



blockchain skills for Europe

D7.1 Blueprint for the establishment of a European VET providers Initiative on Blockchain

October/2024

Co-funded by the
Erasmus+ Programme
of the European Union



PROJECT DETAILS

Project acronym: CHAISE
Project name: A Blueprint for Sectoral Cooperation on Blockchain Skill Development
Project code: 621646-EPP-1-2020-1-FR-EPPKA2-SSA-B

Document Information

Document ID name: CHAISE_WP7_T1
Document title: D7.1 – Blueprint for the establishment of a European VET providers Initiative on Blockchain
Type:
Date of Delivery: 31/10/2024
WP Leader: DIGITAL EUROPE
Task Leader: YPEPTH
Implementation Partner:
Dissemination level: Public / Restricted / Confidential

DOCUMENT HISTORY

Versions	Date	Changes	Type of change	Delivered by
Version 1.0	June 2024	Initial document	-	ECQA
Version 2.0	October 2024	Revised Version	Integrate ASA Updates	ECQA
Version 3.0	October 2024	Final Version	Integrate ASA Task Force Application Acknowledgement	ECQA

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Abbreviations

AF	Application Form
D	Deliverable
DG	Directorate General
EACEA	Education, Audiovisual and Culture Executive Agency
EQF	European Qualification Framework
EC	European Commission
EU	European Union
D	Deliverable
ICT	Information and Communications Technology
KPI	Key Performance Indicator
M	Month
MOOC	Massive Open Online Course
OER	Open Educational Resources
PM	Project Management
PMT	Project Management Team
PT	Points
QA	Quality Assurance
SC	Steering Committee
SME	Small and Medium-sized Enterprise
SSA	Sector Skill Alliance
T	Task
TL	Task Leader
VET	Vocational Education and Training
WP	Work Package
WPL	Work Package Leader

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Blueprint for the establishment of a European VET providers Initiative on Blockchain

1 Overview

1.1 Introduction

CHAISE has established a Europe-wide reference for a skill set characterizing three different modern job profiles centered around the blockchain: The Blockchain Architect, the Blockchain Developer, and the Blockchain Manager. CHAISE has also released a set of training materials that can be used by training and education institutions for teaching, or for deriving their own material from them. In order to foster the actual deployment of these results by VET providers in various industrial sectors that are undergoing a transformation through the blockchain and other DLT's, this deliverable is about the initial high-impact blueprint for a VET providers initiative in the European mobility ecosystem. More specifically, CHAISE has succeeded in endorsing a task force creation request under the ASA (Automotive Skills Alliance, <https://automotive-skills-alliance.eu/>).

1.2 Objectives and Relevance

CHAISE Skill Set Adoption: Foster the adoption of the CHAISE Skill Set and Training Materials at VET providers at a European scale.

European VET Excellence: Establishment of a reference deployment of blockchain VET training and certification in one of the leading European industry sectors (automotive). An objective linked to this one is the creation of a European Center of Vocational Excellence (CoVE) in Blockchain.

Blockchain VET Community: Creation of an initial community of VET organizations actively deploying CHAISE results, with the objective of growing this community throughout Europe and across different industry sectors.

The high **relevance** of the blockchain for the automotive industry sector, and – more generally – the future mobility ecosystem is witnessed by the international **MOBI initiative** (<https://dlt.mobi/>).

2 The Automotive Skills Alliance

2.1 Overview

The **Automotive Skills Alliance (ASA)** is a European initiative to address the skills gap and workforce transition in the automotive industry, particularly in the face of rapid technological changes and the shift towards green and digital mobility. Launched in 2020 under the European Commission's ****Pact for Skills****, the ASA brings together key stakeholders from the automotive ecosystem—industry, trade unions, education and training providers, and regional authorities—to ensure that the automotive workforce is equipped with the skills necessary for the future of mobility.



Figure 1: ASA in Industrial Ecosystems (Source: ASA Website)

Key objectives of the ASA:

1. **Reskilling and Upskilling:** The ASA focuses on providing training and educational programs to ****reskill**** (retrain workers in new skills) and ****upskill**** (enhance existing skills) workers in the automotive sector, enabling them to adapt to new technologies like ****electrification****, ****digitalization****, ****automation****, and ****smart mobility****.
2. **Supporting the Green Transition:** With Europe's commitment to becoming climate-neutral by 2050 under the ****European Green Deal****, the ASA plays a crucial role in preparing the

automotive workforce for a more sustainable future. This includes skills for producing electric vehicles (EVs), managing battery production, and integrating renewable energy into automotive production processes.

