



How to meet the future requirements of the automotive industry?

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23rd of May, International Week 2019 - FHWS



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Introduction – Automotive Sector

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- **How will the automotive industry change in the next 10 years?**
- **What are the driving forces for further innovations?**



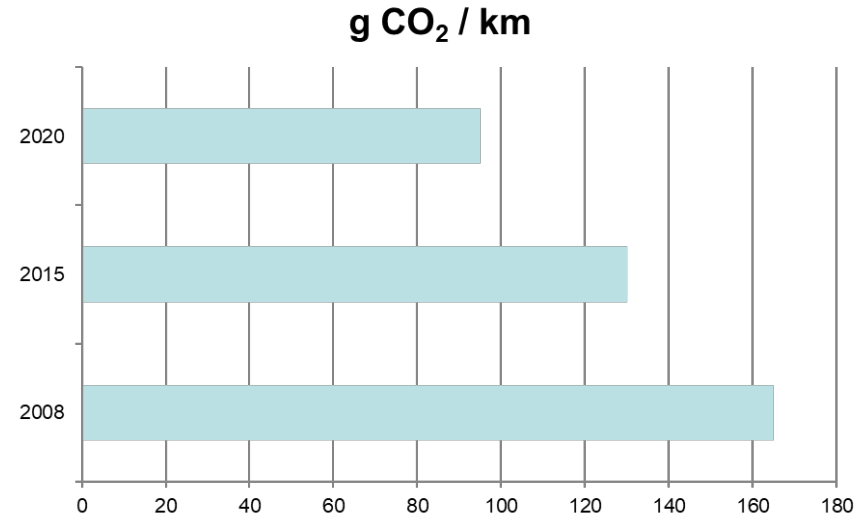
Introduction – Automotive Sector

- **How did the automotive industry change in recent years?**
- **How will the automotive industry change in the next 10 years?**
- **What are the driving forces for further innovations?**
- **How to be prepared to these changes in the best possible way?**



CO₂ reduction:

- 30 % of all energy is used for mobility
- 18 % of the worldwide CO₂ emission is due to mobility
- 3/4 are coming from road traffic

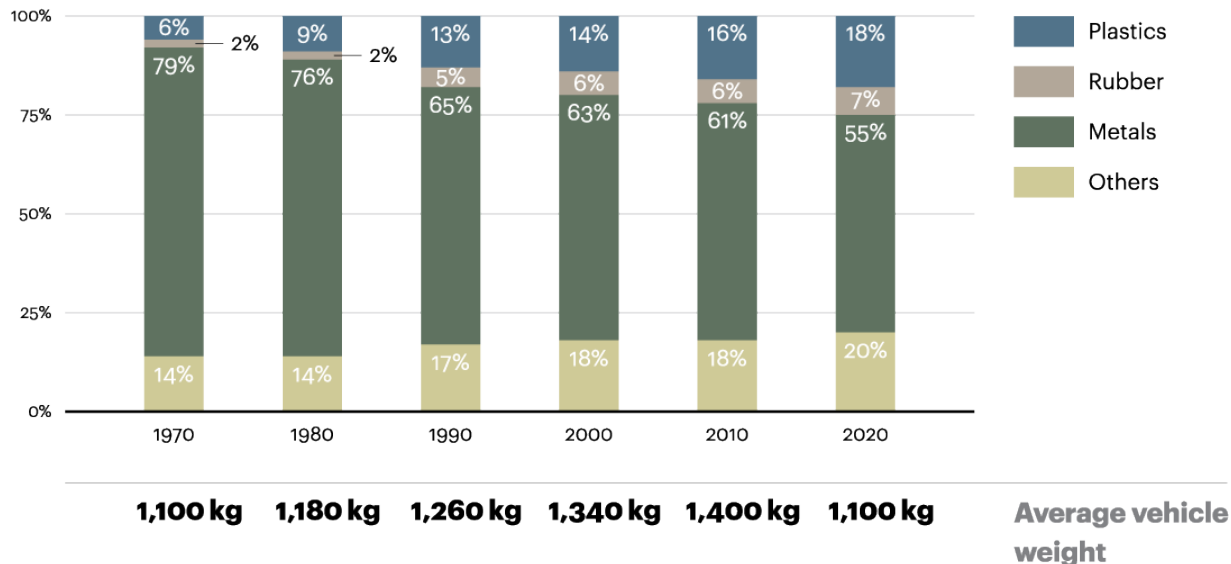


„Kunststoffe im Auto – was geht noch?“, GAK 4/2013 Jg. 66, p. 248-258



Light Weight Materials

Percentage of total vehicle weight



Notes: kg = kilogram. Due to rounding, some percentages may not add up to 100.

