

# STRATEGIC ERASMUS PROJECTS IN THE AUTOMOTIVE SKILLS AGENDA

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# AUTOMOTIVE SKILLS AGENDA

THE ROAD UNTIL NOW

### AUTOMOTIVE SKILLS AGENDA - BACKGROUND

- The European automotive industry is going trough massive transformation caused by the impact of digital and green transformation (Green Deal, Fit for 55) and post-covid recovery.
- Impact to the workforce cca. 15 million people employed in European automotive value-chain
- Impact to the overall Automotive Ecosystem and other related ecosystems (e.g. energy)
- Skills Gap Jobs endangered VS. struggle to attract and recruit qualified people for new and emerging jobs
- Geographical Gap new jobs arising in other locations than diminishing jobs



### AUTOMOTIVE SKILLS AGENDA - BACKGROUND

**Just Transition > Continuous Transition** 

How to find and assure stability and **stable environment** for workers in a business environment that **is and will be constantly and rapidly changing**?

Sustainable, massive and pragmatic approach towards education and training (up-/re-skilling) is needed more than ever before

COLLABORATION IS THE KEY



#### AUTOMOTIVE SKILLS AGENDA - INITIATIVES

- High Level Group GEAR 2030 (2015 2017) Final report on automotive competitiveness and sustainability
- New Skills Agenda for Europe (2016) with action The Blueprint for Sectoral Cooperation on Skills



Automotive Sector Ongoing (2018 - 2021)



Batteries Sector Ongoing (2019 - 2023)

European Skills Agenda (2020) with action Pact for Skills (launched November 2020)





## Background Info: Overview of Blueprint Projects

- automotive 2018 <a href="https://project-drives.eu">https://project-drives.eu</a>
- maritime technology 2018
- space geo information 2018
- textile, clothing, leather and footwear 2018
- tourism 2018
- additive manufacturing 2019
- construction 2019
- maritime shipping 2019
- steel industry 2019
- bioeconomy, new technologies and innovation in agriculture 2021
- batteries for electro-mobility 2020 <a href="https://project-albatts.eu">https://project-albatts.eu</a>
- defence technologies 2021
- energy value chain digitalization 2021
- energy-intensive industries/industrial symbiosis 2021
- microelectronic manufacturing & design 2021





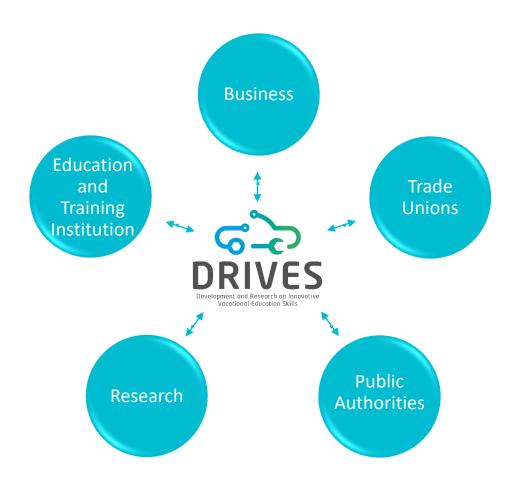


The Blueprint for Sectoral Cooperation on Skills





### **DRIVES - The Blueprint Project for Automotive Sector**





January 2018 to December 2021



Project assures cooperation between 24 full partners from 11 EU countries



**Steering Board** has extra 10 associated partners, chaired by **ACEA**, co-chaired by **CLEPA**, **ETRMA**, as full project partners.



