent project phases.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

5. LOOKING AHEAD

This section outlines how the findings of **WP2 Sectoral Skills Intelligence (D2.2)**[3] inform the **future development and refinement of Skills Cards** within the project. As such, it does not introduce new sectoral analyses, but translates the evidence and priorities identified in WP2 into implications for the next iterations of occupational profile definition.

As a **first release**, the current set of Skills Cards represents an initial operationalisation of WP2 results. Future releases will progressively build on this foundation, responding to updated skills intelligence, stakeholder feedback and European policy developments.

5.1. Implications of WP2 findings for future Skills Cards development

D2.2 identifies a set of major drivers shaping skills demand in the automotive-mobility ecosystem, including accelerating digitalisation, the green and energy transition, increasing system complexity, and the need for continuous workforce adaptation.

In the context of Task 3.3, these findings imply that future Skills Cards should increasingly:

- reflect the convergence of digital, green and safety-related competences within individual occupational profiles;
- address roles operating across value-chain interfaces, rather than within single functional silos;
- support clearer progression pathways between vocational and higher education profiles, in line with EQF;
- capture emerging or evolving profiles not yet fully represented in existing occupational classifications, including ESCO.

These implications directly derive from the sectoral needs and gaps identified in WP2 and guide the prioritisation of future Skills Cards.

5.2. Refinement and expansion of occupational profiles

Building on the areas of expertise and sectoral coverage presented in Section iii), future iterations of Skills Cards may focus on:

[3] https://project-trireme.eu/Media/Deliverables/25/Deliverables_25_20251105_121537.pdf

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- **Further refinement of existing profiles**, enhancing clarity of competence descriptions and proficiency levels based on validation feedback;
- **Additional specialisation within selected areas of expertise**, where the Skills Intelligence (WP2) highlights rapid technological or regulatory change (e.g. AI and digital infrastructures, sustainability and energy transition);
- **Development of new hybrid profiles**, explicitly addressing combinations of technological, organisational and human-centred competences highlighted in WP2 Skills Intelligence.

These refinements aim to strengthen the usability and relevance of Skills Cards across education, training and labour market contexts.

5.3. Contribution to ESCO and European frameworks

As outlined in D2.2, the project seeks to contribute to European-level skills intelligence and classification systems. The Skills Cards developed under Task 3.3 provide structured, competence-based inputs that can support dialogue with the ESCO team, particularly regarding:

- emerging occupational profiles not yet formalised in ESCO;
- updated competence formulations reflecting sectoral transformation;
- improved alignment between occupational profiles and EQF levels.

In this context, it is particularly relevant that ESCO periodically collects stakeholder input in preparation for its classification updates. The upcoming ESCO update cycle, with stakeholder inputs expected in March 2026, provides a timely opportunity for the project to share its structured outputs and evidence-based proposals.

The Skills Cards developed within TRIREME, grounded in WP2 Sectoral Skills Intelligence and aligned with EQF and competence-based structuring principles, constitute a concrete and transparent contribution to this process. While inclusion decisions remain within the remit of the ESCO governance framework, the project's outputs are designed to facilitate informed dialogue and potential integration into future ESCO updates.

Future releases of Skills Cards will further consolidate these contributions, integrating feedback from European stakeholders and supporting potential updates to ESCO definitions.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

5.4. ITERATIVE DEVELOPMENT AND STAKEHOLDER VALIDATION

In line with the continuous intelligence approach promoted in WP2, the development of Skills Cards follows an **iterative logic**. Future updates will integrate feedback from:

- education and training providers,
- companies and employers,
- policy-makers and public authorities,
- European stakeholders involved in skills and qualification frameworks.

This feedback-driven approach ensures that Skills Cards remain responsive to evolving sectoral needs while maintaining coherence and comparability.

5.5. PREPARING THE NEXT RELEASE OF SKILLS CARDS

The analytical results presented in Section 2 and the implications derived from WP2 Skills Intelligence provide a clear basis for the next release of Skills Cards. Future work will focus on:

- prioritising new or refined profiles in line with WP2 Sectoral Intelligence evidence;
- strengthening alignment with curricula, training pathways and qualifications;
- enhancing the contribution of Skills Cards to European skills intelligence instruments.

Through this process, the project aims to progressively deliver a robust and scalable framework for defining new and emerging occupational profiles in the automotive-mobility sector.