Source: A.T. Kearney analysis



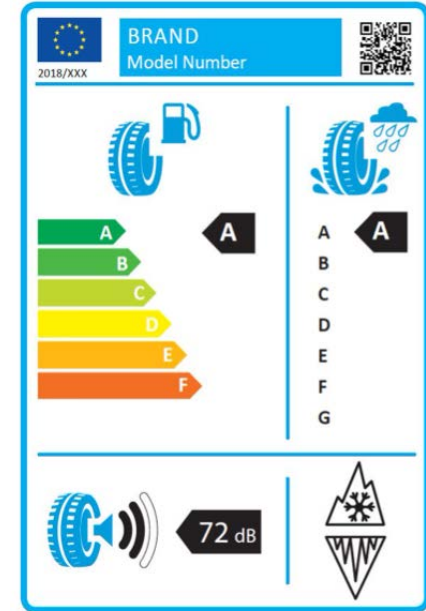
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EU Rolling Resistance Regulation for 2012 / 2020: Thresholds

Tire category (new tire)	2012 Limit value (kg/t)*	2020 Limit value (kg/t)*
C1: PC tires	12.0	10.5
C2: Light commercial tires	10.5	9.0
C3: Heavy duty tires	8.0	6.5

*Coefficient of rolling resistance in kg/t according to ISO28580



→ The limits are becoming tougher!

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0296>



Future Car & Connected Domains



And many more!

https://images.cdn.autocar.co.uk/sites/autocar.co.uk/files/styles/gallery_slide/public/images/car-reviews/first-drives/legacy/future-car-3rd-971.jpg?itok=INeQV2ty



Automotive Sector:

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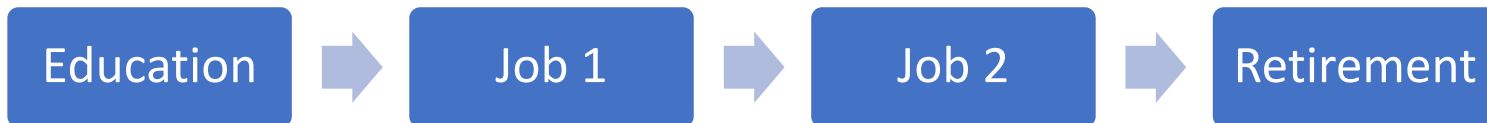
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 - appr. 900 000 new employees will be needed between 2016 and 2025

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 - 12.2 million workers (5.6 % of total EU employment)
 - Increasing demand for well-trained employees
 - appr. 900 000 new employees will be needed between 2016 and 2025
 - High-level qualifications for half of all job offers are expected until 2025
- Strong dependency on the education & qualification of employees**

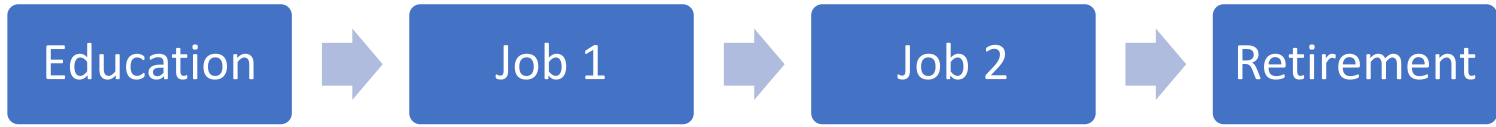
Change in Job Requirements

Before:

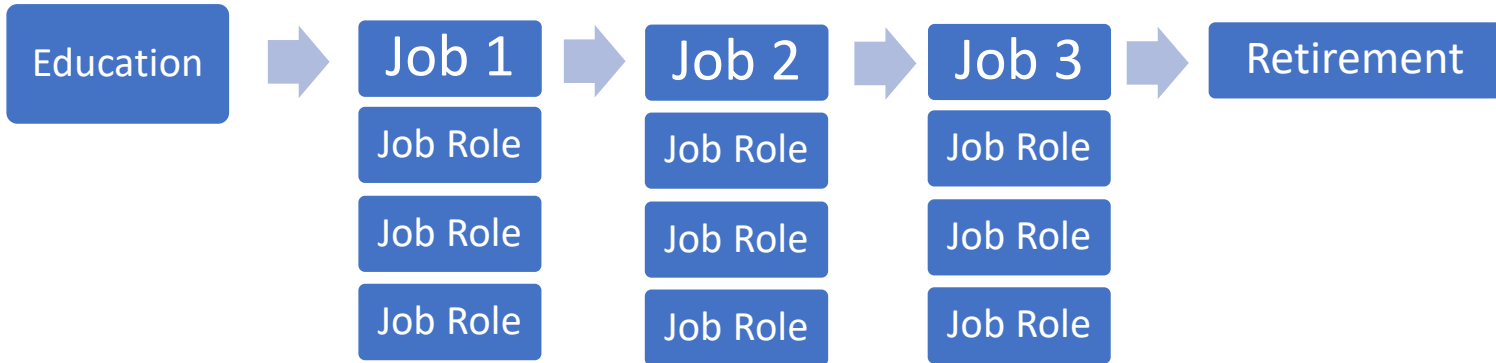


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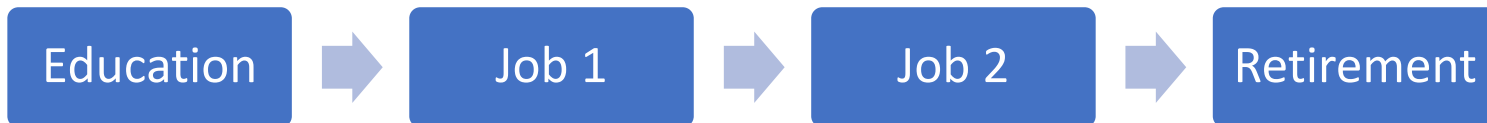


Nowadays:

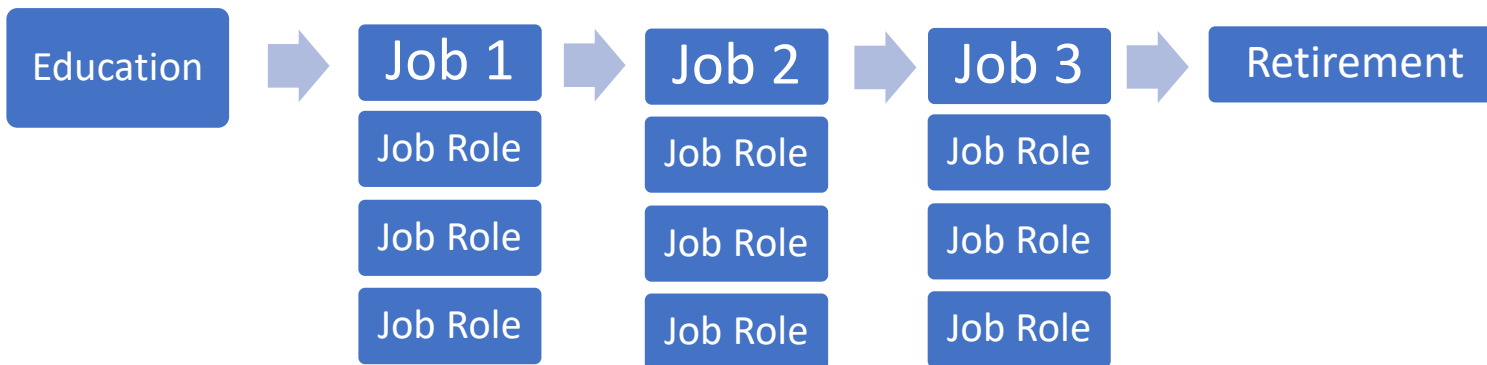


Change in Job Requirements

Before:



Nowadays:



→ Lifelong learning and re-qualification

How to be prepared to these changes in the best possible way?

- How to ensure that required high level of qualification for employers is permanently up to date?