## **DRIVES — Partnership**



#### Full Project Partners















































#### Selected Associated Partners





























## DRIVES DRIVES - Objectives



#### **Sectoral Intelligence**

**Analyse key trends** in the automotive, covering the whole value chain

Define the skills and job roles needed in the future

**Analyse existing training offer** currently available for the trainings/upskilling

**Identify skills gaps** for foreseen changes

#### Recognition

Ensure mutual recognition of the skills and job roles across the EU

Create an EU-wide framework that can be used throughout the EU and implemented in the EU regions – based on commonly used definitions

Regularly deliver policy recommendations reflecting the needs of the automotive sector to the European Commission

#### **Training Offer**

Create trainings for selected skills and job roles in the automotive sector

Provide as a pilot 1100 trainings across the EU and across the education and training institutions

Provide clear guidance for the education and training providers on skills needs of the automotive industry







## **DRIVES Sectoral Intelligence**







#### **DRIVES** Skill Needs – Skills Index

#### **Sectoral Intelligence**



**DRIVES-D2.7 Insights to Automotive Sector** 

Skills Index = Occurrence of Skill \* average **DoC Index of linked DoCs** 

VIRTUAL PRODUCT DEVELOPMENT & TESTING

DIGITAL NETWORKS

THERMAL MANAGEMENT

**ENERGY MANAGEMENT** 

TESTING/VALIDATION

**CHANGE MANAGEMENT** 

MECHANICAL

DESIGN

CRITICAL THINKING

IOT & CLOUD

PRODUCT DEVELOPMENT

**FOREIGN LANGUAGES** 

DRIVETRAIN

MANAGEMENT & LEADERSHIP PREDICTIVE MAINTENANCE

ADAPTABILITY/FLEXIBILITY

CONTINUOUS IMPROVEMENT

**FUNCTIONAL SAFETY** 

POWER ELECTRONICS

PROJECT MANAGEMENT

AUTOMATED DRIVING **BATTERIES** 

BEHAVIOURAL AGILITY

SUSTAINABILITY

ALTERNATIVE ICE POWERTRAINS

CONNECTIVITY

COMMUNICATION

**AFTER-SALES SERVICES** 

SYSTEM ARCHITECTURE

PROBLEM SOLVING

MOBILITY SERVICES

PRODUCTION ORGANIZATION

INTERNAL LOGISTICS

**TEAMWORK** 

**ELECTRIC MOTORS** 

MAINTENANCE

ELECTROCHEMICAL







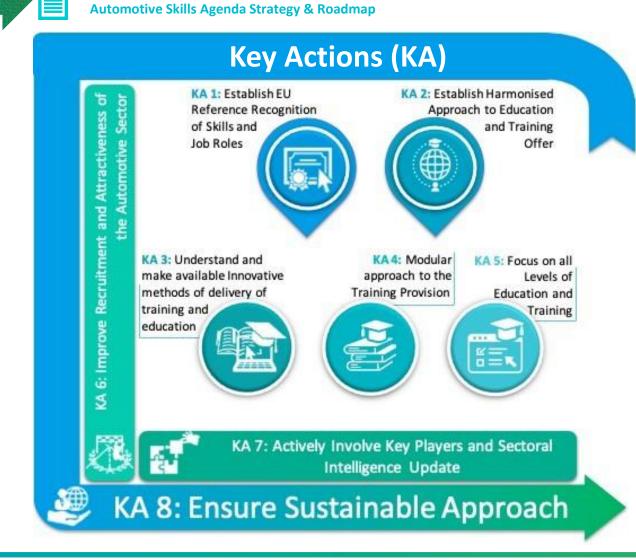
## **Automotive Skills Agenda – Strategy & Roadmap**

**DRIVES-D2.10** 

#### **Sectoral Intelligence**



- The analysis led to the strategy and roadmap for the Automotive sectoral skills agenda
- Second release in December 2020
- Update in December 2021







