



## **DRIVES Framework Sustainability**

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**D4.5 – Set up an ERFA Sustainability Stakeholder Group  
Responsible for Easy Automotive Skills Exchange (GREASE)**



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## TABLE OF CONTENTS

1.1	Usage of the DRIVES Framework as a Whole.....	4
1.1.1	Automotive Skills Alliance (ASA).....	4
1.1.2	Working Group 3 – Skills Intelligence.....	8
1.2	Usage and Sustainability of Individual Tools and Features .....	11
1.2.1	Training Offer and Training Provider Networks .....	11
1.2.2	Trainees, Learning Accounts and Digital Badges.....	11
1.2.3	Feature 3 (F3) – Expert Community .....	11
1.2.4	Feature 7 (F7) – Apprenticeships .....	12
1.2.5	Feature 9 (F9) – API .....	12
1.2.6	Feature 10 (F10) – Company Overview .....	12
2.1	Initial Timeline .....	13
2.2	Further Steps in Software Development.....	13
2.3	After DRIVES .....	14



## INTRODUCTION

This document describes the development of the sustainability of the DRIVES Framework. Sustainability of the tool is described from multiple perspectives:

- Dissemination and Impact Perspective - the Pact for Skills (Pfs) Partnership – the Automotive Skills Alliance;
- Software Development Perspective;

These perspectives are described in more detail in respective sections of the documents where the main goals, processes and implementation of these perspectives is outlined.

This document provides only supplementary perspective on the sustainability of DRIVES Framework, the framework as such is described in detail in the deliverable D4.4.2 DRIVES Framework<sup>1</sup>.

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<sup>1</sup> [https://www.project-drives.eu/Media/Publications/211/Publications\\_211\\_20211201\\_113520.pdf](https://www.project-drives.eu/Media/Publications/211/Publications_211_20211201_113520.pdf)



# 1 DISSEMINATION AND IMPACT PERSPECTIVE

Dissemination and impact perspective is formed by following aspects (that are achieved by the Automotive Skills Alliance, which was formed based on the PfS to assure continuous development of re-/up-skilling and collaboration of stakeholders on related topics):

- Usage of the DRIVES Framework as a whole;
- Usage and sustainability of individual tools and features;
- Wider goals and future plans.

## 1.1 USAGE OF THE DRIVES FRAMEWORK AS A WHOLE

DRIVES Framework is set to be one of the main tools of the Automotive Skills Alliance. DRIVES Framework is enabling the ASA partnership all its features as described in the D4.4.2<sup>2</sup> and further in this document.

### 1.1.1 Automotive Skills Alliance (ASA)

Automotive Skills Alliance is a partnership with the mission of bringing together different kind of stakeholders involved in the Automotive ecosystem and to ensure continuous, pragmatic, and sustainable cooperation on the skills agenda in the ecosystem. ASA ensures the sustainability of the DRIVES Project results as well as enables the recognition of the skills agenda related actions of other project, academia, training providers, regions as well as industry.

Main high-level ambitions are:

- **A1:** provide a clear implementation framework towards skills transformation and contribute to post-COVID recovery;
- **A2:** pave the way to member states/regions/industry for massive up-/re-skilling agenda;
- **A3:** jointly, with partners and Commission, provide one-stop-shop services for members;
- **A4:** and represent an open partnership for all already existing or future stakeholders, initiatives or projects to cooperate under one European umbrella for the Automotive Ecosystem.

Ambitions are connected to the main eight high-level objectives (where the DRIVES Framework role is mentioned below each goal):

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<sup>2</sup> Development and Research on Innovative Vocational Educational Skills. (2021). (rep.). DRIVES Framework. Retrieved from [Publications\\_211\\_20211201\\_113520.pdf \(project-drives.eu\)](#).



