



Policy Paper

# FROM STICK SHIFT TO SKILL SHIFT?

Reskilling of automotive's employees in  
the eyes of the industry's stakeholders

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The transition of the automotive sector will have negative effects on employment in the sector if the changing skill needs will not be addressed by large-scale, targeted up- and reskilling programmes. In the Czech Republic, this could have economy-wide repercussions and endanger one of the biggest employers and industries in the country. The report calls for a coordinated sector-wide strategy for up- and reskilling, following the principles of a just, equitable and sustainable transformation of a core industry in line with the climate policies of the EU and beyond.

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## Executive summary

The transformation of the automotive industry towards electromobility brings about many changes for the industry, the national economy and global competition and supply chains. **Digitization, automatization and decarbonization have been affecting not only the production processes but also the workforce and its desired skillsets.** These trends affect all jobs and skillsets: lower-skilled positions are replaced by machines while medium to high-skilled jobs require more and more expertise in software operations and engineering. This increases the divide between the skill levels in manufacturing, hampering the possibility of skilling up, and increases the fluctuation of employees.

In the Czech Republic, the automotive industry is one of the backbones of the economy, directly employing 3,4% of the workforce<sup>1</sup>. **The current development in the industry puts the employment at risk after 2030** as there will not be enough employees to meet the changing job requirements of the automotive industry. Moreover, the Czech labour market is already stretched thin, and many companies will likely experience trouble finding suitable candidates in this transition. **Out of the current 5,2 million economically active people in Czechia, everyone's job and skill requirements will go through changes by 2030.**<sup>2</sup> The market will also be affected by the growing skill gap, along with a growing age bracket of those without future-proof skills for the emerging sectors and processes.

**If the automotive industry is to remain the stable motor for employment in Europe, large-scale and timely sector-wide and national skill-building and reskilling strategies should be established and implemented.** These developments should also be reflected in the recruitment and retention strategies. Instead of job loss, let us focus on skill shift.

Currently, the automotive employers deal with skill shifts on an *ad hoc* in-house basis, without much planning, or hire new employees. State-supported reskilling programmes are perceived as not targeted and too slow to implement. Therefore, the in-house process seems to be preferred and is financially and administratively supported by the government.

Reskilling could be a shared process. The state would provide a system of reskilling into which the employers could tap and meet the current needs of their employees and production. A sector-wide agreement would be the ideal platform for such efforts and would exercise sufficient leverage against the employers who are not yet keen on reskilling their workforce.

**Nevertheless, there is currently no national strategy for the management of skills and employment in the automotive industry.** A national strategy would not only signal that the industry's workers are an important part of the labour market and a stable economy, it could also survive election cycles and would present a long-term plan.

Moreover, there are benefits to be gained from approaching these efforts in a larger perspective. **The more people are reskilled on an ongoing basis, the more likely there are the right people for the needed jobs.** If workers are dismissed due to their insufficient skill set, a trend which is likely to grow, the impact will be felt throughout the entire labour market. Ultimately, the state has to dedicate more and more financing on unemployment aid, however, this budget could be used to support the businesses in the reskilling process.

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<sup>1</sup> AMSP 2023

<sup>2</sup> Wiedermann et al. 2022

## Policy recommendations

- **Reskilling before redundancy:** Upskilling and reskilling needs to be addressed on an ongoing basis, as soon as possible. A gradual long-term process of reskilling is more sustainable for all involved than *ad hoc*, per-need, brief up and reskilling efforts. A comprehensive, collaborative system of reskilling is desirable, whereby car manufacturers and state bodies cooperate financially and administratively. Such system would bring synergies and make it easier to match people with jobs.
- **Predict and plan changing skill needs:** Collaborative planning and strategy are needed. The government should establish a framework for qualification shifts, the companies would map needed skills, plan and implement the reskilling, and individuals should embrace a more flexible approach to their career paths through lifelong learning. Trade unions should engage in predicting the upcoming changes of skill needs, and could become learning institutions, taking on (a part of) the reskilling efforts in the industry.
- **Formalize the process:** Organising on a sectoral and national level would aid the creation of a strategy for the entire industry. Trade unions should be provided the opportunity to influence this process. A national push for a higher unionisation level would enable and improve this process, protect the employees and strengthen the industry. On a national level, the conversation between the respective stakeholders needs to be formalised in order to be effective, to require reaction of all parties and to generate concrete next steps and tangible outcomes. The unions and the government could then advocate together at the level of the foreign HQs for their position and for the retention of production and employment in the given country.
- **Strengthen the position of the industry:** The local car manufacturers could further strengthen their position by devising a long-term strategy for research and development, innovation and education centres. This would enhance the competitiveness of the local subsidiary and lower the likelihood of transfer of the production to cheaper locations. A partnership between car manufacturers and the educational system would be advantageous, as the manufacturers could assist in the creation of educational programs with practical education, and offer internships and jobs, supporting the transformation of the workforce and its skills over a long-term period.
- **Advance the transition:** Car manufacturers should be incentivised to prepare, disclose and implement their up and reskilling strategies. The more car manufacturers would share these strategies, the less of a competition problem this would be. Additionally, incentivising decarbonisation-related reskilling efforts as soon as possible would expedite the transition towards e-mobility earlier than the predicted 2035 ICE vehicles ban.

## Introduction<sup>3</sup>

The decarbonisation of the automotive industry and its transition to electromobility has many implications at the global and national levels. Competition from China and the US against the European industry is increasing.<sup>4</sup> The Czech automotive industry is of strategic importance to the economy. It is already undergoing a transformation towards cleaner forms of mobility, with electric vehicles making up nearly 13% of all vehicles produced domestically.<sup>5</sup> What impact does this transformation have on existing employees and their required skills? Are there enough retraining opportunities in the Czech Republic and how is the state assisting in this respect? Is there a national strategy to support this development in the labour market? How are the automotive companies responding? And what awaits the industry and its employees in the next decade? These are the main questions that the paper sets to answer.