3. **Collaboration Across Stakeholders:** The initiative encourages ****multi-stakeholder partnerships****, including automotive manufacturers, suppliers, training organizations, and public bodies. By working together, they aim to align workforce development strategies with industry needs, regional realities, and educational capacities.
4. **Digital Skills Development:** Digitalization is transforming the automotive sector through technologies like autonomous driving, connected vehicles, and Industry 4.0 (smart manufacturing). The ASA promotes the development of ****digital competencies**** within the workforce to handle new software, data management, cybersecurity, and artificial intelligence (AI).
5. **Regional and National Initiatives:** The ASA supports regions and local communities with high automotive industry concentrations, particularly those affected by the structural changes caused by the transition from traditional internal combustion engines to electric vehicles. It ensures that these regions can adapt to the new realities of the industry.

Structure and Activities:

- **Alliance members** include automotive companies, vocational training providers, national and regional public authorities, and trade unions.
- The **European Commission** provides support and funding, particularly through the ****Pact for Skills**** and other initiatives related to the EU's ****Just Transition**** and ****Green Deal****.
- The ASA promotes training programs, apprenticeships, and skill certification schemes across Europe, tailored to both the current workforce and future generations of employees entering the sector.

By aligning the automotive industry's transformation with a strong focus on workforce development, the ASA ensures that Europe remains competitive in the global automotive market while achieving its sustainability goals.

2.2 ASA Topic Committees and Working Groups

The Automotive Skills Alliance is composed of four individual **Topic Committees** which the ASA Office coordinates:

1. **Technology** – The Technology Committee prioritizes Repair and Maintenance, Batteries, Hydrogen, Digitalisation, Electronics Packaging, Software/System Development, Life Cycle Assessment (LCA), and Environmental Footprint. With a focus on extending device lifespan and minimizing electronic waste, the committee explores sustainable energy solutions, integrates

digital technologies, and evaluates environmental impacts for a holistic and sustainable technological approach.

2. Education – The Education Committee focuses on advancing learning through effective programs, training, and the promotion of both initial and life-long learning. By prioritizing continuous education, the committee aims to equip individuals with the skills needed to thrive in an ever-changing world.
3. Social Aspects – The Social Aspects Committee prioritizes diversity, attractiveness, and key social elements. Committed to inclusivity, it actively promotes diversity and works towards enhancing social appeal and engagement. The committee focuses on creating a harmonious and inclusive society that values diversity for a vibrant and enriching social environment.
4. Regional Dimension – The Regional Dimension Committee prioritizes regional collaboration and effective implementation, fostering collective efforts to address shared challenges. Emphasizing collaborative strategies, the committee aims to create a resilient regional framework for sustainable solutions benefiting local communities.

Topic Committees are responsible for evaluating, steering, and recommending provisions to specific Groups which are present under each Committee area, thus steering the ASA activities in specific areas. The structure of Groups and Committees combines, in principle, a horizontal and vertical approach. Groups are vertical and ASA member types groups represent a horizontal perspective (involving industry, education/training providers, social partners, regions, and more). Each group has a clearly defined working plan, and may be permanent (working group) or temporary (task force). Groups may use the guidance of developed methodology to select various activities which may be executed to improve the European Skills Intelligence.

Members of ASA participate in groups or may establish various groups. Topic Committees recommend and steer the activities of the groups. Each group works on specific selected activities in the context of the European Skills Intelligence.

The figure below shows the ASA Working Group structure.