- **G1:** Continuously, systematically and pragmatically update intelligence about the ecosystem and its development, resulting in data on skills needs and guidance to education and training providers.
  - *This influences the training offer in the DRIVES Framework and training providers can target the needs which can be specified in the DRIVES Framework and thus efficiently up-to-date courses can be offered directly to the trainees.*
- **G2:** Ensure systematic and harmonised EU-wide definitions of skills and job roles used in Automotive Ecosystem;
  - *The framework provides possibility for definition of reference job roles and skills. This is updated by the expert community*
  - *ASA assures that stakeholders are populating the DRIVES Framework, promoting the platform, and keeping data up to date.*
- **G3:** Ensure an adapted and updated EU-wide database of training and education courses offered towards the Automotive Ecosystem;
  - *Direct promotion of the use of the DRIVES Framework in sustainable manner.*
- **G4:** Ensure EU-wide recognition of the job roles/skills through commonly accepted system;
  - *Promotion of the use of the DRIVES Framework which is coherent with the ESCO taxonomy.*
- **G5:** Ensure holistic approach to the overall paradigm of continuous up-/re-skilling in the Automotive Ecosystem;
  - *ASA offers an unified methodology where the DRIVES Framework is one of the main tools used.*
- **G6:** Support massive acceleration of investment in human capital through pilot regional projects focused on up-/re-skilling activities;
  - *It is planned to offer and use the DRIVES Framework within the regional and other pilot projects. This allows that regional project or any other kind of project might use the framework as the source of possible training courses that are needed in order to achieve the desired job roles.*
- **G7:** Call for the sharing of best practices and create an overall framework to share the knowledge within the Automotive Ecosystem to enhance skills agenda developments;
  - *DRIVES Framework enables to share re-/up-skilling good practices as well as the intelligence in form of the training courses and skills/job roles concepts, or apprenticeships offer.*



- **G8:** Promote trust to ensure sustainable and systematic cooperation on the skills agenda in the Automotive Ecosystem.
  - o *DRIVES Framework is one of the tools to assure this.*

Summary of the objectives is visible in the Figure 1 below.

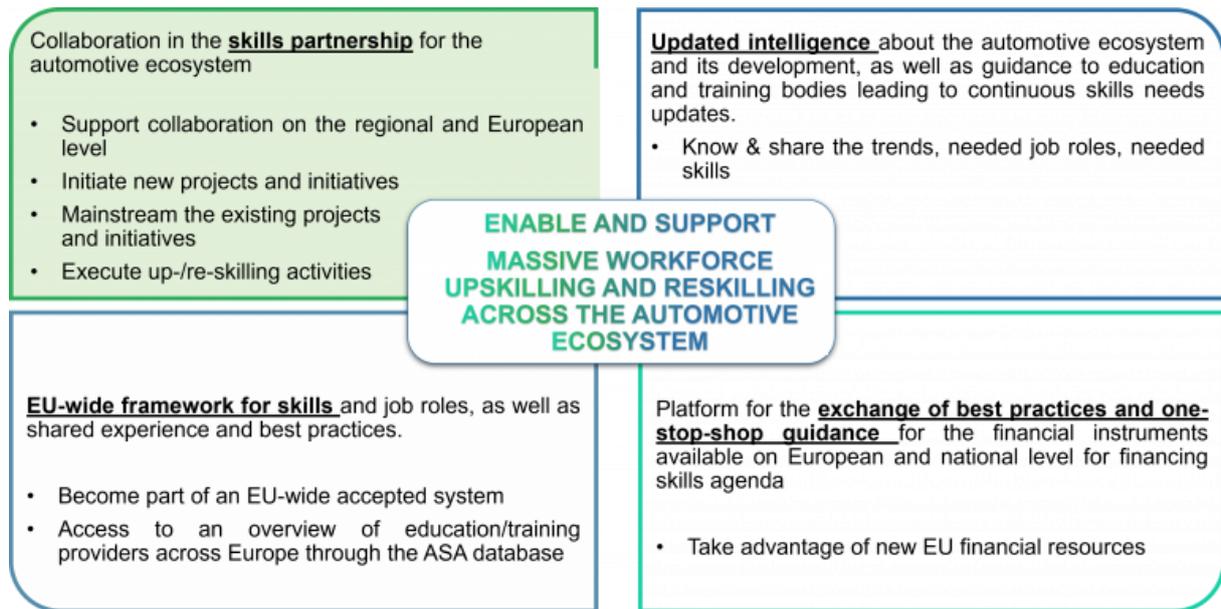


Figure 1: ASA Objectives

ASA is comprised of 4 main working groups (DRIVES Framework role is described below each bullet point):