Specifically, this policy paper (i) assesses the current status quo of employment and the required skillsets in the Czech automotive industry, (ii) presents the implications of megatrends affecting the development of the industry and the nature of work in it, (iii) provides prognoses of development in the coming years, (iv) indicates what options are there for upskilling and reskilling of the workforce and (v) places these issues within the context of the Czech labour market as well as within the international automotive industry context.

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<sup>3</sup> The author wishes to thank the following people for their comments on earlier drafts and assistance with research: Kateřina Davidová, Liljana Cvetanoska, Tatiana Mindeková, Katarína Svitková, Kateřina Machová, Jakub Němec. Additionally, many thanks are due to the interviewed experts who provided a unique perspective, honest assessment and their time towards this research project.

<sup>4</sup> See for example <https://www.iea.org/energy-system/transport/electric-vehicles> and <https://www.seznamzpravy.cz/clanek/ekonomika-byznys-doprava-cinske-elektromobily-zaplavuji-evropu-tradicni-automobilky-nestihaji-reagovat-239416>

<sup>5</sup> AutoSAP 2023, <https://autosap.cz/wp-content/uploads/2021/02/vyroba-elektricky-vozidel-12-2023.pdf>

To assess the above issues the paper relied on the following questions:

- What is the impact of the decarbonisation policies on the Czech automotive industry at present and in the next decade?
- In relation to the ongoing decarbonisation policies in the automotive sector, what are the current changes made to employment and skill requirements?
  - What impact do these have on the local labour market?
- Which stakeholders need to come together and what are their needs in terms of a long-term strategy of employment management and maintenance of the industry's position within the EU and globally?
  - What should such a strategy include and what can the stakeholders do? What concrete policies can be implemented?

The chapters of this paper explore the following:

- Mapping the current state of development of the automotive industry's employment possibilities and needed skills
- Mapping the stakeholders involved in the decision-making in the Czech automotive sector and its employees
- Facilitating a discussion between the involved stakeholders, identify their needs and roadblocks
- Identifying concrete steps to take for state and private actors that would support the decarbonisation transition of the industry, both in short and long term
- Dispersing the fear that decarbonisation means the end of the Czech automotive industry

This study relies on a combination of secondary data, such as the work of Pícl, 2019, Gažo and Smith, 2021, and reports of the Boston Consulting Group. In addition, and to ensure validity of the secondary data sources, the secondary data was triangulated with nine semi-structured interviews. The respondents are automotive industry stakeholders, experts in the researched topic and representatives of governmental bodies.<sup>6</sup>

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<sup>6</sup> As the respondents agreed to take part anonymously, they are identified only through their affiliation in Table 1 in the Annex. The transcripts were analysed using Qualitative Content Analysis.



A large industrial factory floor with multiple robotic arms and car chassis on an assembly line. The scene is filled with complex machinery, including several prominent red robotic arms and yellow overhead cranes. The car chassis are arranged in a line, moving through the assembly process. The overall atmosphere is one of a busy, modern manufacturing environment.

**SETTING THE SCENE:  
CURRENT  
DEVELOPMENTS IN  
THE INDUSTRY**

## The Czech automotive industry in 2024

The Czech automotive industry has been a staple of the Czech economy and even culture for over a century. Besides a historical value, it is an industry of strategic importance, generating 9% of GDP and comprising 24% of the country's export value.<sup>7</sup> It is the single largest Czech industry and presents roughly ¼ of all production in Czechia.<sup>8</sup> Moreover, the automotive sector is directly employing 180,000 people, with the indirect creation of up to 500,000 jobs in adjacent areas such as energy production or textile manufacturing.<sup>9</sup> In the Czech economy, this translates to 3.4% and 9.4% of the economically active population, respectively.<sup>10</sup> With such a presence, it is of little surprise that Czechia is the second largest producer of passenger vehicles per capita in the world.<sup>11</sup>

There are three main car manufacturers within the Czech Republic located in three of the fourteen regions: Škoda Auto (owned by Volkswagen, Germany), Toyota Motor Manufacturing Czech Republic (owned exclusively by Toyota, Japan since 2021) and Hyundai Motor Manufacturing Czech (Hyundai, South Korea). There are over 900 suppliers and, along with indirectly involved businesses, they are located all over the Czech Republic, underscoring the all-encompassing stronghold this industry has over the state.<sup>12</sup>

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<sup>7</sup> AutoSAP 2023 <https://autosap.cz/wp-content/uploads/2021/05/autoprumysl-zustava-pilirem-ceske-ekonomiky-1900x1069.jpg>

<sup>8</sup> Gažo & Smith 2021

<sup>9</sup> AutoSAP 2023 <https://autosap.cz/wp-content/uploads/2021/05/autoprumysl-zustava-pilirem-ceske-ekonomiky-1900x1069.jpg>

<sup>10</sup> AMSP 2023

<sup>11</sup> Gažo & Smith 2021, AutoSAP 2023 <https://autosap.cz/wp-content/uploads/2021/05/ceska-republika-ve-svete-autoprumyslu-1.pdf>

<sup>12</sup> Pícl 2019

Figure 1: Automotive stakeholders, CzechInvest 2023<sup>13</sup>



### What trends are affecting the industry and how?

Whilst the process of transport decarbonisation and transition towards e-mobility is the most apparent in the ongoing public debate, there are multiple other megatrends affecting the daily operations as well as the development of the industry going forward. **Digitization and automation are affecting entire economies.** In the automotive, digitisation is notable in the industry's transition from a "simple" production of means of transport towards a less tangible production of cars as a service and other post-production services. This requires the employees to possess IT and software development skills, more resources are dedicated to post-production tasks, sales, and customer care.<sup>14</sup>