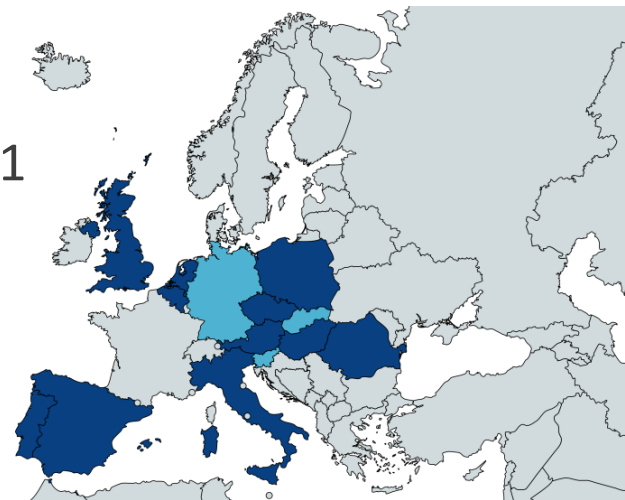


How to be prepared to these changes in the best possible way?

- How to ensure that required high level of qualification for employees is permanently up to date?
 - The **Development and Research on Innovative Vocational Educational Skills**



- EU Blueprint in Automotive Sector
- 24 Project members from 11 EU countries
- Project Duration - January 2018 - December 2021
- Funded by Erasmus + Sector Skills Alliances Program (4 Mio €)



- Project Coordinator



VSB – Technical University of Ostrava, Czech Republic

- Steering Board Leaders



European
Automobile
Manufacturers
Association



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- Work Package Leaders



- Partners



- Associated Partners (Members of Steering Board)



Verband der
Automobilindustrie



- Associated Partners:



Linked in - research partner



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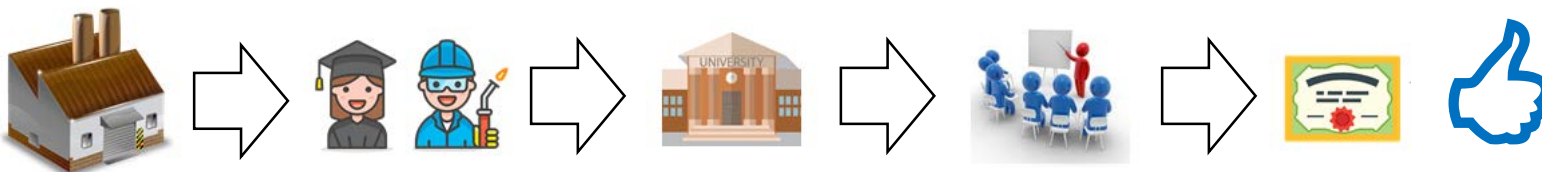
DRIVES Project – Key Objectives

- Identify missing skills inside automotive sector
- Creation of a pool of 30 new job roles
- Create EU-wide apprenticeship marketplace



How to re-qualify employees?

1. Employees need new qualification for a job role
2. Employer sends Employees to a training provider
3. Employees get trained & receives certificate



How to re-qualify employees?

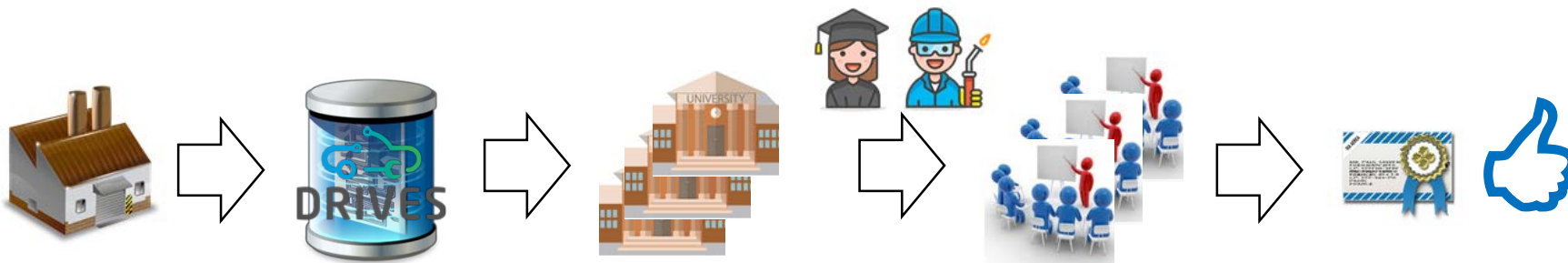
1. Employees need new qualification for a job role
2. No single training provider is offering the required skill trainings