# **DRIVES Training Offer**







## **Emerging Job Roles Definition**

**Training Offer** 



- Each Job Role has <u>publicly available</u>
  - Short fact sheet
  - Skill cards documents describing the learning outcomes
  - Online browsing possibility

| Job Roles Titles                         | Leaflet | Skills<br>Cards | Portal  |
|--|---------|-----------------|---------|
| ADAS/ADF TESTING AND VALIDATION ENGINEER | pdf     | pdf             | Browser |
| ARTIFICIAL INTELLIGENCE Technician       | pdf     | pdf             | Browser |
| COMPUTER VISION EXPERT                   | pdf     | pdf             | Browser |
| MACHINE LEARNING Engineer                | pdf     | pdf             | Browser |
| SENSOR FUSION EXPERT                     | pdf     | pdf             | Browser |
| AUTOMOTIVE ENGINEERING CAD, CAE, CAM     | pdf     | pdf             | Browser |
| PRACTITIONER IN AUTOMOTIVE SPICE®        | pdf     | pdf             | Browser |
| CONNECTED VEHICLES EXPERT                | pdf     | pdf             | Browser |
| CONNECTED VEHICLES TECHNICIAN            | pdf     | pdf             | Browser |
| AUTOMOTIVE CYBERSECURITY ENGINEER        | pdf     | pdf             | Browser |
| AUTOMOTIVE CYBERSECURITY TESTER          | pdf     | pdf             | Browser |
| AUTOMOTIVE CYBERSECURITY MANAGER         | pdf     | pdf             | Browser |
| RUBBER TECHNOLOGIST - BASIC LEVEL        | pdf     | pdf             | Browser |
| ADVANCED POWERTRAIN ENGINEER             | pdf     | pdf             | Browser |
| FUNCTIONAL SAFETY MANAGER STRATEGY LEVEL | pdf     | pdf             | Browser |
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**Job Role Descriptions** 







**Training Offer** 



learn.drives-compass.eu

- For DRIVES defined job roles the DRIVES partnership is providing free of charge
  - Set of online trainings in form of MOOCs (28 online training)
  - Courses with trainer interaction with specific date and capacity in 2021

DRIVES Learning Platform

learn.drives-compass.eu

 Trainings are free of charge and could be used directly by companies or by training providers in their trainings





**DRIVES Recognition of Skills and Job Roles** 







## **EU-wide Framework for the Automotive Ecosystem**

#### Recognition of Skills and Job Roles



www.drives-compass.eu



Reference Description of Competences/skills and Job Roles

- Across the whole EU Automotive Ecosystem



**EU Wide Database of Training Courses for Automotive Ecosystem** 

- Advertisement on the whole market, One-single-point to find the required training and training path



Harmonized Approach to Recruitment and Mobility of Workforce Across the Sector

- Digital Badge for skill/competence level achievement in form of Micro-credentials



**Quality Pledge of the Training Courses** 

- Assured by mapping exercise of the course

www.drives-compass.eu





## **DRIVES – Selection of Main Project Results**

#### **Sectoral Intelligence**

**Sectoral Skills Needs** (D2.7)

**Sectoral Skills Offer and Gap (D2.8)** 

Apprenticeship Key Issues and Recommendations (D5.2)

**Hiring an Apprentice Guide (D5.3)** 

Sectoral Skills Strategy and Roadmap (D2.10)

#### **Training Offer**

40 Defined New or Emerging Job Roles (D3.1)

28 MOOC courses developed and delivered (D3.3)

<u>Trainer interaction courses delivered</u> (D3.3)

**DRIVES Learning Platform (D3.3)** 

Recognition

**DRIVES Framework (D4.3.1)** 

**Good Practice Resource Tool (D5.1)** 

See more at https://www.project-drives.eu/en/results





# - albatts Project

The Blueprint for Sectoral Cooperation on Skills

## What is **ALBATTS**?



**20 Partners in 4-year** (2019-2023) Erasmus+ funded project



Blueprint for Sectoral Cooperation on Skills in Battery sector





























Focus on demand and supply sides of competences in the battery value chain











# In short – **ALBATTS** is answering two big questions



Q1: What is going on? (Answered by WP3,4,5, Sectoral Intelligence)