With digitisation comes inevitably also innovation. Car manufacturers commission their suppliers to produce parts of the vehicle, and thus it is often the suppliers who innovate the products and processes. They come up with design and development, gaining the relevant know-how and skills. It is a two-way street, as the manufacturers create a demand for the suppliers' goods and services, while

<sup>13</sup> CzechInvest 2023 [https://www.czechinvest.org/CzechInvest/media/CzechInvest-EN/Key%20sectors/mapa\\_automotive\\_2019-01.jpg?ext=.jpg](https://www.czechinvest.org/CzechInvest/media/CzechInvest-EN/Key%20sectors/mapa_automotive_2019-01.jpg?ext=.jpg)

<sup>14</sup> Pícl 2019, Interview 8

relying on the suppliers' innovation abilities and expertise, sometimes in entirely new sectors, such as car battery production.<sup>15</sup>

Digitization and innovation require further training and even formal education, as some of the new jobs in software development for example cannot be taught in a two-week retraining programme. **At the same time, digitization and automation processes lead to elimination of the jobs with lowest skill requirements.** These are manual, often repetitive tasks that are being replaced by robots. Thus, the human error is almost eliminated in the simplest tasks, whereby those formerly tasked with these jobs now oversee the robots' performance and aid it, e.g., by feeding in materials. The efficiency of one employee may increase as they can oversee multiple machines at once. Simultaneously, questions arise regarding the impact of these developments on the quality and conditions of work, as well as surveillance of employees.<sup>16</sup>

One expert notes that these megatrends are ongoing in the background of the electrification process of the automotive industry. **All these trends are, of course, intertwined and have been in process for many years. The decarbonisation trend has simply been getting the most media attention,** one interviewee said, despite the fact that the result is only a partial and inner transformation of the entire industry, as *"the car industry is staying, only its parts are changing"*.<sup>17</sup>

The most prominent part that is changing is of course the production of electric vehicles. In 2021, EVs made up 3,3% of all cars produced in Czechia, whereas in 2023 the ratio increased to more than 13%.<sup>18</sup> A second marker of decarbonisation is the production of batteries, a sector which has great potential to increase the added value of an economy, strengthen its supply chain, generate know-how and jobs, and attract sizeable foreign investment. Czechia remains at the early stages of the development of battery production industry to date, notably after the rejected proposal of a gigafactory near the West-Bohemian city of Pilsen.<sup>19</sup>

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<sup>15</sup> Interviews 1 and 3

<sup>16</sup> Gažo & Smith 2021, Interview 1

<sup>17</sup> Interview 5

<sup>18</sup> AutoSAP 2023 <https://autosap.cz/aktualita/vyroba-automobilu-roste-bateriove-vozy-z-cr-zaznamenavaji-vyrazny-uspech-i-na-zahranicnich-trzich/>

<sup>19</sup> Further discussion on the battery production industry and pathways is out of scope of this report. For additional resources, see for example <https://europeum.org/en/articles/detail/5520/policy-paper-the-future-is-electric-role-of-visegrad-countries-in-the-ev-battery-supply-chain> ; <https://europeum.org/en/articles/detail/5979/nakladani-s-vozidly-s-ukoncenou-zivotnosti-v-automobilovem-prumyslu-a-prilezitosti-pro-cesko>

## The position of the industry within the Czech economy

The Czech automotive industry has maintained a substantial economic and cultural value over time. The tradition of car manufacturing goes back to more than a hundred years, Škoda Auto is often cited next to beer, Baťa or Havel.<sup>20</sup> Yet, since 2000 Škoda is fully owned by Volkswagen<sup>21</sup> and neither Hyundai nor Toyota have ever been a national company.<sup>22</sup>

This is an important aspect of the “Czech” automotive sector: it is majorly owned by foreign mother companies who hold the decision-making power. The foreign ownership is not untypical for Czech manufacturing industries, as 60% of them are foreign-owned. The automotive industry, in particular, is heavily dependent on European and global supply chains.<sup>23</sup> Such dependence on foreign direct investment is common for countries of Central and Eastern Europe (CEE), with Slovakia, Hungary and the Czech Republic ranking as the top three, respectively, in an index of foreign control in the European automotive industry, presented by professor Pavlínek.<sup>24</sup>

The reason for the three car manufacturers setting up a factory in Czechia back in the 2000s, the interviewed experts note, was the advantageous combination of a qualified labour force and manufacturing know-how, low wages, political stability, membership in the EU, proximity to the German market, as well as desirable state incentives.<sup>25</sup>

Not much has changed since then. Even 6-7 years ago, the low wages were cited as the reason for many companies to set up a factory in Czechia and comparatively, the current local wages are still much lower than in Western Europe.<sup>26</sup> The local industry is, therefore, often titled “an integrated periphery”<sup>27</sup> as there are skilled workers in mainly manual jobs, with the vehicle production remaining local, while the wages are kept low, resulting in a low added value of

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<sup>20</sup> See e.g. here [https://mzv.gov.cz/jakarta/en/economy\\_and\\_trade/finest\\_glassworks/index.html](https://mzv.gov.cz/jakarta/en/economy_and_trade/finest_glassworks/index.html)

<sup>21</sup> <https://www.skoda-storyboard.com/en/press-releases/strong-partnership-25-years-skoda-volkswagen/>

<sup>22</sup> Hyundai Motor Manufacturing Czech is owned by the Korean Hyundai HQ (<https://hyundai-motor.cz/historie-zavodu/>). Toyota Motor Manufacturing Czech is owned by the Japanese Toyota HQ (<https://www.toyotanews.eu/cs/tiskove-zpravy/1897-toyota-se-stava-jediny-vlastnikem-zavodu-v-koline-ponese-nazev-toyota-motor-manufacturing-czech-republic>). See also here:

[https://www.idnes.cz/auto/zpravodajstvi/vlastnici-automobilek.A170924\\_164142\\_automoto\\_taj](https://www.idnes.cz/auto/zpravodajstvi/vlastnici-automobilek.A170924_164142_automoto_taj)

<sup>23</sup> Pícl 2019

<sup>24</sup> Professor Petr Pavlínek is a widely recognised expert on the Czech automotive industry. Index in Pavlínek 2018.

