DRIVES
Development and Research on Innovative Vocational Education Skills

# LINKEDIN OUTLOOK

AUTOMOTIVE SKILLS AGENDA STRATEGY & ROADMAP

## DESCRIPTION

Since 2018, DRIVES project and LinkedIn have collaborated on a piece of research which analyses the EU automotive industry and its evolution.

Using LinkedIn insights, the research sheds light on the workforce in the automotive industry, transitions of professionals from and into the automotive industry, as well as the industry's skills needs.

The research complements the analysis performed by DRIVES project.

## METHODOLOGY

- LinkedIn uses aggregated and anonymised data to uncover new information on the EU automotive industry.
- The analysis is based on job position information provided by LinkedIn members:
  - Who either have a current position or started a position in the automotive sector (as defined by LinkedIn's industry taxonomy) between 2015 and 2019 (industry transitions and skills analysis)
  - Who are located (i.e. working) in the EU and UK.

Definitions:

- Location: LinkedIn determines a member's location by what is indicated in the members' profile summary.
- Industry: Members indicate their current and previous employers in the experience section of their profile.
- Skills: Members indicate their expertise within the skills section of their profile. LinkedIn standardises the myriad of individual skills that members choose to display on their profile into a skill taxonomy.

Research Questions:

- Industry transitions: Focusing on automotive positions within the timeframe 2015-2018, LinkedIn looked at the industries of either previous or next position on members' profiles
- Industry Skills Needs: Using a weighting factor to analyse skills added between 2015 to 2018 LinkedIn computed the top represented skills for each macro region, industry and year. This provides a time series (2015-2018) to discern changes in skills needs of the industry over time. LinkedIn also compared the most representative skills across regions in 2019.