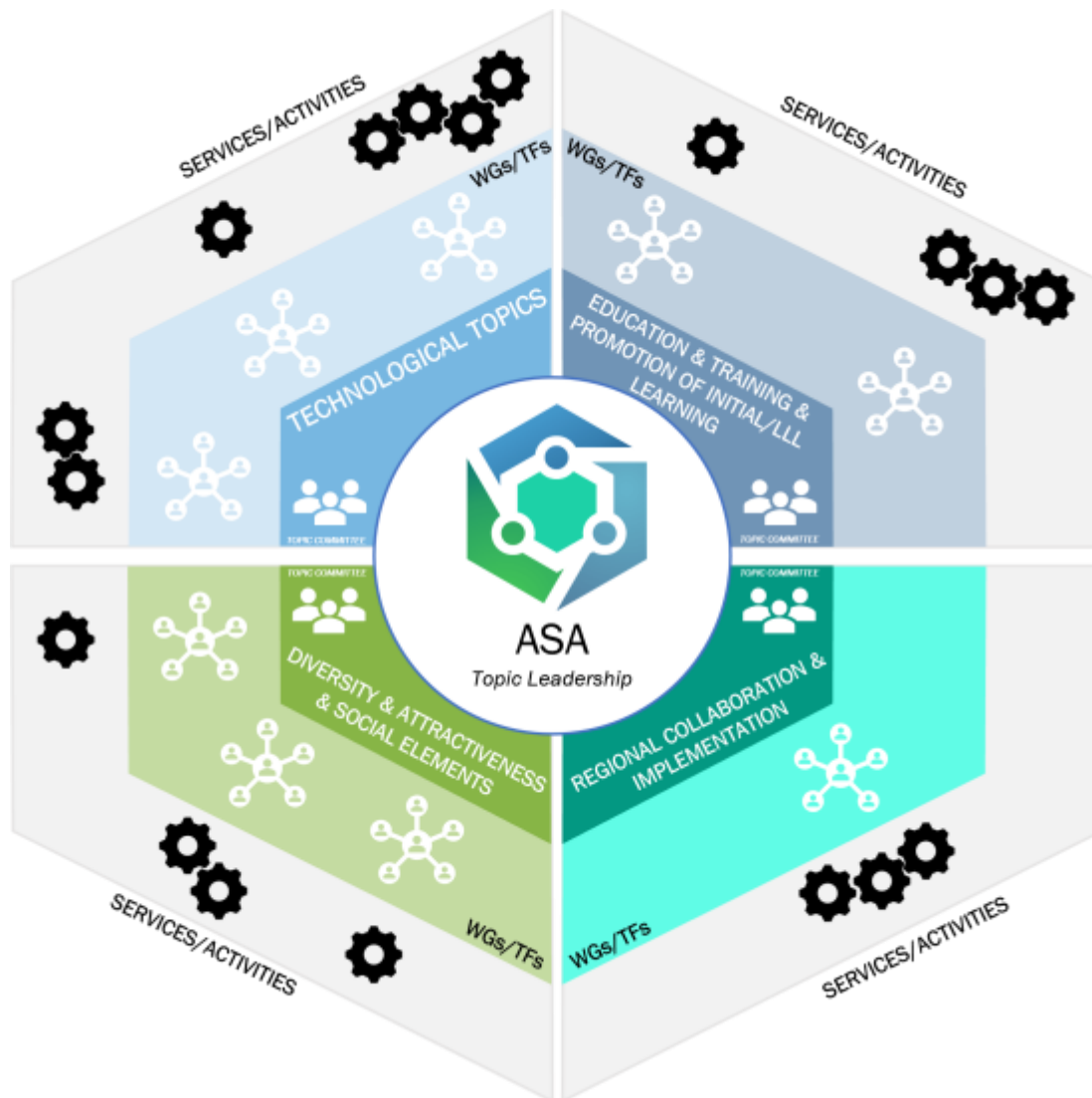


Figure 2: The ASA Working Group Structure

The **Topic Leadership** is the central guiding force within ASA responsible for identifying, prioritising, and setting the direction for key topics and areas of focus within the automotive sector. This group comprises senior members and experts from ASA who deeply understand the industry's challenges, trends, and future directions. The Topic Leadership stands as the central pillar of the Automotive Skills Alliance (ASA). Comprising seasoned professionals and experts from within the ASA community, Topic Leadership is equipped with the knowledge, experience, and vision to steer the alliance even without auxiliary groups like the Topic Committee.

2.3 The ASA Governance Structure

The **ACEA**, or European Automobile Manufacturers' Association (from the French Association des Constructeurs Européens d'Automobiles), is an industry group representing Europe's major car, truck,

van, and bus manufacturers. Founded in 1991, ACEA plays a significant role in shaping automotive policy in Europe, collaborating with EU institutions, regulators, and stakeholders to advocate for the industry's interests. Its primary objectives are to ensure the competitiveness of the European automotive sector, promote sustainable mobility, and address issues such as environmental standards, technological innovation, safety, and trade.

The ACEA works closely with European Union policymakers to address challenges like CO₂ emissions, electric vehicle infrastructure, automated driving, and connectivity. It also produces industry data, reports, and position papers to inform public discussions and support decision-making within the sector.