<sup>25</sup> See also Gažo & Smith 2021, Hrubý 2022

<sup>26</sup> Interview 1

<sup>27</sup> A term coined by professor Pavlínek, see e.g. Pavlínek 2021

the local industry. The attractiveness of low wages for foreign companies further perpetuates the idea of a lower-added-value industry.<sup>28</sup> Conversely, the mother companies in the core countries (hereafter also referred to as headquarters or HQ) retain higher-value functions and non-production processes, such as planning, supplier selection and research and development.<sup>29</sup>

The interviewees<sup>30</sup> note a current aim to develop the industry into a higher value-added one to maintain competitiveness on the global market but also to retain the dividends from the HQs within the Czech economy. Upon critical reflection of one of the interviewed experts, it may be that the prices of goods and services are artificially set by car manufacturers who are likely to pressure suppliers to reduce costs due to the added revenues. As a result, the price of goods produced in Czechia will likely not reflect the value of the labour that went into the production, illuminating the flaws of the concept of added value.<sup>31</sup> Such artificial price setting would have a ripple effect on the local wages, keeping them at a low level, a practice in the hands of the HQ which might threaten to relocate their production elsewhere.

There is a clear push for the automotive industry to develop and grow into one that is more digitised and automated, and of course, a decarbonised one. Nevertheless, a balance must be struck between the automatization of the lowest-skilled positions and between the retention of a certain number of migrant workers, as they comprise a large part of the low-skilled workforce in the Czech automotive sector which cannot yet be fully automated.<sup>32</sup> The future of the industry is, however, decided abroad. The next section looks closer the stakeholders that have a say in the industry as well as the decision-making power and hierarchy.

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<sup>28</sup> Drahokoupil et al. 2019

<sup>29</sup> See also Gažo & Smith 2021 and Eder 2021

<sup>30</sup> Interviews 1, 2 and 5

<sup>31</sup> Interview 1

<sup>32</sup> Interview 5

## The stakeholders of the Czech automotive industry

From the level of the European Union, through many Ministries and state bodies, to regional and sectoral actors, there are many institutions and entities comprising the industry and changing its shape and direction. The majority of them, however, deal with innovations in production, development of infrastructure or mobility at large. These are briefly summarised in Table 2 below. Those tasked with employment, skills and the rights of the employees of the industry are discussed in more detail.

The European Union, as arguably the most influential stakeholder in the automotive industry, does not have the mandate to manage employment in Member States, i.e., to intervene in their social and employment policies. It can only resort to soft measures focused on shaping Member States' visions and directing their desired trajectory of development of employment and reskilling policies.

The closest to a social policy is the strategy to maintain, manage, and create employment through the Just Transition Mechanism (JTM). The JTM addresses the regions most in need of financial assistance with their decarbonisation process and contributes to an active labour market policy in Czechia's three coal regions.<sup>33</sup> The Ministry of Environment is in charge of the Just Transition Fund allocation. The fund provides substantial funding for, *inter alia*, reskilling efforts under strategic projects, especially for employees of decarbonizing industries. In the eligible Moravskoslezsky region is located the large Hyundai plant employing roughly 3,000 employees. These employees may engage in reskilling courses through the JTF, although the majority of reskilling funding of the JTF is targeted towards digital skills.

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<sup>33</sup> The Moravskoslezsky, Karlovarsky and Ustecky regions are eligible for the Just Transition funding. See <https://opst.cz/about-the-programme>

Table 2: Stakeholders of the automotive industry

Stakeholder	Strategy or legislation
<b>European Union</b>	Provides a vision of the development of transport in general and of the automotive industry's future. European Green Deal's Fit for 55 <sup>34</sup> package of legislative files, among which are the emission reduction targets for road transport. The most relevant for the automotive industry are upstream emission accounting and the ban on the sale of new internal combustion engine (ICE) vehicles since 2035, as well as the recently amended Euro 7 standard on tailpipe and brake abrasion emissions. <sup>35</sup>
<b>Ministry of Industry and Trade</b>	Maps the challenges and needs of the automotive stakeholders over many years.  National Action Plan on Clean Mobility: sets targets for the number of EVs (passenger cars and buses), charging stations and the share of renewable energy in transport by 2030, including a hydrogen development and regulation framework. The plan does not account for reskilling needs of the employees of the automotive sector beyond one sentence. <sup>36</sup>  In charge of distributing the EUR 9,2 billion of the National Recovery Plan which includes a clean mobility section, mainly focused on charging infrastructure and EV purchases for municipalities and regions. <sup>37</sup>
<b>Ministry of Transport</b>	Mainly focused on the (charging) infrastructure, its dealings directly with the automotive industry are limited.
<b>Ministry of Environment<sup>38</sup></b>	Modernisation Fund <sup>39</sup> , the main financing tool for the EU-ETS affected industries, under which the transport infrastructure is to be improved, along with energy efficiency measures and transport poverty mitigation measures.
<b>Tripartite</b>	Formal meeting of the government, automotive companies, trade unions.