- **WG1 Horizontal Issues** where horizontal topics and issues are being discussed targeting opportunities, apprenticeships or other.
  - DRIVES Framework facilitates apprenticeships offer, comparison tool and toolkit as well.
- **WG2 Communication and Dissemination** where results, activities or cooperation are being disseminated or discussed.
  - Results in terms of the training content, skills concepts or usage of the tool may be disseminated.
- **WG3 Skills Intelligence** (Figure 2) where more specific discussion on research/development, skills needs, and offer are being discussed.
  - DRIVES Framework is one of the main tool to be used in the WG3 by different sub-working groups or actions group within those sub working groups. Skills and training needs related to following topics are discussed: (1) Repair and Maintenance led by CECRA; (2) Batteries led by Skelleftea Municipality; (3) Hydrogen led by Hydrogen Europe; (4) IT (Digitalisation) led by Transilvania IT Cluster; (5) Electronics Packaging led by APTE; and (6) System/Software International Standards led by Valeo;

- **WG4 Regional Implementation** where regions are active, round tables are being organized and more specific regional needs and implementation is taking place.

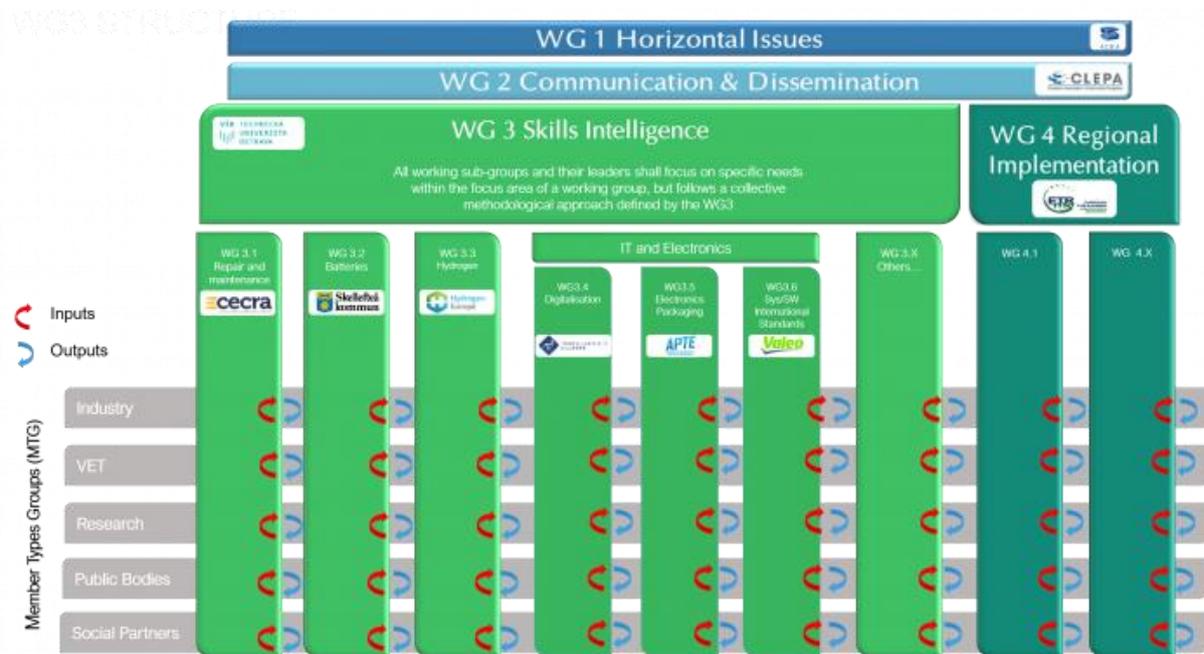


Figure 2: ASA Structure<sup>3</sup>

### 1.1.2 Working Group 3 – Skills Intelligence

As mentioned above, working group three is concerned with the skills intelligence and training offer in the ecosystem. In this work package, the DRIVES Framework has the biggest impact. DRIVES Framework will help to facilitate the following methodological goals of the WG3:

- overall cooperation on the demand and supply side of the ecosystem – usage of various tools to define and update needed competence, job role profiles or qualifications;
- define and cooperate on the needed training material and offer, that is up-to-date and based on the needs and on its quality and recognition);
- networking and discussion on the current and upcoming issues an areas of interest and to work on the aforementioned;
- collection of good practices, methodologies and approaches on how to work with the intelligence;

This will be assured not only by the DRIVES Framework but also by other DRIVES Project developed tools:

<sup>3</sup> [ABOUT US – AUTOMOTIVE SKILLS ALLIANCE \(automotive-skills-alliance.eu\)](http://automotive-skills-alliance.eu)

- DRIVES Learning Platform;
- Good Practice Resource Tool;
- Apprenticeships Comparison Tool;

Foreseen work on the skills intelligence follows agile principles where current issues, plans and activities are described in each sprint as seen in the Figure 3 below.

