Skills, Job Roles, Education & Training
Grasping the Scale of Transformation

Key Facts and Insights from the TRIREME Report

TRiREME

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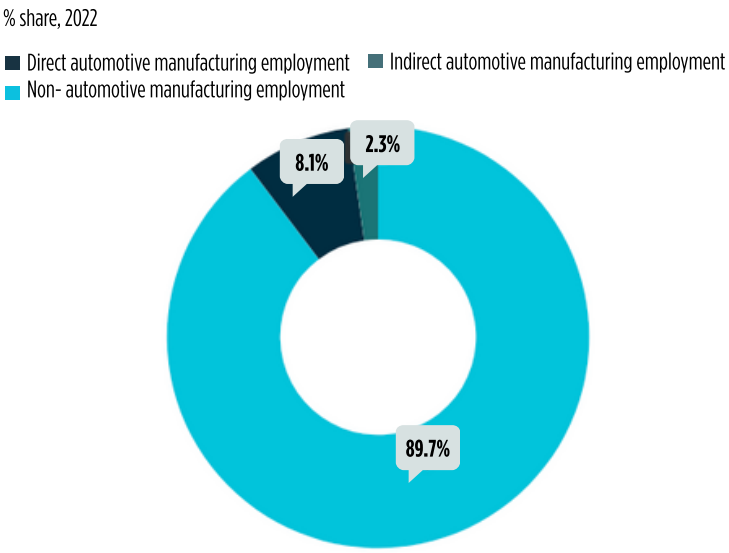
Sectoral Skills Intelligence Release 1 (D2.2)

The first chapter of the Report offers a thorough analysis of the key challenges confronting the automotive-mobility ecosystem from late 2024 through 2025. Building on this, the second chapter, featured in this document, examines the impact of these challenges on skills and occupational profiles.

Skills, Job Roles, Education and Training

From Report's page 25

- Transformation driven by **electrification**, **AI**, **digitalisation**, and **restructuring**.
- **Automotive sector represents over 10% of all EU manufacturing jobs.**
- 2024: **approx. 54,000 job cuts** due to restructuring, cost pressures, and closures.
- **Rising demand for** robotics engineers, AI and machine learning experts, and data analysts.
- **Decline in** traditional skills such as assembly line work and accounting.
- **Skills evolution reshaping competitiveness and resilience of EU industry.**



AUTOMOTIVE SHARE OF EU MANUFACTURING JOBS

Overview of Needed Skills and Job Roles

From Report's page 28

- **Digitalisation and software-defined vehicles:** demand for programming, data, cybersecurity, and embedded systems.
- **Autonomous vehicle technologies:** need for experts in AI, sensors, robotics, and data processing.
- **Electrification:** growth in battery technology, recycling, diagnostics, and raw material processing.
- **Circular economy:** new roles in end-of-life vehicle management, sustainable materials, and recycling.
- **Regulatory compliance:** growing need for experts in safety, emissions, and data governance.

Job Roles and Workforce Impact

From Report's page 30

- **Job losses widespread** due to automation, electrification, and market slowdown.
- Clerical/administrative roles **most vulnerable** to automation.
- Manual and inspection roles **evolving toward system supervision and digital tasks.**
- Technicians **at risk without upskilling** but can shift to oversight roles with training.
- **Engineers adapting** to AI-powered design tools; human expertise shifting to system orchestration.

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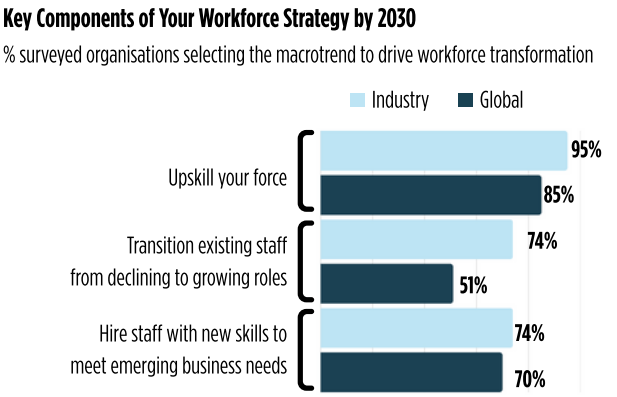
Education and Training Levels