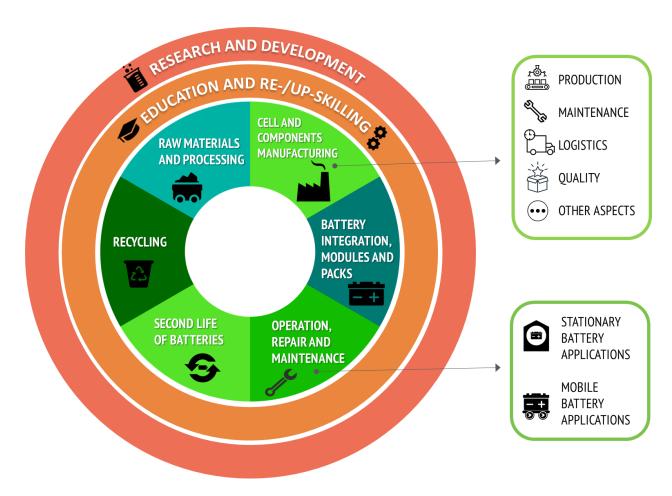
Q2: How can we adress the identified education and training needs? (WP6, Education and Training)



## Sectoral Intelligence in Battery Sector



- Identification of skills and job roles needs
- Set up clear <u>sectoral skills strategy</u>
- Covers the battery life cycle batteries developed for and used in both stationary and mobile applications
- Enabling education sector to provide education and training for the future workers and specialists needed by the battery sector



Project results: <a href="https://www.project-albatts.eu/en/results">https://www.project-albatts.eu/en/results</a>



# **Education & Training**

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- Analyse new job roles/skills
- Suggest learning objectives
- Develop course plans
- Develop learning material
- Try out adaptive learning
- Pilot-test innovative courses
- Train-the-trainer guidelines
- Network!
- Use European instruments
- Implement results







European Quality Assurance in Vocational Education and Training











ESC<sub>0</sub>

European Skills/Competences, qualifications and Occupations







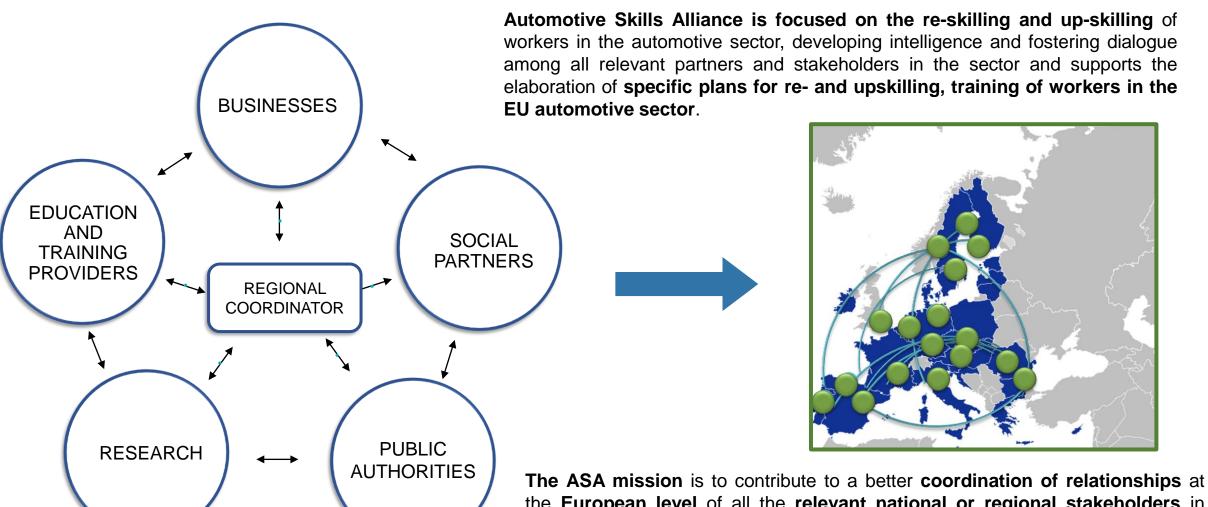
PACT FOR SKILLS PARTNERSHIP INTRODUCTION