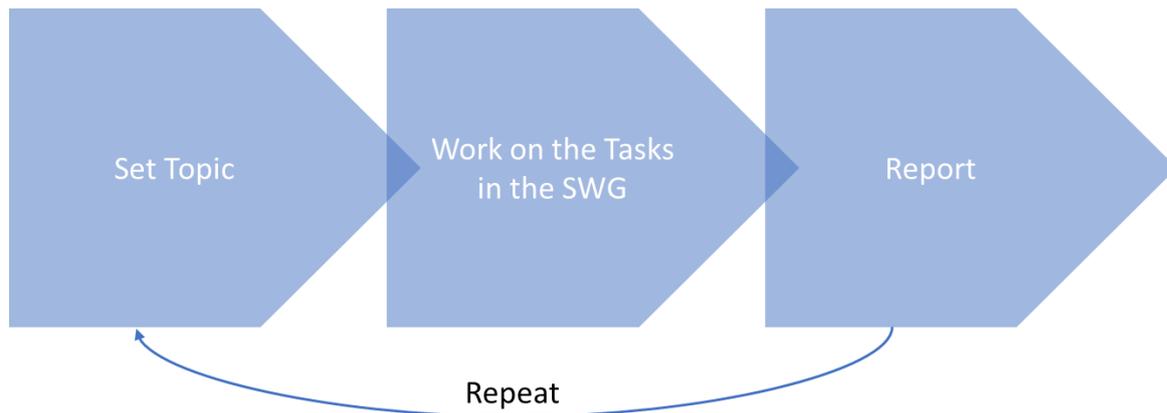


Figure 3: Agile Approach to Working Groups 3 Activities

Overall approach to the recognition and definition of the skills, competence and job roles concepts is transferred from DRIVES Project and further elaborated. Coherency with the DRIVES Framework is assured. As seen in Figures 4,5,6 below.