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

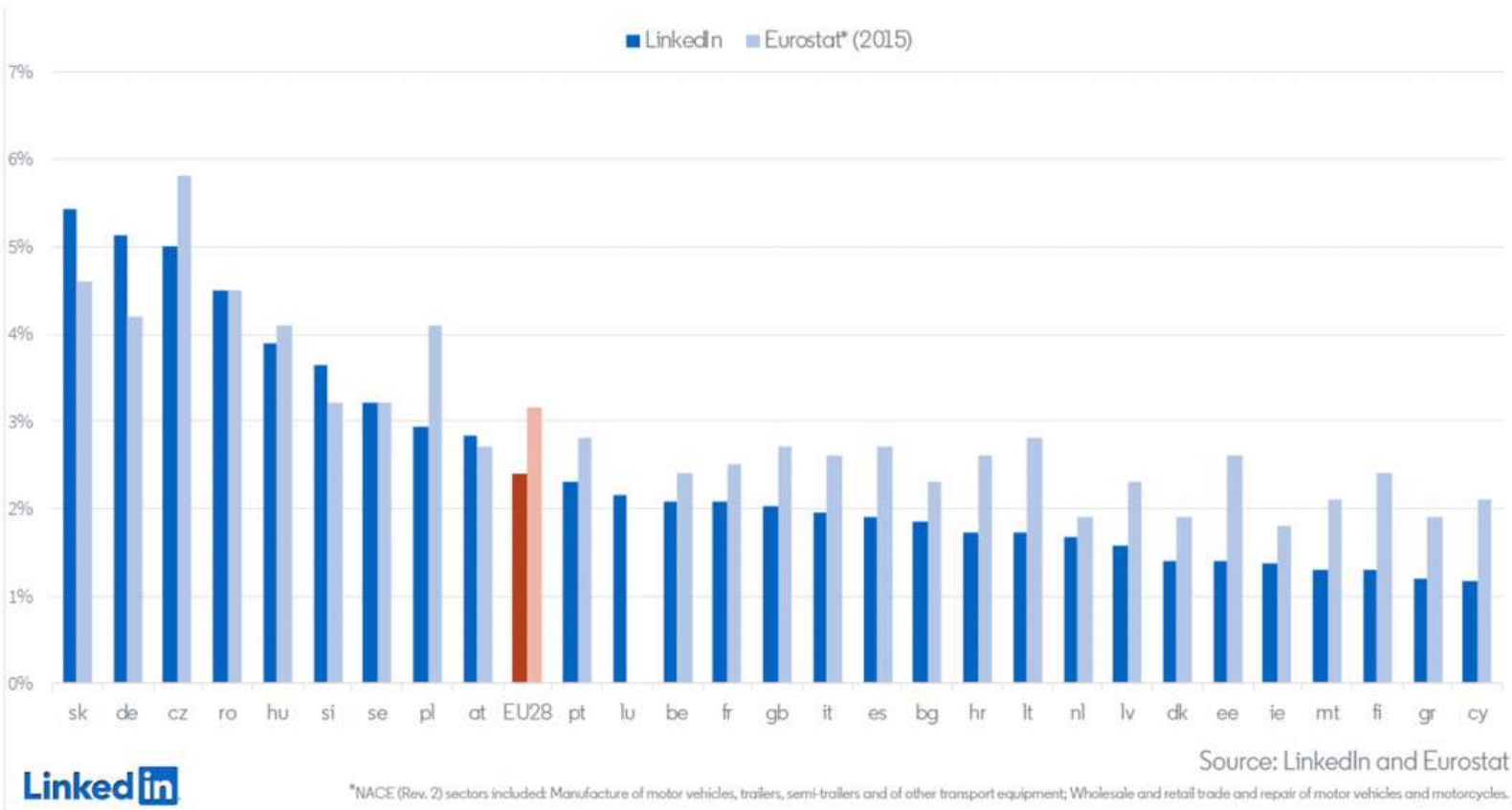


**Figure 1: LinkedIn's representation of EU automotive workforce**

The share of the LinkedIn workforce employed in automotive is similar to the share of automotive employment from Eurostat data used by DRIVES project (Fig. 1).

The attractiveness of the sector is another important element that can be analysed and mapped over time thanks to LinkedIn insights. The analysis confirmed that more than 40% of workers starting a job in automotive came from another industry. However, this proportion has been declining over time indicating a possible loss of attractiveness of the sector.