To ensure sustainability beyond Release I, this integration process is conceived as a recurring and systematic procedure. The same mapping and formalisation approach will be applied in future releases of Skills Cards, including the development of new occupational profiles and updates to existing ones. By repeating this process over time, the project ensures that Skills Cards remain aligned with the evolving Skills Hub competence matrix, while preserving continuity, consistency and long-term usability of the project outputs.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ANNEX I

Skills cards template

<name of the job profile >

<description, max 100 words>

<ESCO Mapping> - <link to ESCO (European Skills, Competences, Qualifications and Occupations)>

ID	NAME	Concept URI
ID of concept for job role in ESCO	Name of job role	URI (at the bottom of the web page)
ID of job role in ESCO	Name of job role	URI

Context

EQF Levels	3 - 8
Departments	Production and Maintenance Logistics Quality

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

	Purchasing HR Finance Sales R&D (Research and Development) Construction Intellectual, Legal Recycling HSE (Health, Safety and Environmental) IT & Digital

Green Competences

ID	Name	Type	Description	Level	ESCO
	name	Skill or knowledge	- General description of the skill set for the job role - Description in the context of the job role – activities, tasks on a specific level	1/2/3/	URI
			-		
			-		

Digital Competences

ID	Name	Type	Description	Level	ESCO
	name	Skill or knowledge	- General description of the skill set for the job role - Description in the context of the job role– activities, tasks on a specific level	1/2/3/	URI
			-		
			-		

Soft Competences

ID	Name	Type	Description	Level	ESCO
	name	Skill or knowledge	- General description of the skill set for the job role - Description in the context of the job role – activities, tasks on a specific level	1/2/3/	URI
			-		

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

			-		

Transversal Competences

ID	Name	Type	Description/Context	Level	ESCO
	name	Skill or knowledge	- General description of the skill set for the job role - Description in the context of the job role – activities, tasks on a specific level	1/2/3/	URI
			-		
			-		

Sector Specific Competences

ID	Name	Type	Description/Context	Level	ESCO
	name	Skill or knowledge	- General description of the skill set for the job role - Description in the context of the job role – activities, tasks on a specific level	1/2/3/	URI
			-		
			-		

Other

ID	Name	Type	Description	Level	ESCO
	name	Skill or knowledge	- General description of the skill set for the job role - Description in the context of the job role – activities, tasks on a specific level	1/2/3/	URI
			-		
			-		

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

ANNEX II

This annex provides an overview of the Skills Cards developed within Task 3.3 (Release I).

For each occupational profile, the table presents the indicative EQF level(s), the corresponding area of expertise (as defined in Section 3.3), the primary sector or sub-sector (as defined in Section 3.4), and a direct link to the Skills Cards published on the project website.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link
1	Robotics Specialist	6	Smart Manufacturing & Automation	Vehicle manufacturing	https://project-trireme.eu/Media/SkillCard/27/SkillCard_27_SKILLCARD_20251022_74037.pdf
2	Automation Engineer	6	Smart Manufacturing & Automation	Vehicle manufacturing	https://project-trireme.eu/Media/SkillCard/28/SkillCard_28_SKILLCARD_20251022_74159.pdf
3	Maintenance Technician	4–5	Smart Manufacturing & Automation	Aftermarket and services	https://project-trireme.eu/Media/SkillCard/30/SkillCard_30_SKILLCARD_20251022_74833.pdf
4	Predictive Maintenance Specialist	5–6	Smart Manufacturing & Automation	Aftermarket and services	https://project-trireme.eu/Media/SkillCard/30/SkillCard_30_SKILLCARD_20251022_74833.pdf

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link
5	Predictive Maintenance Engineer	6	Smart Manufacturing & Automation	Automotive components and systems	https://project-trireme.eu/Media/SkillCard/31/SkillCard_31_SKILLCARD_20251022_74317.pdf
6	Digital Transformation Manager	7	Digital Infrastructure & Connectivity	Supporting industries	https://project-trireme.eu/Media/SkillCard/32/SkillCard_32_SKILLCARD_20251022_7443.pdf
7	IIoT Specialist	6	Digital Infrastructure & Connectivity	Automotive components and systems	https://project-trireme.eu/Media/SkillCard/33/SkillCard_33_SKILLCARD_20251022_74918.pdf
8	IT Systems Architect	7	Digital Infrastructure & Connectivity	Supporting industries	https://project-trireme.eu/Media/SkillCard/34/SkillCard_34_SKILLCARD_20251022_74459.pdf
9	Cloud and Edge Computing Expert	6–7	Digital Infrastructure & Connectivity	Supporting industries	https://project-trireme.eu/Media/SkillCard/35/SkillCard_35_SKILLCARD_20251022_7507.pdf
10	5G Network Specialist	6	Digital Infrastructure & Connectivity	Automotive components and systems	https://project-trireme.eu/Media/SkillCard/36/SkillCard_36_SKILLCARD_20251022_75038.pdf