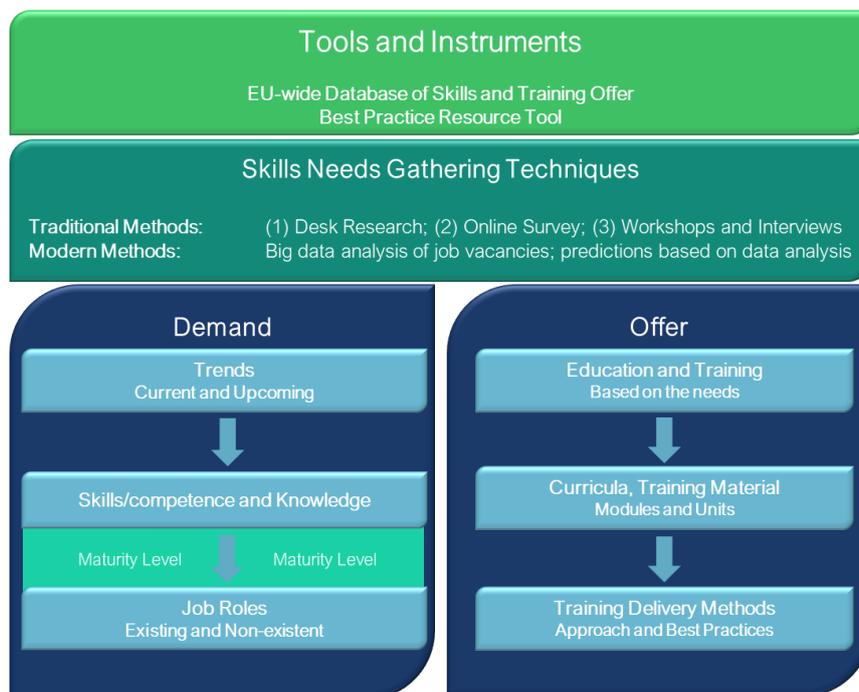


Figure 4: Methodology and Approach to the Skills Intelligence in the ASA

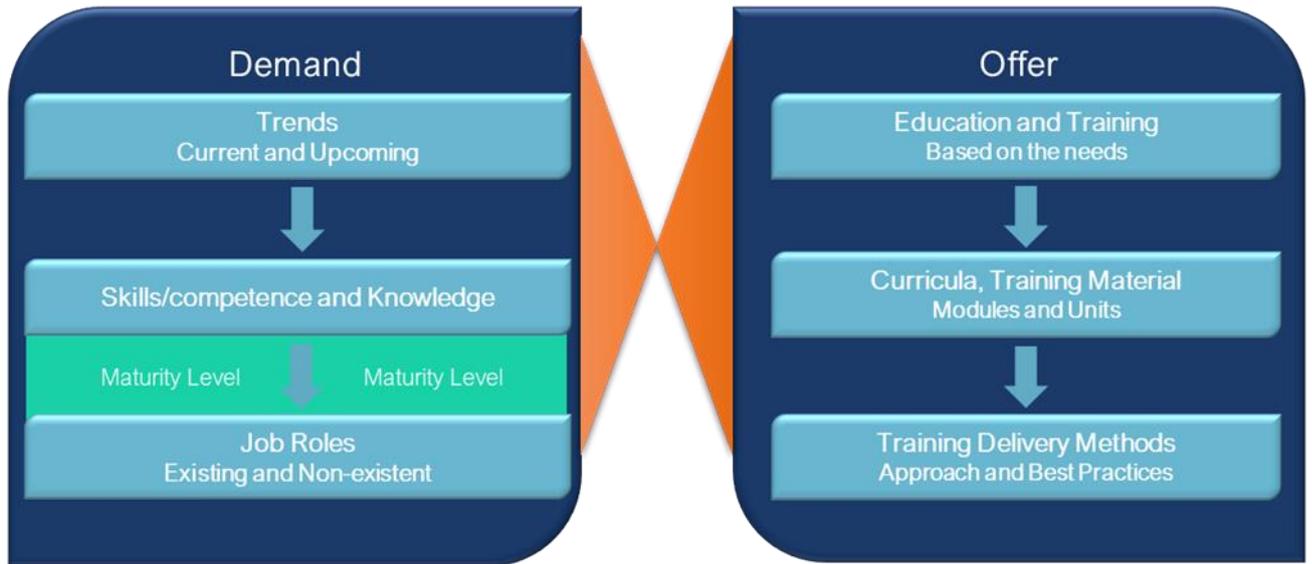


Figure 5: Matching the Demand and Supply of the WG3 Skills Intelligence

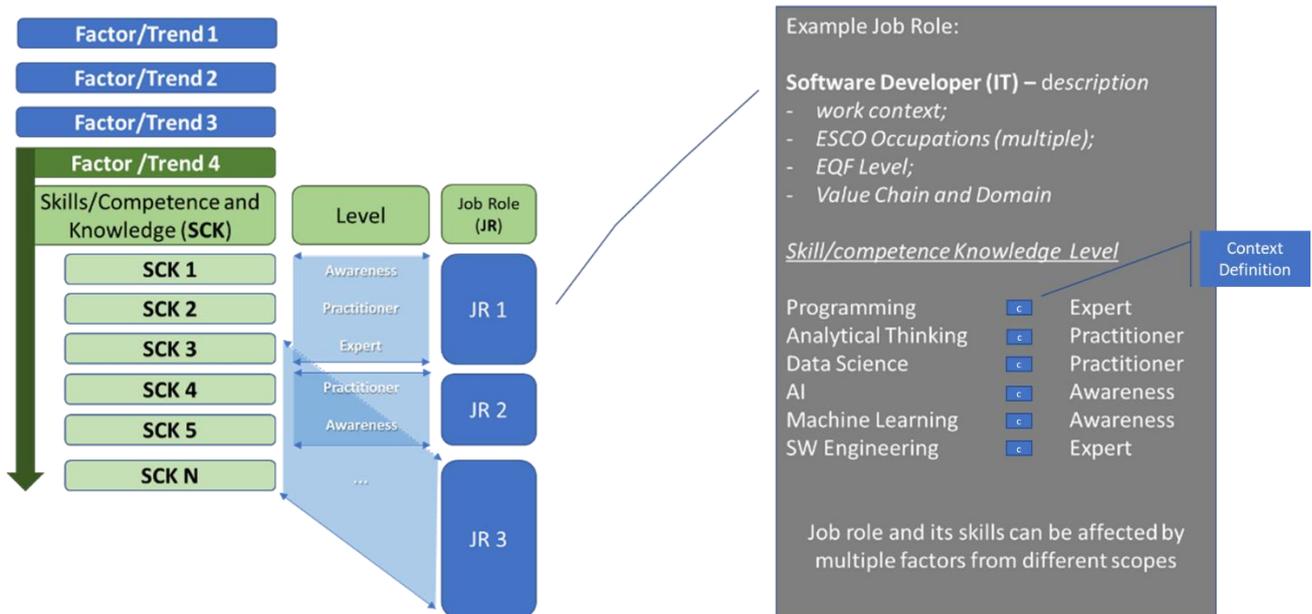


Figure 6: Detailed Scheme and Structure of the Skills Intelligence Concepts (ASA)



## 1.2 USAGE AND SUSTAINABILITY OF INDIVIDUAL TOOLS AND FEATURES

This section describes individual sustainability plan for different DRIVES Framework Platform tools and features which were grouped based on the sustainability context, full list of the features and their purpose is described in the DRIVES Deliverable 4.4.2.

### 1.2.1 Training Offer and Training Provider Networks

Sustainability of the **training courses and offer** is assured by the training providers and trainees who are enrolling for the courses. Further development of the platform will facilitate prioritisation and highlight of relevant and favourite course which will boost the interest of the providers to provide more quality and lucrative content which would need to be competent with other provider. This will result in more efficient dissemination of the “right” courses to the trainees in need.

Second perspective of the sustainability will be achieved by the ASA which will embed the DRIVES Framework as one of the tools and will actively promote and disseminate its benefits, which will result in more training providers and trainees active in the platform.

### 1.2.2 Trainees, Learning Accounts and Digital Badges

Sustainability of the learning accounts and tracking of the achievements is achieved by the ASA promotion and embedding as one of the tools. Further features will assure that the usage is lucrative for the trainees – higher quality through the ASA by reaching wider network of the training providers, who have higher quality training content.