The **CLEPA**, the European Association of Automotive Suppliers (Comité de Liaison Européen des Fabricants d'Équipements et de Pièces Automobiles), represents the interests of European automotive suppliers, which produce parts, systems, and materials for vehicles. Founded in 1959, CLEPA collaborates closely with policymakers, industry stakeholders, and institutions within the European Union to advance and protect the interests of suppliers in the automotive supply chain.

The organization focuses on key industry issues such as technological innovation, sustainability, environmental standards, vehicle safety, and trade policies. CLEPA plays a significant role in promoting the development of cleaner and more efficient automotive technologies, including electric vehicles, automated driving systems, and connected car technologies. By working with the European Commission and other regulatory bodies, CLEPA aims to ensure the long-term competitiveness of automotive suppliers in Europe and help guide the industry through its rapid transformation toward more sustainable and digitally advanced solutions.

With these two high-level political organizations in their driving seat, the ASA can be considered *the* European structure to drive the development of Digital Skills Development programs like CHAISE forward on a European level.

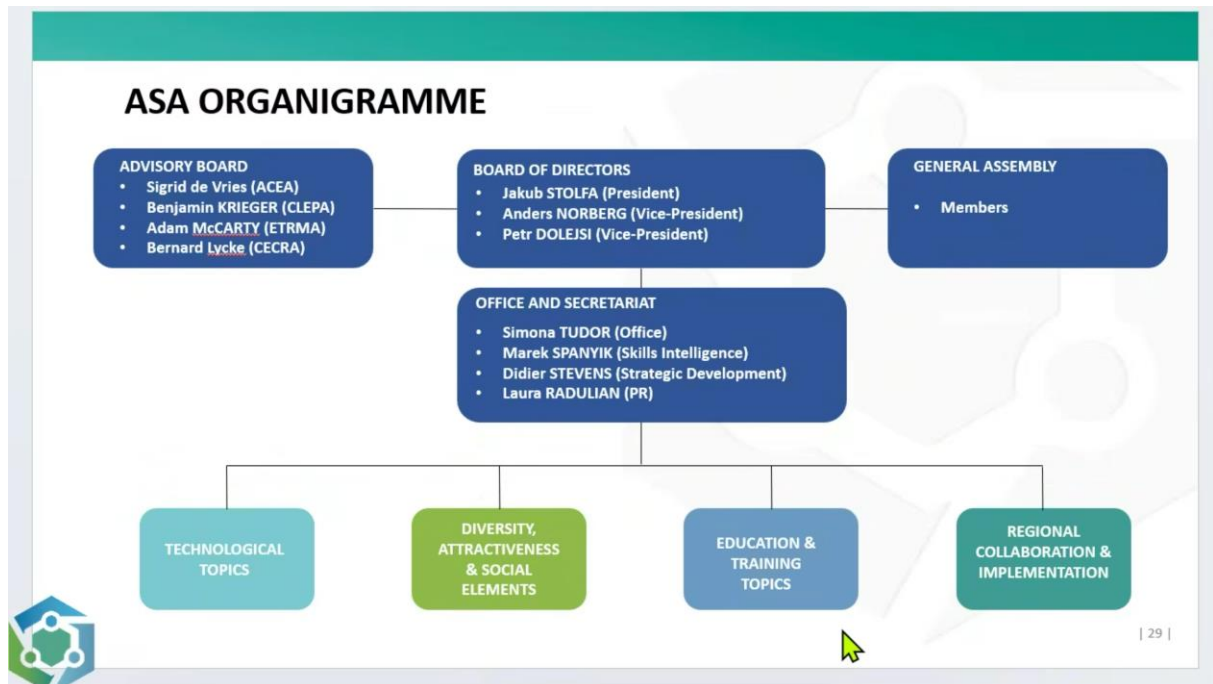


Figure 3: The ASA Organigramme

2.4 The ASA Knowledge and Skills Hub

The Automotive Skills Alliance has goals to boost the re-skilling and up-skilling within the automotive sector which is facilitated by the wide network of partners who are active in this field and use different tools which are offered to the rest of the partnership or publicly to the sectoral players. Following tools are recommended and used by the Automotive Skills Alliance.

There is the opportunity to integrate the CHAISE Skills Set and Training Materials in this Open Skills Hub in order to further augment the impact and sustainability of key CHAISE results.