→ **How to proceed?**



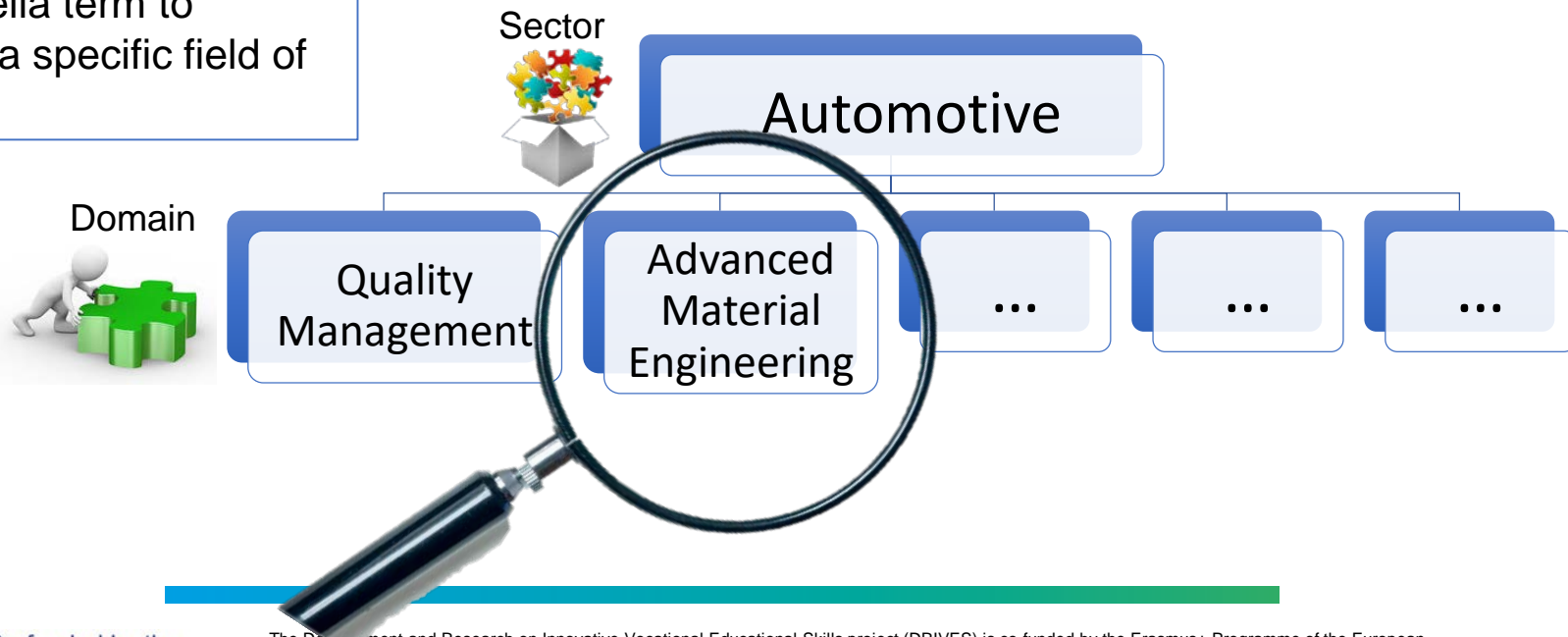
How to re-qualify employees?

1. Employees need new qualification for a job role
2. Company uses DRIVES Framework to search for the required skills and training
3. DRIVES Framework provides list of possible training providers
4. Company can choose best possible training and send their employees
5. Employees get trained & receive EU DRIVES certificate