From Report's page 31

- **Massive reskilling and upskilling required** across all levels.
- Sectoral Qualifications Framework (SQF Auto) **aligns education with job profiles**.
- 39% of existing skill sets expected to be **obsolete by 2030**.
- Workforce strategies focus on **automation**, **upskilling**, and **redeployment**.



WORKSFORCE STRATEGY OUTLOOK IN AUTOMOTIVE & AEROSPACE

Education and Training Offer

From Report's page 33

- **Key EU initiatives:** European Skills Agenda, Pact for Skills, Automotive Skills Alliance, Erasmus+ projects (DRIVES, ALBATTS).
- Participation **high** but impact **uneven** across Member States.
- 45% of employers report **difficulty finding workers with digital/environmental skills**.
- Persistent **mismatch** between training supply and industrial demand.

Lifelong Learning & Acess Challenges

From Report's page 34

- **Only 39%** of industrial workers engaged in lifelong learning (EU target: 60% by 2030).
- Micro and small enterprises **lack access** to upskilling programmes.
- **Fragmented systems** hinder mobility and recognition of qualifications.
- **Many vocational programmes outdated**—missing digital and battery system content.

Innovations in Learning and Training

From Report's page 35

- VR training **reduces** onboarding costs and risk.
- AI-driven adaptive learning **enables** personalised progress tracking.
- **Microlearning**: short digital lessons via mobile devices.
- **Blended learning** combines classical, digital, and mentorship methods for flexibility.

Recommendations for Systemic Development

From Report's page 36

- Establish **permanent national/regional centres for skills intelligence**.
- Recognise **micro-credentials** for modular skill-building.
- Involve companies in **co-designing training content**.
- Prioritise **inclusion** of older workers, women, and migrants through tailored support.
- **Knowledge is the new infrastructure** for competitiveness and fairness.

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> ***Automotive companies are investing in education and training to equip their workforce with future-ready skills.***

Corporate Initiatives

From Report's page 38

- **ReKnow University (Renault):** 40,000+ employees trained; global expansion underway.
- **Jaguar Land Rover Academy:** lifelong learning hub for all staff and apprentices.
- **BMW Group:** €400M investment in training; focus on battery tech, AI, and retail systems.
- **Volkswagen Group Academy:** 17,000+ apprentices; digital platform for skill development.
- **Mercedes-Benz:** global training for workshop, customer, and management roles.

Regional Initiatives

From Report's page 40

- **Pact for Skills** and **Union of Skills** promote regional cooperation and tailored training.
- **Local and regional authorities** central to matching training to economic needs.
- **Partnerships** between industry, education, and civil society ensure **relevance** and **inclusion**.

The Role of Social Partners

From Report's page 44

- Social partners (employers, unions) play a **key role** in managing labour transformation.
- **Collective bargaining essential** for adapting working conditions and wages.
- EU policymakers **urged to ensure timely consultation** of social partners on employment issues.
- **Dialogue fosters** fair adaptation to twin transitions and technological change.

Change in Costumer Experience and Needs

From Report's page 45

- 59% of EV buyers, 48% of traditional buyers **plan greater use of in-car connectivity**.
- Over 50% expect smartphone integration as **standard**.
- Premium buyers demand **personalised**, **seamless experiences**.
- Tyre sector moving toward **'Tyres as a Service'** through telematics and predictive maintenance.
- **Millennials and Gen Z** (75% of new buyers by 2026) **prefer mobility-as-a-service over ownership**.
- Industry must **expand digital offerings**, **ensure secure access to vehicle data**, and **address privacy risks**.

Read the full report here

Join us in shaping the future of the Automotive-Mobility ecosystem.

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