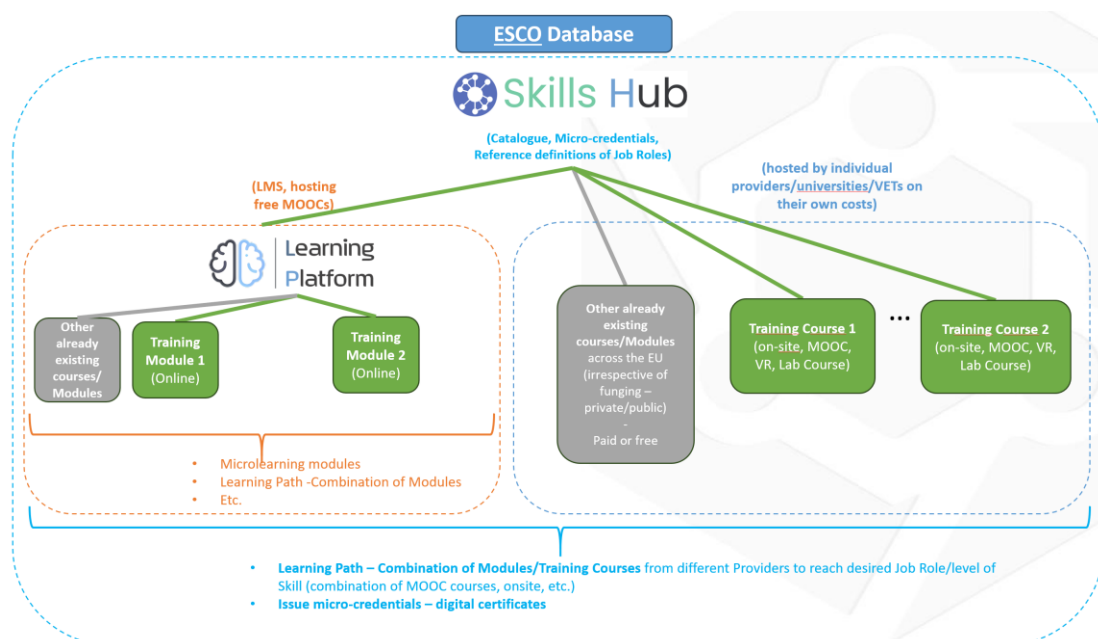


Figure 4: The ASA Knowledge/Skills Hub Structure

3 ASA - CHAISE Partnership Proposal

3.1 New ASA CHAISE Working Group

Aligned with the model of existing successful ASA Working Groups, this Blueprint proposes the creation of a new ASA CHAISE Working Group under the ASA Topic Committees **Technology** and **Education**.

Mission: establishing an ecosystem of European VET institutions proposing continuous qualification (i.e., training and certification) based on the CHAISE curriculum and Skill Card

Objectives:

1. Promotion of CHAISE outcomes to the CHAISE ecosystem of both automotive and non-automotive members and partners.
2. Creation and animation of a group of European VETs that want to join forces to propose and DLT and Blockchain-related qualification programs in various European member states and regions.
3. Creation of a EUROPEAN CENTER OF VOCATIONAL EXCELLENCE (COVE) in DLT and Blockchain Technologies through submitting a proposal to the Erasmus+ program committee.
4. Involvement of **at least 10 of the currently more than 40 VET ASA members all over Europe**.

The ASA Working Groups initiation and cultivation methodology can be divided into the following steps. The process of **establishing a Working Group (WG)** within the Automotive Skills Alliance (ASA) begins with the (Source: Flamenco D3.1 Collaboration Structure and Tools):

A) High-Level Perspective

- 1) Topic Leadership selection, which the ASA office spearheads. They identify and select pertinent topics that warrant the creation of a new WG, using the newly defined structure as a blueprint. Once a topic is chosen, the proposal is forwarded to the Topic Committee, a volunteer-driven body, for a thorough review.
- 2) The committee then evaluates the proposal's alignment with ASA's objectives and provides recommendations.
- 3) Based on this feedback, the Topic Leadership takes the next step of inviting specific ASA members (or the ASA members may request to be part of the topic committee based on the topics listings in the ASA) to be part of the WG. While the Topic Leadership, led by the ASA office, provides direction and oversight, the Topic Committee plays a crucial role in offering insights feedback, and ensuring the WG's alignment with the broader goals of ASA. This collaborative approach aims to establish result-oriented WGs that contribute significantly to the automotive sector.