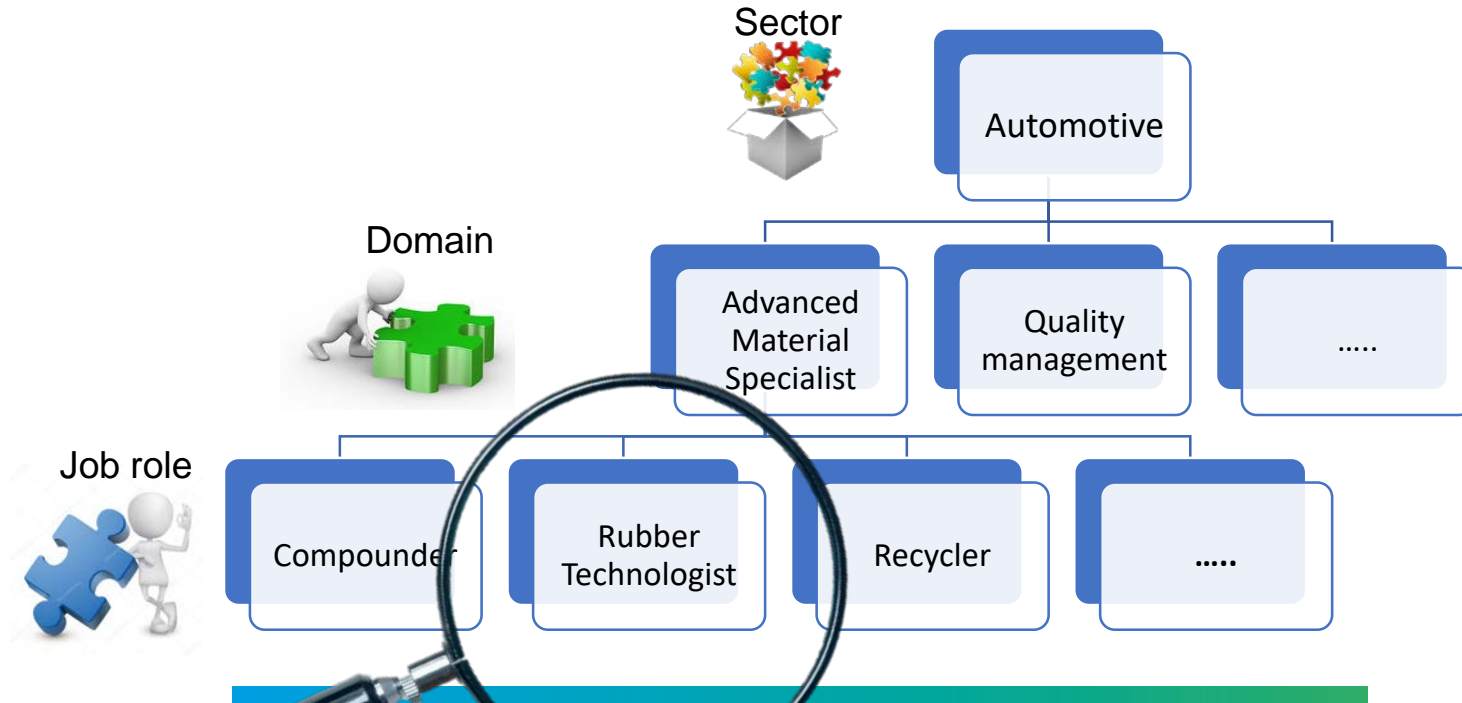


New Domain – Advanced Material Engineer

Definition of a domain:
An umbrella term to describe a specific field of interest



New Job Role – Rubber Technologist



Job Role: Rubber Technologist

Has knowledge about:

- How to create a rubber compound
- How the different materials in a rubber compound behave
- How to process a rubber compound
- How to adjust existing rubber compounds due to the new upcoming requirements of the automotive sector
- ...



Why a certified training?

- Training is always up to date
- Training is independent of specific companies and their interest for the market
- High quality and Europe wide acceptance
- Worldwide recognition



Development of 30 new job roles e.g.:

- Powertrain engineer (E-mobility)
- IT specialist for communicating cars (software)

- Rubber related job roles:
 - Rubber technologist
 - Silica/Silane specialist



Thank you for your attention

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More information and registration for DRIVES Newsletter at:

www.project-drives.eu



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Register as new Stakeholder

Register as a Stakeholder of DRIVES (for free) to participate in the upcoming survey!

Purpose of the survey is to identify emerging job roles which are not yet available.

Register link:

- <https://it.surveymonkey.com/r/HNGG8H2>



Why to register as a stakeholder?

- Influence on the development of new trainings for your future needs
- Missing training providers can be identified and integrated into DRIVES
- Receiving updates of the project status
- Direct information about official new implemented and available job roles



Definition “Job Role”:

- **Job Role** based qualifications are short courses taking from 1 week up to ½ a year
 - Goal: re-qualify people in industry (access from the workplace) to sustain their value for the company and remain employed
 - Job Roles are described in form of **Skill Sets**
 - Skill Sets include **Training, Exercises** and **Tests**.
- Can be trained e.g. by **Universities, Institutes, etc.**

Job Role: Rubber Technologist

Rubber Technologist will be:

- EU certified qualification
- One of 30 new job roles for the automotive sector
- provided by e.g. the **European Certification & Qualification Association (ECQA)**