<sup>34</sup> <https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/>

<sup>35</sup> See e.g. <https://www.europarl.europa.eu/news/en/headlines/economy/20221019STO44572/eu-ban-on-sale-of-new-petrol-and-diesel-cars-from-2035-explained> and <https://www.consilium.europa.eu/en/press/press-releases/2023/12/18/euro-7-council-and-parliament-strike-provisional-deal-on-emissions-limits-for-road-vehicles/>

<sup>36</sup> In 2017, the Ministry of Industry and Trade and the Confederation of Industry and Transport signed the Memorandum on the Future of the Automotive Industry in the Czech Republic. The document's objectives have since been largely translated into the Action Plan. (<https://www.mpo.cz/cz/prumysl/zpracovatelsky-prumysl/automobilovy-prumysl/memorandum-o-budoucnosti-automobiloveho-prumyslu-v-cr-a-akcni-plan-o-budoucnosti-automobiloveho-prumyslu-v-cr---> )

<sup>37</sup> National Recovery Plans are a part of the Recovery and Resilience Facility <https://www.planobnovy.cz/o-npo>

<sup>38</sup> The Ministry is also responsible for drafting of the national Social Climate Plan under the Social Climate Fund, due in 2025. The Fund should function as a social protection tool, mitigating the negative aspects of decarbonisation. It remains unclear, however, if the national Plan will allocate some financing towards employment and reskilling in the automotive industry.

<sup>39</sup> The target groups of the Fund are regions, NGOs, universities, companies outside of the automotive industry, as well as households. <https://www.sfzp.cz/en/about-the-modernisation-fund/>



<b>Confederation of Industry and Transport</b>	National association of employers. A Working Group on Clean Mobility has been established, dealing especially with the National Action Plan on Clean Mobility, the bottlenecks to its implementation and the capacities of the Czech transport system to decarbonise.
<b>Association of the Automotive Industry (AutoSAP)</b>	National association of automotive employers, comprising 139 automotive companies, from car manufacturers to suppliers, to universities and other associated businesses. One of the loudest voices of the automotive sector at large. <sup>40</sup>

Besides employer associations, social dialogue is primarily facilitated by trade unions. Czechia is lagging behind Western European standards for the level of unionisation (11,4% of employees were union members in 2018)<sup>41</sup>, but the automotive unionisation rate is higher than an economy-wide average.<sup>42</sup> The biggest trade union is the OS KOVO, uniting around half of all automotive employees and providing them with collective agreements. Škoda Auto used to be a member but separated a decade ago, weakening the position of the union. Similarly, the other car manufacturers also have union representation, while suppliers and smaller companies in the industry are less unionised.<sup>43</sup>

Trade unions are a key player in the conversations between the HQs, the local management and workers. In Czechia, however, the unions' agenda mostly comprises of basic labour rights and working conditions. **A comprehensive, just transformation of the industry is out of scope, at least for now. Additionally, the unions' mandate is constrained by the HQs' ability to move their production to a lower-wage economy or region, resulting in a quasi-competition where workers are internationally compared in a wage race to the bottom.**<sup>44</sup>

Interestingly, the union coverage of the Czech economy has been declining constantly since the 1990s<sup>45</sup>, suggesting that supranational coordination would be beneficial<sup>46</sup> A preceding step would be a formalised sector-wide approach that

<sup>40</sup> Interview 1, Gažo & Smith 2021

<sup>41</sup> Compared to Germany at 16,6 %, Austria at 26,3 %, and Belgium at 49,1%. OECD Stats, latest available data for 2018, [https://stats.oecd.org/Index.aspx?DataSetCode=TUD&utm\\_source=substack&utm\\_medium=email#](https://stats.oecd.org/Index.aspx?DataSetCode=TUD&utm_source=substack&utm_medium=email#)

<sup>42</sup> Gažo & Smith 2021

<sup>43</sup> Gažo & Smith 2021

<sup>44</sup> Gažo & Smith 2021, Interviews 3, 4 and 5

<sup>45</sup> 67,2 % of employees were union members in 1993, only 20,6 % by 2004. OECD Stats [https://stats.oecd.org/Index.aspx?DataSetCode=TUD&utm\\_source=substack&utm\\_medium=email](https://stats.oecd.org/Index.aspx?DataSetCode=TUD&utm_source=substack&utm_medium=email)

<sup>46</sup> Interviews 1, 3, 4

could advocate for sectoral collective agreements. For now, sectoral cooperation takes place informally, as there is no higher-level collective bargaining process.<sup>47</sup>

Besides nationwide stakeholders, there is a strong presence of important entities in the fourteen regions of the country. As the transformation of the industry starts from the level of individual employers and employees, regional as well as sectoral actors are paramount in addressing the development locally. The Employment Office of the Ministry of Labour and Social Affairs provides the tools, know-how and courses for those seeking employment and may cooperate with individual companies of the industry on their active employment policies.<sup>48</sup> The regional governmental bodies connect the region's specificities and needs to the state level.<sup>49</sup>

Additionally, universities provide not only prospective employees but collaborate on industry-specific educational programmes with the car manufacturers. Most well-known is perhaps the Škoda Auto University<sup>50</sup>, but the Technical University of Ostrava<sup>51</sup> is also a long-term partner of the industry not least due to its proximity to the Hyundai manufacturing plant.

In summary, there are many stakeholders involved in the industry with varying degrees of influence and decision-making reach. Many of the existing bodies and legislation in place engage with the decarbonisation of production in the industry (as illustrated in Table 1). **Nevertheless, there is no dedicated platform, group or strategy for the industry's employees, their skills and the changing requirements of their employers.** The funding of the existing entities, therefore, does not go towards these efforts and much conversation is not spent on the topic either. Who could change that is covered in the next section.

### The decision-making power within the industry

As described above, the automotive industry in Czechia is mostly foreign-owned. While this is not all that unusual in a globalised market, where companies are often located in multiple countries with one headquarters, many of the interviewed

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<sup>47</sup> Interviews 1 and 4

<sup>48</sup> More details in the chapter Managing the skill shift.