DRIVES Framework also offers the **digital badges (micro-credentials)**. Their sustainability will be assured by the wider usage and promotion through ASA, further development of meta badges or exploration of the block-chain technology as well as having more recognised training providers which offer more quality content.

### 1.2.3 Feature 3 (F3) – Expert Community

Sustainability of the **Experts community** is assured by the ASA and WG3 where individual sub working groups and their focus groups form working groups in the DRIVES Framework Platform to jointly work on the definition and update of the skills and job role concepts which are matched against the training offer.

Further facilitation of the plug-in of concepts of individual and interested EU projects or consequent pilot projects under the ASA will be assured by the fact that the usage of the DRIVES Framework will be embedded within those projects.

### 1.2.4 Feature 7 (F7) – Apprenticeships

**Good Practice Resource Tool** - Responsibility for sustaining and enhancing the Good Practice Resource over time will be transferred to the Automotive Skills Alliance (ASA). The scope of the tool will be widened beyond a focus on apprenticeships to include all training and skills development issues and that the protocols for collection and documentation of innovative practice are streamlined with those being developed through the ASA.

**Apprenticeships Comparison Tool** - the Automotive Skills Alliance could will provide an umbrella structure for taking forward and sustaining the Apprenticeships Comparison Tool.

**Apprenticeships Toolkit** – ASA will sustain the Apprenticeship Toolkit within their website and make it public after the project DRIVES ends.

### 1.2.5 Feature 9 (F9) – API

DRIVES Framework API will facilitate more features which will be demanded by the users. Currently the registration of the user and verification of the training completion and thus issuing of the digital badges is possible. This mechanism is tested between the DRIVES Framework and the learn platform, future sustainability will be assured by connecting more providers through the ASA as seen in the figure below:

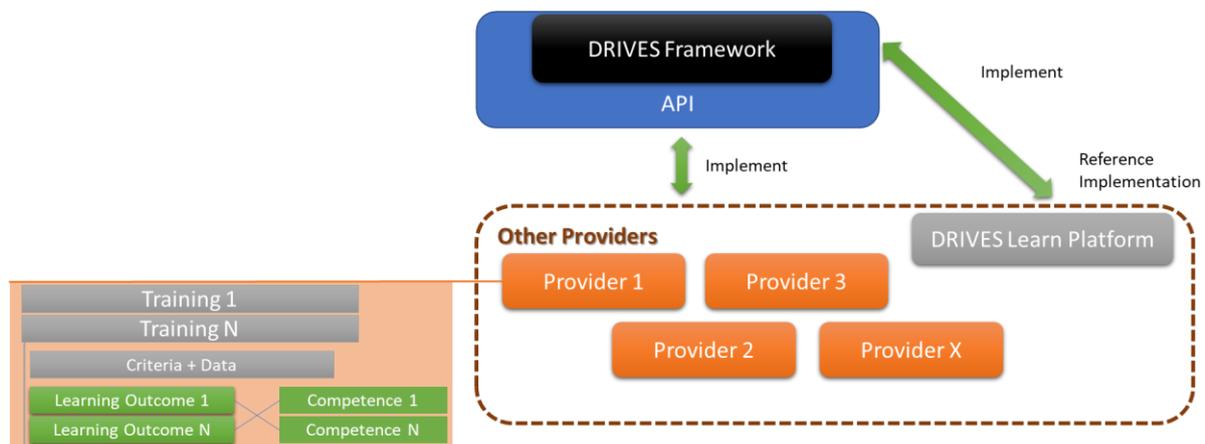


Figure 7: 3rd Party Training Providers API Implementation Concept

### 1.2.6 Feature 10 (F10) – Company Overview

Company overview will be sustained by the ASA and will be offered to the companies and entities within the ASA or other interested.

## 2 SOFTWARE DEVELOPMENT PERSPECTIVE

Software development perspective describes the continuous development and implementation of the DRIVES Framework and responsibilities and how this is sustained in a long term.

### 2.1 INITIAL TIMELINE

Initial timeline of the DRIVES Framework software development is seen in the figure below.



Since the DRIVES Framework is being continuously developed, there will be a new timeline and implementation goals defined for the years 2022 and on.

### 2.2 FURTHER STEPS IN SOFTWARE DEVELOPMENT

Main software development rationales will be defined in the Automotive Skills Alliance based on the user feedback and needs of the industry and training providers that will be using the DRIVES Framework.

Possible future enhancements are as follows:

- rebranding the DRIVES Framework into the Automotive Skills Alliance corporate design;
- further development of the API;
- overall development in terms of user friendliness;
- GUI and design;
- improvement of features mentioned in section 1.2;
- validation and testing.

Software development will be maintained by VSB-TUO which has been so far the main developer of the DRIVES Framework platform.

## 2.3 AFTER DRIVES

The DRIVES Framework will be further updated and maintained in the Automotive Skills Alliance, as the EU-wide Database for Mobility-Automotive Ecosystem. This will require update of the design, while still acknowledge the origin and legacy from the DRIVES project. This is planned to Q3-4 2022.

### 2.3.1 Related Sustainability Items

As a project DRIVES legacy and its sustainability plan, a set of sustainability items was developed. Following list of sustainability items summarises proposed actions and lifecycle of the products related to DRIVES Framework as a product of WP4.