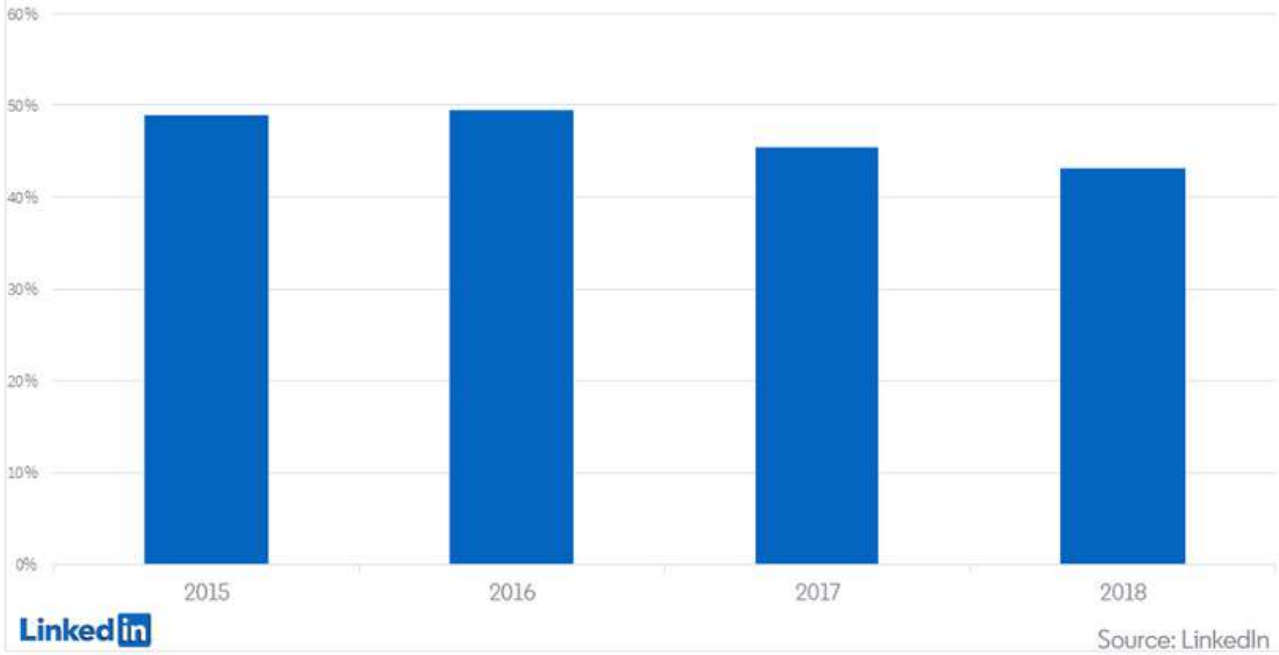


**Figure 2: Transitions from another industry to automotive as a share of all positions**



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

Looking at professionals who leave the automotive sector to pursue career opportunities in another industry, LinkedIn established which sectors are the most attractive for automotive workers. (Figure 3).