<sup>49</sup> Interview 5, see also <https://www.uradprace.cz/web/cz/etr-o-uradu-prace>

<sup>50</sup> See e.g. here <https://www.savs.cz/study-and-work-18lp>

<sup>51</sup> See e.g. here <https://kariernicentrum.vsb.cz/cs/akce-a-workshopy/k-speed-dating/hyundai/> and <https://hyundai-motor.cz/o-spolecnosti/spolupracevs/>

experts note a power imbalance in the Czech industry.<sup>52</sup> *“What will be produced in Kolín [in Toyota], in Škoda and in the end also in Nošovice [in Hyundai] is decided outside of the Czech Republic”.*<sup>53</sup>

The local car manufacturers, on account of being mere subsidiaries, follow the orders and plans of the foreign HQs, receiving a yearly budget for the assigned tasks. The main objective of setting up subsidiaries is the further creation of profit, and the HQs are motivated to keep the budgets as economical as possible.<sup>54</sup> They decide what activities will the local subsidiary partake in, what products will be manufactured here and what will be the ratio of core and agency employees.<sup>55</sup> One expert noted that one international company located in Czechia produces mostly under-valued products in the local factory, not generating profit, paying very low taxes and thus strengthening the argument for constantly low wages. Meanwhile, other subsidiaries generate enough profit to keep the entire company afloat.<sup>56</sup>

Besides the dynamic of the market, which should ordinarily lead to such a factory declaring bankruptcy, the state should also oversee the legal and ethical aspects of international companies' behaviour on the local market. In the Czech Republic, however, the state does not intervene much. **There is a constant adjustment between the state's desire to maintain the subsidiary here and the practices of the HQ not benefiting the local economy or the workers.** The HQ's decision-making authority gives leverage to the local subsidiaries in conversations with the state. Interestingly, a representative of a ministry describes this power imbalance as a threat: *“That's just the way it is, and there's always the threat that they're just going to go do [SIC] the investment in another country and you're going to lose it. Yeah, so it's just balancing that, finding that balance. Like when do you keep that [business here] or when do you just say, well, this is a business that I'm going to let go, and they're going to go to Slovakia, Poland, Hungary, potentially Ukraine.”*<sup>57</sup>

On the other hand, the state wields a lot of formal, legislative power. The interviewed representatives of trade unions point out that it could have bigger

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<sup>52</sup> Interviews 1, 3, 4, 5 and 8

<sup>53</sup> Interview 3

<sup>54</sup> Interviews 3 and 4

<sup>55</sup> Interviews 1, 3, 4 and 5. Core employees have a regular employment contract with the subsidiary. Agency workers are legally employed by an agency that “lends” them to various businesses in need of additional employees. This is a very common practice in the automotive industry; more in the sections below.

<sup>56</sup> Interview 3

<sup>57</sup> Interview 5

leverage in discussions with the subsidiaries, but the will is lacking. *“Well, I don't agree [with the state-HQ power imbalance], because even though it [the car manufacturer] is foreign and big and has unlimited financial possibilities, it has to comply with the legislation anyway. So, if the Ministry of Labor [and Social Affairs] and the representative had opened it up to the government, now they have a comfortable majority, and [they would] push it through as it [the power imbalance] is a mere excuse. Of course, they've got completely easy leverage.”*<sup>58</sup>

In their view, the state could provide more support to trade unions who are equipped and tasked with negotiating the best possible conditions for the local factory. Such cooperation would also benefit the state who (self-reportedly) struggles to make the local companies follow rules. This is exemplified in blatant age-based discrimination of workers in some companies, whereby the HQ sets the ratio of core and agency workers and thus allows those agency workers above a certain age to be dismissed based on their impermanent contract.<sup>59</sup>

The question that remains is whether the situation would be different if Škoda were still a Czech company or if there was any other local-owned car manufacturer. There seems to be an ambivalence on the side of the government towards the Czech-based automotive industry as these are private businesses and can receive only so much state support.<sup>60</sup> **At the same time, however, the automotive industry is perceived as too important for the economy, as if it is too big to fail.** Despite this, the trade union representatives expressed dismay, comparing their fight with both the government and the HQs to the situation in Germany, where the state protects the industry and its workers.<sup>61</sup> **Overall, there appears to be a paradox of power imbalance and vacuum, where each stakeholder says they cannot change the behaviour of the other and are lacking support, allowing all of them to wash their hands of much of the responsibility for collaboration and dialogue.**

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<sup>58</sup> Interview 4

<sup>59</sup> Interview 5

<sup>60</sup> Interviews 1, 3 and 4

<sup>61</sup> Interviews 3 and 4



**THE INDUSTRY'S  
EMPLOYEES  
VERSUS THE  
LABOUR MARKET?**

## Working in the automotive industry

The content of everyday paid work in the automotive industry has been changing for a long time. Be it due to digitisation and automation, due to foreign mother companies implementing new management and production systems, or due to improving standards in the place of work and of working conditions. The interviewed experts all note how different the work is in the factories compared to the 30-year-old image the Czech population retains. Nowadays, the factories are clean, warm, there are machines to do the heavy lifting, and there are benefits available to employees. Not all aspects of the employment are positive, however, as the following sections discuss.