#### BACKGROUND - EUROPEAN SKILLS AGENDA - PACT FOR SKILLS

- <u>Pact for Skills</u> is the first flagship action of the <u>European Skills</u>
   <u>Agenda</u>, firmly anchored in the principles of the European Pillar
   of Social Rights. It also <u>supports</u> the <u>EU Industrial Strategy</u> and
   the goals of the <u>Green Deal</u> and the <u>digital transformation</u>.
- The goal of the Pact is to mobilise and incentivise private and public stakeholders to invest and take concrete action for the upskilling and reskilling of people of working age.
- It is a shared engagement and approach to mobilise all stakeholders to invest in skills for the growth and sustainable development of private and public businesses of all sizes.
- The Pact facilitates the launch of skills partnerships, in particular it aims to build large-scale multi-stakeholder skills partnerships addressing the needs of the 14 industrial ecosystems identified in the EU Industrial Strategy.









the European level of all the relevant national or regional stakeholders in automotive ecosystem, in order to ensure and develop a common platform for collaboration and best practice sharing across borders. In this regard, ASA intends to ensure continuous, pragmatic and sustainable cooperation on the skills agenda in the ecosystem.

## Collaboration in the **skills partnership** for the automotive ecosystem

- Support collaboration on the regional and European level
- Initiate new projects and initiatives
- Mainstream the existing projects and initiatives
- Execute up-/re-skilling activities

<u>Updated intelligence</u> about the automotive ecosystem and its development, as well as guidance to education and training bodies leading to continuous skills needs updates.

Know & share the trends, needed job roles, needed skills

#### **ENABLE AND SUPPORT**

MASSIVE WORKFORCE
UPSKILLING AND RESKILLING
ACROSS THE AUTOMOTIVE
ECOSYSTEM

**<u>EU-wide framework for skills</u>** and job roles, as well as shared experience and best practices.

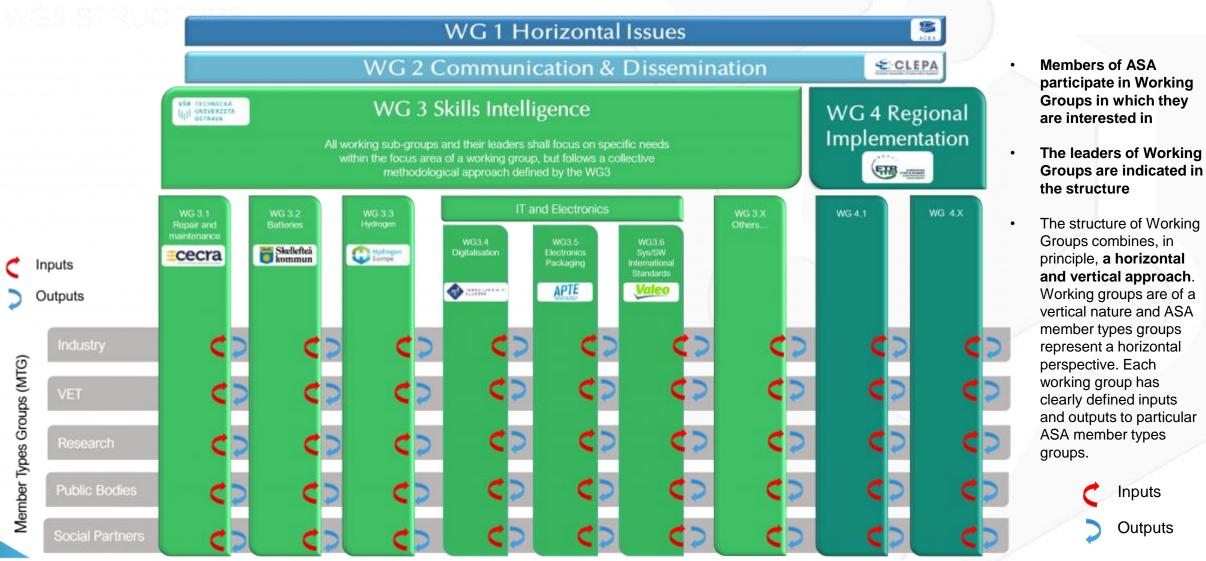
- Become part of an EU-wide accepted system
- Access to an overview of education/training providers across Europe through the ASA database