**Table 1: DRIVES Framework - Related Sustainability Items**

Item	Details	So far in DRIVES	After DRIVES
<b>DRIVES Compass (DRIVES Framework)</b>	<ul style="list-style-type: none"> <li>EU-wide DB of training courses</li> <li>Individual learning account for users</li> <li>Company view</li> <li>Possibility to issue badges by training providers</li> <li>Working groups to define reference job roles and skills</li> </ul>	Designed in WP4 and developed by VSB-TUO on VSB-TUO servers.	<p><b>Solution:</b> <b>ASA EU-wide DB of training courses in Automotive-Mobility Ecosystem</b> (<a href="http://www.drives-compass.eu">www.drives-compass.eu</a>) Usage of all features listed in details. Central tool for the training and education in automotive sector. Providers just link their courses</p> <p><b>Issues:</b></p> <ul style="list-style-type: none"> <li>- Need to support the usage of the platform by encouragement of the DRIVES partners (providers) to enter at least one course out of the DRIVES developments, if they have.</li> <li>- Need to stabilize reference skills and job roles definitions - through the work of WG3.X of ASA.</li> <li>- Need to engage people to working groups - through the work in WG3.X of ASA.</li> <li>- Need to use the framework in the trainings – through related future projects of ASA partnership, and usage by ASA members.</li> <li>- Need to engage providers to issue badge. By its value for the recognition in the ecosystem.</li> </ul> <p>Possible payments in future (to be discussed)</p> <ul style="list-style-type: none"> <li>- For Issuing of the digital badge (paid by training provider)</li> <li>- For prioritization of the courses (gold/platinum, etc. courses are more on the top – prioritized sorting) (paid by training provider)</li> <li>- Company view (paid by company)</li> </ul> <p>Platform maintenance (server, IT update) and further development (need to be aligned with Europass, new features, etc.) might be done by ASA or by the assigned ASA member (e.g. VSB-TUO) based on the agreed conditions (tbc)</p>
<b>DRIVES Compass (Good practice resource)</b>	<ul style="list-style-type: none"> <li>Designed to share mainly apprenticeship good practices</li> </ul>	Designed and developed in WP5	<b>ASA Good Practice Resource Tool</b> - Open for other projects/initiatives (including pilot regional projects) to share its best practices across ASA
<b>DRIVES Compass (Apprenticeship comparison tool)</b>	<ul style="list-style-type: none"> <li>Database of apprenticeships offer with enabled searching and detail provision</li> </ul>	Designed and developed in WP5	Will be available at DRIVES Compass – maintained and used by ASA Need to discuss it further usage and possible update.

## 3 CONCRETE COOPERATION WITH STAKEHOLDERS

Concrete sustainable cooperation with stakeholders on the DRIVES framework revolves around different roles and entities in the system, DRIVES Framework collaborates with:

- **training providers** to expand the training courses in the database, improve the system and infrastructure for training management and issue of the digital badges;
- **trainees** that will consume the contents of the DRIVES Framework in a form of plugged training courses, will give feedback to the platform and will receive the digital badges for the completion;
- **experts' community** that will continuously update the intelligence, meaning the competence, skills, knowledge, and job roles concepts within experts working groups and will improve the infrastructure;
- **companies** that will use the company overview to keep track of their employees and their progress in terms of career paths.

Further information on the communities and users is available in the project DRIVES Deliverable D4.4.2<sup>4</sup>.

### 3.1 COOPERATION WITH THE STAKEHOLDER ECOSYSTEM

In detail cooperation and courses in the DRIVES Framework are described in the project DRIVES deliverable D4.4.1<sup>5</sup>.

#### 3.1.1 Cooperation with Aggregators and Databases

Entities that integrate the training courses in majority and offer them under one “brand” or academy.

Name	Collaboration on / Ongoing & Planned Action
Ambassadors4Skills&Jobs	Collaboration on the training offer, focused on Portugal.
European Battery Alliance (EBA)	Provision of the DRIVES Framework as a training course interface of the EBA and all of its features.



<sup>4</sup> [Publications\\_211\\_20211201\\_113520.pdf \(project-drives.eu\)](#)

<sup>5</sup> [Publications\\_212\\_20211201\\_113610.pdf \(project-drives.eu\)](#)

### 3.1.2 Cooperation with Training Providers, Accreditation Bodies, or Companies

Entities that develop and/or accredit courses.

Name	Collaboration on / Ongoing & Planned Action
APTE	Courses and concepts related to the electronics packaging through ASA
EWF	Concepts related to additive manufacturing and in connection to the SAM project.
ECQA	Planned to provide courses
EuroSPI	Relation to the certification provision and creation of the training material, courses in the DRIVES project.
Transilvania IT Cluster	Courses and concepts related to the IT and Digitalisation ASA
EDUCAM	Courses and concepts related to the repair and maintenance



### 3.1.3 Cooperation with Project and Other Initiatives

Other projects or initiatives.

Name	Collaboration on / Ongoing & Planned Action
ECEPE	Course and concepts from the ECEPE Project related to eDRIVE.
CYBERENG	Course and concepts from the CYBERENG Project related to automotive cybersecurity.
METIS	Concepts related to the microelectronics.
aLIFeCa	Course and concepts from the aLIFeCa Project related to vehicle lifecycle assessment.
SAM	Concepts related to the additive manufacturing. Description of job roles and skills is already fully included into the DRIVES Framework.
ALBATTs	Concepts and training courses related to the batteries.
Hydrogen Europe and Hydrogen Blueprint	Concepts related to the hydrogen.