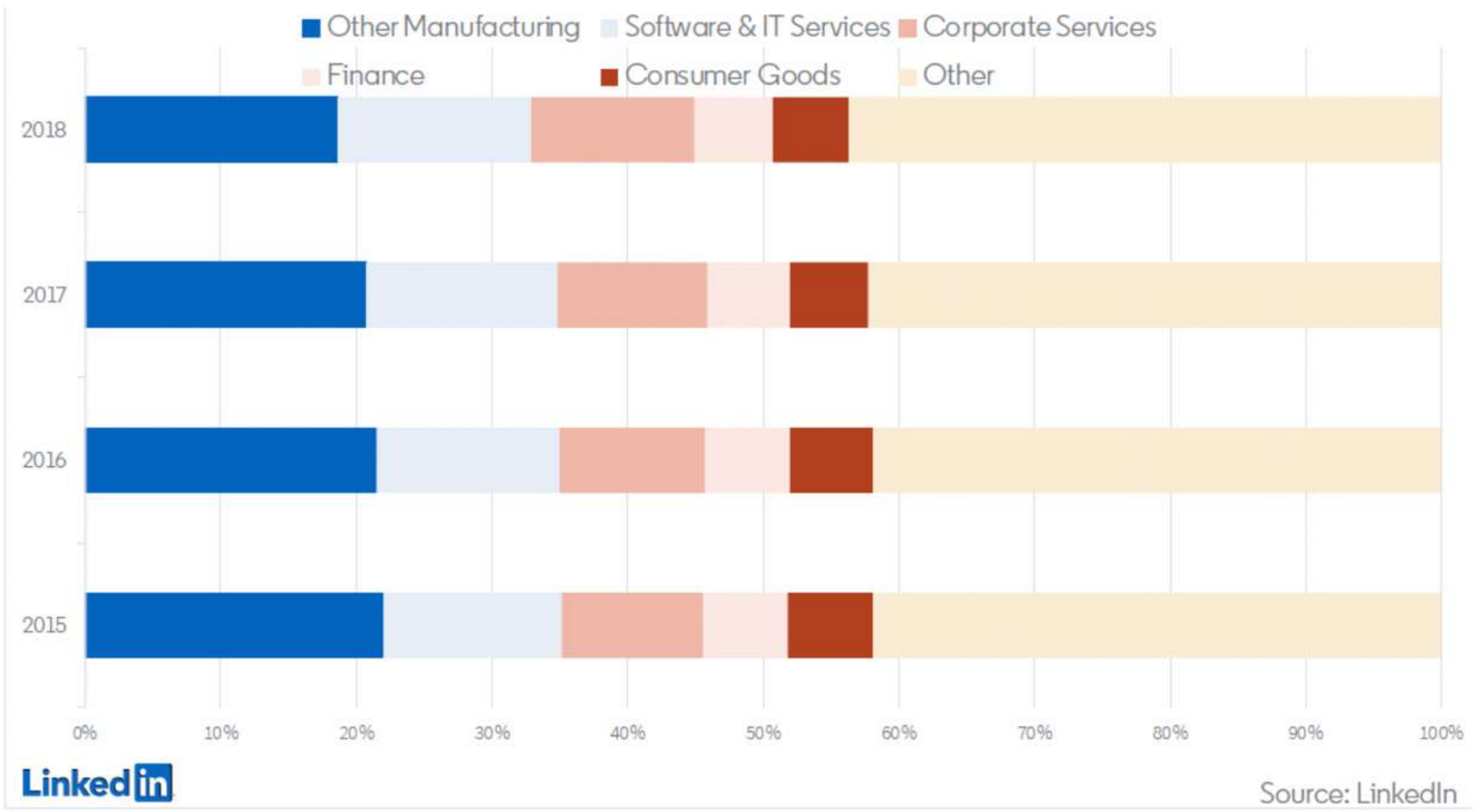


**Figure 3: Main industries drawing from Automotive**

For those leaving automotive, other industries within the Manufacturing industry group are the most attractive, followed by Software & IT Services, and Corporate Services.
The ”Other” bucket in the industry transitions analysis, reflects mainly the transition to: Media & Communications, Retail, Recreation & Travel, Transportation & Logistics, Health Care, Construction, Energy & Mining.


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

Another important analysis performed by LinkedIn related to the Automotive Industry Skills Needs. Because skill requirements are constantly changing, the aim of this analysis was to know what skills workers in the automotive sector were most likely to add each year. Looking at the EU28 automotive skills needs between 2015 and 2018, we found a constant focus on specialised technical skills related to automotive engineering, failure analysis etc. More service-oriented skills feature prominently. There is a consistency in terms of the skills represented in every year.

| 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|
| Automotive | Automotive | Automotive | Automotive |
| Automotive Engineering | Automotive Engineering | Automotive Engineering | Automotive Engineering |
| Automotive Aftermarket | Failure Mode and Effects Analysis (FMEA) | Failure Mode and Effects Analysis (FMEA) | Failure Mode and Effects Analysis (FMEA) |
| Failure Mode and Effects Analysis (FMEA) | Automotive Aftermarket | Automotive Aftermarket | Powertrain |
| Advanced Product Quality Planning (APQP) | Production Part Approval Process (PPAP) | Continuous Improvement | Automotive Aftermarket |
| Production Part Approval Process (PPAP) | Lean Manufacturing | CATIA | Dealer Management |
| Continuous Improvement | Advanced Product Quality Planning (APQP) | Lean Manufacturing | Continuous Improvement |
| Kaizen | Continuous Improvement | 5S | CATIA |
| Lean Manufacturing | Kaizen | Powertrain | 5S |
| 5S | 5S | Advanced Product Quality Planning (APQP) | Lean Manufacturing |

**Figure 4: EU28 Automotive Industry Skills Needs over time**



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

Using the same methodology, LinkedIn performed a global benchmarking exercise, comparing the top represented skills in automotive in Europe in 2019 to other key macro regions. The prominence of service-oriented skills in North America stands out, while the EU has a more technical skills mix that resembles the one in East Asia.

| EU | East Asia & Pacific | North America | Latin America & Caribbean | South Asia |
|---|---|---|---|---|
| Automotive | Automotive | Automotive | Automotive | Automotive |
| Automotive Engineering | Automotive Engineering | Automotive Aftermarket | 5S | Production Part Approval Process (PPAP) |
| Failure Mode and Effects Analysis (FMEA) | Manufacturing | Automotive Repair | Continuous Improvement | CATIA |
| CATIA | CATIA | Automotive Sales | Kaizen | 7 QC Tools |
| Automotive Aftermarket | Advanced Product Quality Planning (APQP) | Customer Retention | Lean Manufacturing | Kaizen |
| Continuous Improvement | Production Part Approval Process (PPAP) | Customer Satisfaction | Failure Mode and Effects Analysis (FMEA) | Failure Mode and Effects Analysis (FMEA) |
| Lean Manufacturing | Continuous Improvement | Manufacturing | Advanced Product Quality Planning (APQP) | Manufacturing |
| 5S | Failure Mode and Effects Analysis (FMEA) | Lean Manufacturing | Production Part Approval Process (PPAP) | Automotive Engineering |
| Production Part Approval Process (PPAP) | Automotive Repair | Continuous Improvement | Manufacturing | Advanced Product Quality Planning (APQP) |
| Manufacturing | Automotive Aftermarket | Root Cause Analysis | PDCA Cycle | Mechanical Engineering |

**Figure 5: Global automotive hubs industry skill needs (2019)**


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