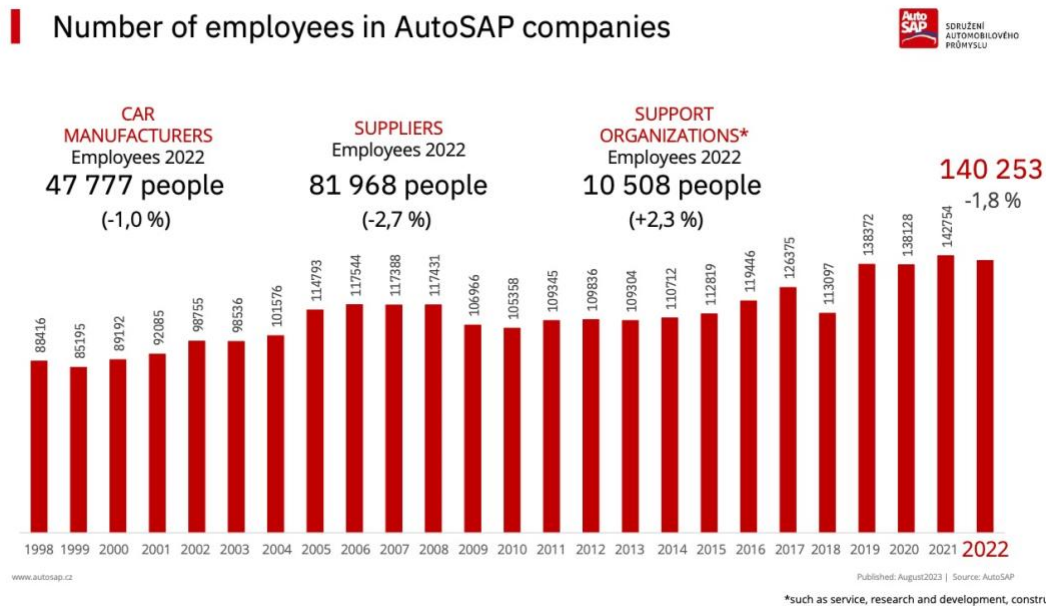
While the car manufacturers are at the forefront of the automotive industry, there are many more employees in the supplier companies. The three manufacturers employ over 41 000 people combined, but there are over 900 supplier companies, of which the three biggest employ roughly 12 300 employees.<sup>62</sup> AutoSAP, whose members make up 77,8% of all automotive employees, shows the division of labour in 2022: 34% of employees are of the car manufacturers, suppliers have 58,6% of employees, and the remaining 7,5% are R&D, services and associated institutions.<sup>63</sup>

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<sup>62</sup> Czech Invest (<https://suppliers.czechinvest.org/>), OEMs' official websites, Gažo & Smith 2021, Pícl 2019

<sup>63</sup> AutoSAP 2023 <https://autosap.cz/zakladni-prehledy-automotive/obecne-zakladni-prehledy/>

Figure 2: Number of employees in automotive companies of AutoSAP<sup>64</sup>



The number of employees in the automotive has been growing since the 1990s as the mother companies started to offshore their production to cheaper locations. While this has been a positive development for the industry, there have also been constant labour and skills shortages. The issue was partially solved by hiring agency workers and migrant workers, as well as through wage increases.

While the initial idea of acquiring agency workers was to even out the ebbs and flows of automotive production and its needs of a certain number of employees, it has turned into a tool used to bend labour legislation and exert the least amount of effort towards the company employees. This is because, ideally, workers hired through the agency would be employed for temporary, one-off positions, potentially for a trial period. After three months they would either not be needed anymore and the agency would send them elsewhere, or they would be hired as core employees.<sup>65</sup>

In reality, however, some companies of the automotive keep agency workers for years on end. This creates a legal way to have a very flexible and disposable workforce. Often, agency workers are also not Czech nationals and have a limited permit for their stay. **This, compiled with the uncertainty of whether the**

<sup>64</sup> AutoSAP 2023 <https://autosap.cz/wp-content/uploads/2021/05/pocet-zamestnancu-ve-firmach-autosap-1536x864.jpg>

<sup>65</sup> Interview 4



**employer will promote them to the core or sack them, makes for subpar and difficult working conditions.<sup>66</sup>**

Moreover, there is a lack of concrete data on how many agency workers are in a given sector of the economy as there are only total numbers of workers per nationality in a given agency.<sup>67</sup> It is apparent that agency and migrant workers form the backbone of the automotive industry. Two speakers' quotes illustrate it: *"So it's just that migrants and agency workers are a buffer for the car industry and are certainly not affected by retraining."<sup>68</sup>* *Foreign workers – let me put it this way. We will always need them. Yeah, we'll always need them. Sure, but it has to be sort of balanced with other options."<sup>69</sup>* **The non-permanent, foreign and precarized workforce of the automotive thus plays a core role in the management of employment of the sector.<sup>70</sup>**

### The contracts and wages

Part-time work contracts would present a more secure employment type in comparison to agency-based employment and would create pension securities for the employees. However, the most common practice is to employ workers based on an Agreement to Perform Work<sup>71</sup> and combine multiple such agreements to generate a full-time commitment and salary. In the end, the employer pays less insurance for the worker, who has fewer rights and will likely have to receive state aid in retirement. This is compounded if the worker is an agency employee and might be terminated earlier due to age-based discrimination.

When it comes to remuneration for the work in the automotive industry, the wages are both high and low. In the context of Europe, compared to Western neighbours, and especially compared to wages of the HQs, the wages are still quite low. The HQ often cite low productivity and added value as a reason why wages cannot be raised, yet the HQ themselves select the lower value-added products to be made here.<sup>72</sup> Such a discussion should be managed by social dialogue, where the local

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<sup>66</sup> Interview 5

<sup>67</sup> Interview 5

<sup>68</sup> Interview 1

<sup>69</sup> Interview 5

<sup>70</sup> Gažo & Smith 2021

<sup>71</sup> Dohoda o provedení práce (DPP) in Czech

<sup>72</sup> Pícl 2019



employers and trade unions could bargain to increase the minimum wage across the sector.

On the other hand, the automotive sector pays quite well on the national level. In 2021, the average automotive wage was a quarter higher than the average Czech wage. There are, nevertheless, great differences within the industry. The three car manufacturers pay above-average wages, while 900+ suppliers of varying sizes pay close to minimum wage, where the bigger the supplier, the better the wages, especially if there is also an R&D department in the company. Therefore, the wage margin of the industry is quite skewed.<sup>73</sup>

Additionally, there is a clear role-divide, as the administration and management roles earn much more than those in manufacturing and production.<sup>74</sup> Overall, however, the wages are high enough to attract workers from other sectors, especially in regions with limited employment options. **To level the playing field both internationally and within the Czech industry, sector-wide bargaining process would have to be established to protect the interests of all employees on all skill-levels.**

### The changing nature of work and skills

There are many studies exploring the job market developments in the automotive sector across the whole EU. Some studies conclude that the net impact on jobs through 2030 will be minor, projected to decrease by less than 1% in the whole industry.<sup>75</sup> Other studies note a mixed employment effect, where many core automotive jobs will be lost while there will be significant job growth in electrification industries.<sup>76</sup> The exact quantitative change in the core industry and the adjacent sectors is not yet set in stone, namely due to changing political decisions and market demand. In 2023, this dynamic was apparent in the Euro 7 standard re-negotiations.