Additionally, the committee is responsible for reviewing proposals for creating new working groups, ensuring that they align with ASA's objectives and bring value to its members.

B) Operational Perspective

- 1) Registration Process: registration into WGs begins with registration into the ASA (in case the interested entity is not already within the ASA). During the registration, the entity selects a set of topics of interest – this embraces a diverse range of participants. Registration is designed to be user-friendly, eliminating entry barriers and facilitating dynamic exchanges of insights - "JOIN – AUTOMOTIVE SKILLS ALLIANCE (automotive-skillsalliance.eu)". A registered entity may be a Legal Entity or Natural Person. As mentioned, the registered entity may be chosen into WGs (or WG topic committee) or requested through the ASA office. The registered entity also gains access to a dedicated Members Area on the website where the events calendar and access to Cloud are accessible – this also helps to gain the entity's interest in joining various WGs.
- 2) Initiation of the WG: initiation of the WG consists of the following steps (as per the defined structure in section 1.2.2) serving as a new WG definition, which is to be evaluated by the Topic Committees and approval outcome is made by the Topic Leadership:

- Selection of ASA Members: initiator/s of the WG form the WG from ASA members. One contact point of the WG (or leader) is recommended. WG then formulates objectives; this focus is then confirmed in the next step;
 - Confirming focus: identifying the working group's goals and specific working plan (roadmap) for a set period with deadlines, measurable objectives, and KPIs coherent with the ASA objectives (PfS charter). The Workplan contains a selection of skills intelligence activities (or services) which will be achieved within the set timeframe. This initial working plan also assesses the group and may be continuously updated (reporting and result collection further elaborated in section 1.4 and deliverable D3.2).
 - Identifying Target Group Entities: working groups identify and select Member Types Groups (MTGs) with whom to collaborate on the goals and to whom to propagate the results of the WG (work with MTGs is described in point 3).
 - Organisation Structure: the members' frequency of meetings and engagement in a selected organisational structure is confirmed amongst the group. The recommended frequency is quarterly online or hybrid meetings.
- 3) Engaging Member Type Groups (MTG) and WG Engagement: engaging a more comprehensive network of partners involving collaboration with diverse stakeholders beyond the core working group is essential. This approach enables to tap into a wide variety of perspectives, expertise, and resources that contribute to the success of ASA. Expanding the collaborative circle to include a broader array of partners holds significant benefits. The depth and breadth of insights and contributions are amplified by involving entities such as industry associations, educational institutions, governmental bodies, and relevant organisations. This enriches collaborative initiatives and strengthens the overall impact and relevance of outcomes. Engaging Member Type Groups (MTGs) enriches collaboration with multi-faceted perspectives and expertise.

Communication and Collaboration Framework among WGs: these essential elements underpin the essence of skill development and innovation in the ASA WGs. It is vital to set collaborative ways of concrete results among WGs and to find synergies, which is also included in the definition of the WG.

3.2 Benefits

Benefits for ASA:

- New relevant Working Group – enlarge of the network
- New topic in the ASA for members and community
- New set of courses offered in the catalogue – Skills Hub
- Possible future way of certificates using blockchain technology

Benefits for CHAISE:

- Direct access to the **Automotive-Mobility skills network**
- Strong linked to the **Pact for Skills**
- Opportunity to pilot courses in wider community
- Opportunity to adapt solution to the concrete sector and its needs
- Opportunity to pilot blockchain certifications all over Europe

3.3 Task Force Initiative for ASA Work Group Creation

As pointed out in section 3.1, the ASA WG Creation Process requires the involvement and agreement of high-level members in the ASA governance structure. For topics of particularly high relevance for the European automotive industry sector, and – more generally – the mobility ecosystem, the ASA foresees the creation of a **Task Force** facilitating this WG creation process.

CHAISE has successfully submitted an ASA Task Force application to the ASA. This application, including the acknowledgement of consideration is contained in the Annex to this deliverable. This achievement can be considered a huge step towards the realization of a sustainable high-level and high-impact Blueprint of European VET providers for blockchain in one of the most important industrial ecosystems of Europe. The timespan required from the Task Force creation to setting up of the new ASA Workgroup can be estimated to about one year, according to the ASA.