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link
11	Data Analyst	6	Digital Infrastructure & Connectivity	Supporting industries	https://project-trireme.eu/Media/SkillCard/37/SkillCard_37_SKILLCARD_20251023_72923.pdf
12	AI-Powered Procurement Analyst	6	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/49/SkillCard_49_SKILLCARD_20251022_74548.pdf
13	Strategic Sourcing Specialist with AI	6	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/50/SkillCard_50_SKILLCARD_20251022_74640.pdf
14	Procurement Specialist	5–6	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/51/SkillCard_51_SKILLCARD_20251023_7350.pdf
15	Purchasing Specialist	5	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/52/SkillCard_52_SKILLCARD_20251023_74319.pdf

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link
16	CO_2 and Environmental Concept Expert	6–7	Sustainability, Energy & Environmental Impact	Supporting industries	https://project-trireme.eu/Media/SkillCard/38/SkillCard_38_SKILLCARD_20251023_73547.pdf
17	Energy Transition Expert	7	Sustainability, Energy & Environmental Impact	Supporting industries	https://project-trireme.eu/Media/SkillCard/39/SkillCard_39_SKILLCARD_20251023_73650.pdf
18	Sustainability Analyst	6	Sustainability, Energy & Environmental Impact	Supporting industries	https://project-trireme.eu/Media/SkillCard/40/SkillCard_40_SKILLCARD_20251023_73724.pdf
19	Electric Vehicle Technician	4–5	Sustainability, Energy & Environmental Impact	Aftermarket and services	https://project-trireme.eu/Media/SkillCard/41/SkillCard_41_SKILLCARD_20251023_73031.pdf
20	Hydrogen Maintenance Mechanic	4–5	Sustainability, Energy & Environmental Impact	Aftermarket and services	https://project-trireme.eu/Media/SkillCard/42/SkillCard_42_SKILLCARD_20251023_74238.pdf

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link
21	Automotive Mechatronics Specialist	5–6	Sustainability, Energy & Environmental Impact	Automotive components and systems	https://project-trireme.eu/Media/SkillCard/43/SkillCard_43_SKILLCARD_20251023_73124.pdf
22	Automotive Maintenance Specialist	4–5	Sustainability, Energy & Environmental Impact	Aftermarket and services	https://project-trireme.eu/Media/SkillCard/44/SkillCard_44_SKILLCARD_20251023_73333.pdf
23	Automotive Cybersecurity Engineer	6	Safety, Security & Quality Assurance	Automotive components and systems	https://project-trireme.eu/Media/SkillCard/45/SkillCard_45_SKILLCARD_20251023_73841.pdf
24	Cybersecurity Manager	7	Safety, Security & Quality Assurance	Supporting industries	https://project-trireme.eu/Media/SkillCard/46/SkillCard_46_SKILLCARD_20251023_75023.pdf
25	Functional Safety Engineer	6	Safety, Security & Quality Assurance	Automotive components and systems	https://project-trireme.eu/Media/SkillCard/47/SkillCard_47_SKILLCARD_20251023_73959.pdf

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link
26	Functional Safety Manager	7	Safety, Security & Quality Assurance	Supporting industries	https://project-trireme.eu/Media/SkillCard/48/SkillCard_48_SKILLCARD_20251023_74024.pdf
27	Skills Transition Coordinator	6	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/55/SkillCard_55_SKILLCARD_20251023_73414.pdf
28	Employment Transition Advisor	6	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/56/SkillCard_56_SKILLCARD_20251023_74050.pdf
29	Education Program Designer	7	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/54/SkillCard_54_SKILLCARD_20251023_74115.pdf
30	ISO 560xx Innovation Agent	6	Innovation, Skills & Workforce Transformation	Supporting industries	https://project-trireme.eu/Media/SkillCard/53/SkillCard_53_SKILLCARD_20251023_73810.pdf

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Nr.	Occupational profile	EQF level(s)	Area of expertise	Sector / sub-sector	Link

While several occupational profiles have cross-sectoral relevance, each Skills Card was assigned to a primary area of expertise and a primary sector/sub-sector for analytical purposes.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.