Platform for the <u>exchange of best practices and one-stop-shop guidance</u> for the financial instruments available on European and national level for financing skills agenda

Take advantage of new EU financial resources



### STRUCTURE - MEMBERS PARTICIPATION



#### COLLABORATION OF ASA MEMBERS TROUGHT PROJECTS

ASA builds upon the work carried out by strategic projects in the skills agenda for the ecosystem & promotes and facilitates initiation of new projects/initiatives or support mainstreaming the existing once

**EU Funding > Public Funding > Private Funding** 



Automotive Sector (Jan 2018 – Mar 2022)

The Blueprint project on Strategic Sectoral Skills Collaboration in Automotive Sector. Focused on skills needs & offer, training recognition and training developments in the automotive sector



Batteries Sector (Dec 2019 – Nov 2023)

The Blueprint project on Strategic Sectoral Collaboration in Batteries for Electromobility Sector. Focused on skills needs & offer, support of training developments in the battery sector.

# An opportunity to build on the best practices and initiate new projects and collaborations

Skills Needs and Gaps in the Ecosystem

Development of New Training Courses

Centers of Vocational Excellence

Up-/Re-skilling Projects on regional/national or European level

Forward Looking Projects

...any existing/new project or initiative



Platform for up- and reskilling Stuttgart Region in the Automotive and Manufacturing Sector: one-stop-shop for SMEs to answer all question in the field of up- and reskilling. The companies receive information, platform offers and guidance to the different services and offers from the entire partner network.

ASA allows us to gain a lot of knowledge and expertise, to raise the profile of our region on the European level, enlarge or network and most of all, work with skilled and very dedicated experts in this field.

Collaboration and sharing best practices how to deal with the regional transformation. Get skills that are not in local environment through ASA collaborations. Recognition of the regional up-re skilling project, activities and skills achievements

**Moravian-Silesian region:** The goal is to up-/re-skill 5000 people up to year 2026 in Mobility ecosystem. The project will support regional transformation from coal mining and related activities to modernized and green mobility industry and ecosystem.

Auvergne-Rhône-Alpes: First phase of the project: study to identify the needs of H2 skills of 100 enterprises of the sector.

Second phase: action plan, creation of Hydrogen training modules (initial or vocational training) for enterprises or unemployed.

- Promote regional stakeholders' initiatives and projects
- Exchange good practices with other stakeholders at EU level and identify funding and project opportunities

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 Participate to a dialogue with representatives from economic and VET sector to identify common challenges & solutions.



08/06/2022 www.automotive-skills-alliance.eu

# **EXAMPLES OF COLLABORATION** OF ASA MEMBERS TROUGHT PROJECTS/INITIATIVES

- Examples of ERASMUS+ Projects submitted and/or in preparation
  - National Levels
    - Al/Machine Learning Expert training course
  - Central Projects
    - Forward Looking projects, CoVEs, etc.
- Example of cluster excellence projects
  - Facilitation of ASA network, collaboration and tools (<u>EU-Wide DB of training courses & microcredentials</u>, and <u>ASA Open Learning Platform</u>)



# **EXAMPLES OF COLLABORATION** OF ASA MEMBERS TROUGHT PROJECTS/INITIATIVES

- Example of Projects/Initiatives at Regional Level
  - TRAUTOM, Moravian-Silesian Region, Czech Republic (Just Transition Fund Mechanism)
    - Expected size **20M EUR** (80% directly to the training courses execution covering also salary of the workers)
    - Target is to have 5000 People up-/re-skilled till 2026
    - Builds Ecosystem for continuous education and training on the regional level (industry, education and training providers, regional authorities, social partners)
    - Builds regional Ecosystem for continuous skills intelligence gathering and update in relation to the regional and European view
    - Implements and connects with the European layer (ASA) best practices sharing & education and training providers network



## Thank you for your attention !!