Annex

Working Group Initiation Application

Methodology may be found here: [D3.1 Collaboration Structure and Tools \(project-flamenco.eu\)](https://project-flamenco.eu/D3.1%20Collaboration%20Structure%20and%20Tools)

- 1) **Name:** *Blockchain Skills for Mobility*
- 2) **Topic Committee:** (Technology/Education/Social Aspects/Regional Dimension)
- 3) **Status:** *Permanent (Working Group)/Temporary (Task Force)*

Timeplan:

Month/Dates	Jan	Feb	March	April	May	June	July
<i>Week/s:</i>	3	6	10	14, 18	20		
Sending out invitations to ASA VET's	▼						
First TF Meeting		▼					
Second TF Meeting			▼				
Third TF Meeting				▼			
WG Proposal Draft				▼			
WG Proposal Review & Agreement					▼		
WG Proposal Submission to ASA					▼		
ASA Decision							▼

TIMELINE FOR THE BLOCKCHAIN SKILLS FOR MOBILITY TASK FORCE

4) Focus, Goals, and Mission:

- *Establish a Blockchain Skills for Mobility Work Group in ASA*
- *The WG's mission is to establish and maintain a skills referential for Blockchain and DLT Skills in the Mobility Ecosystem*
- *This shall be achieved on the basis of the CHAISE Skill Alliance project results, and in close collaboration and alignment with the European Blockchain Skill Cooperation Network (EBSCN)*
- *The ultimate objective is to become the skill development and promotion partner of the MOBI Web3 consortium which creates standards for trusted self-sovereign data and identities (e.g. vehicles, people, businesses, things), verifiable credentials, and cross-industry interoperability (<https://dlt.mobi>).*

5) Organisation:

- a. **Leader:** *ECQA GmbH, Dr. Andreas Riel*
- b. **Tandem Leader or Co-leader:** *DLT Austria, Ed Prinz*

6) **Activities (or Services** – please see [D3.2 Collaboration control and quality mechanisms \(project-flamenco.eu\)](https://project-flamenco.eu)):

- a. *Sending out invitations to ASA VET's*
 - i. *Currently, the ASA has 37 VET organizations as their members*
 - ii. *The vast majority of them heavily engaged in proposing training offers on digital skills*
 - iii. *These are all candidates for joining the Blockchain Mobility TF, since they have already expressed their extending their qualification offers to include Blockchain and DLT's*
- b. *First TF Meeting*
 - i. *The key objective is to transfer the TF's vision and mission to the invited ASA VET's, and obtain their commitment to actively contributing to realizing them via the path of a permanent working group*
 - ii. *Every invited organization will get as a mission to prepare their own specific interests and contributions to the WG*
- c. *Second TF Meeting*
 - i. *Inputs will be consolidated in a collaborative way*
 - ii. *From this, activity areas will be structured in the form of work packages*
 - iii. *Provisional work package*
- d. *Third TF Meeting*
- e. *WG Proposal Draft*
- f. *WG Proposal Review & Agreement*
- g. *WG Proposal Submission to ASA*

7) **Outcomes:**

- *Creation of a permanent ASA Workgroup on the subject of the skills required to develop and drive forward blockchain, and more generally, distributed ledger technologies deployment in the future mobility ecosystem (covering individual as well as public transport, particularly in a Mobility-as-a-Service MaaS context)*
- *Creating a sustainable offspring of the CHAISE Blueprint*
- *Establishing an operative branch of the EBSCN*

8) **Overall status visibility:** <Public/Private/Protected>

9) **Results Visibility:** <Public/Private/Protected>

10) **Possibility to Join WG:** <Public/Private/Protected>

Remark: joining the WG will be initially limited to ASA members, in order to ensure the WG's strong anchoring in the ASA ecosystem. Once the critical mass is achieved that is required to define the key strategic objectives and the action lines to follow up on those, the WG governance may decide to open the WG to the public for integrating the complimentary organisations and stakeholders needed in order to adequately cover the diverse skills and competences spectrum that characterizes the future mobility ecosystem.

Working Group Initiation Application - Acknowledgement

Dear Andreas Riel,

thank you for submitting your Task Force Group application, *Blockchain Skills for Mobility*. The content and goals of your proposed initiative align closely with the priorities of the Automotive-Mobility ecosystem skills agenda and the mission of the Automotive Skills Alliance partnership.

Your initiative will now be presented to and assessed by the relevant Topic Committee. We will keep you informed about the progress and any next steps in due course.

Should you have any questions in the meantime, please feel free to reach out.

Best regards,

Marek Spányik
ASA Secretariat

26.11.2024