What remains constant throughout all available studies and reports, however, is that there will be great qualitative changes of the work in the industry. **Over time, there will be significant transitions between sectors and job profiles, as well**

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<sup>73</sup> Interview 1

<sup>74</sup> Gažo & Smith 2021, Picl 2019

<sup>75</sup> Kuhlmann et al. 2021

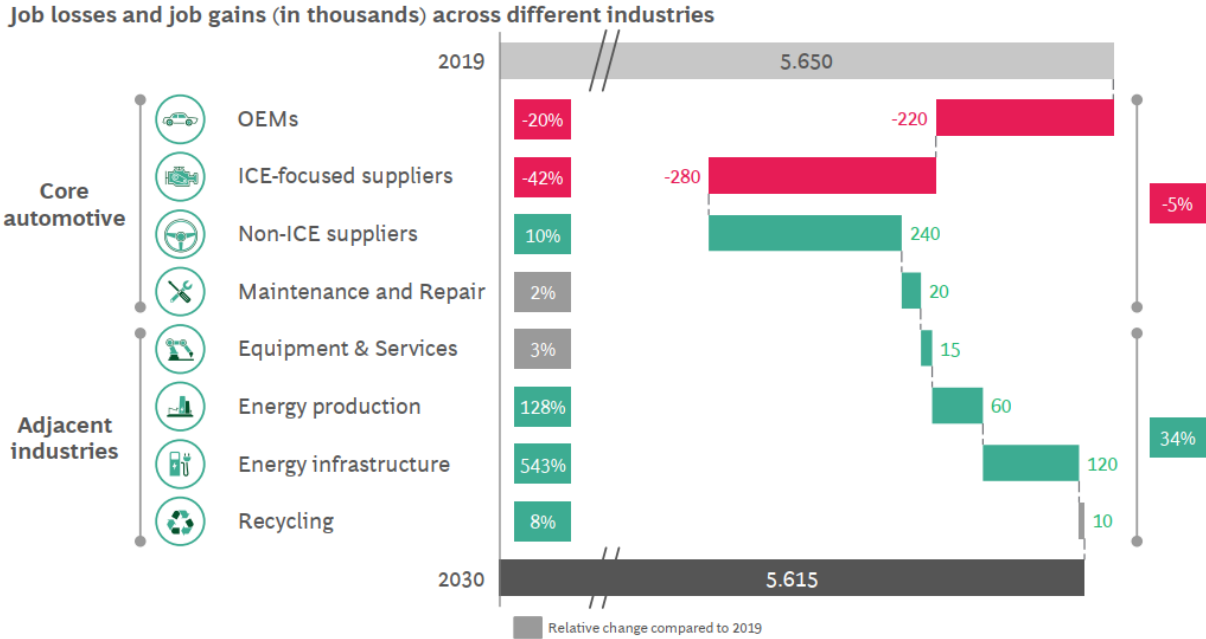
<sup>76</sup> Rennert et al. 2020

**as between regions.** As there are automotive-dependent regions, such as the Stredocesky and Moravskoslezsky regions in Czechia, the transition's effects will spread unevenly within the countries and the EU.<sup>77</sup>

A great illustration of the changes across Europe in sections of the industry and in immediately adjacent sectors is the following graph from BCG's 2021 study<sup>78</sup>:

Figure 3: Job losses and gains in automotive and adjacent industries<sup>79</sup>

EXHIBIT 4 | Decrease for core and increase for adjacent industries



ICE=internal combustion engine; OEM=original equipment manufacturer  
 Source: Eurostat; BCG

Most importantly from this graph, OEMs<sup>80</sup> and ICE-focused suppliers are at risk of an over 60% reduction in jobs until 2030. Meanwhile, due to the legislatively mandated EV focus, non-ICE suppliers and actors in the energy sector will experience enormous growth: note the 543% increase in energy infrastructure. It is important to view these predictions with the perspective that a 500% increase in one sector generates half of the jobs that will be lost in another section's 20%.

<sup>77</sup> Kuhlmann et al. 2021, Drahokoupil et al. 2019  
<sup>78</sup> Kuhlmann et al. 2021, page 6, exhibit 4  
<sup>79</sup> Kuhlmann et al. 2021, p. 6, exhibit 4  
<sup>80</sup> OEM = original equipment manufacturer, i.e., supplier of original parts, such as Bosch, Continental and Valeo (<https://autosap.cz/clenove/>)



This is to say that the core automotive industries remain giants compared to the emerging automotive-related energy production and infrastructure.<sup>81</sup>

As is apparent from the graph and other studies, the uptake of EVs – which require 1/3 of the number of parts compared to ICE vehicles – will both reduce jobs in ICE-focused suppliers and create jobs in the production of batteries, modules and cells. The growing part of high-end vehicles will also contribute to job growth in non-ICE suppliers, as the components are more advanced than in lower-end vehicles. Additionally, jobs in production will be more at risk than jobs in post-production, such as sales and services. The growing demand will create jobs for salespeople and software-based services, while the job disruptions will be pushed up the supply chain towards the highly specialised (often ICE-focused) suppliers who tend to be smaller companies to begin with.<sup>82</sup> These predictions were confirmed by the interviewed experts.

As the megatrends of automation, digitisation and decarbonisation have been affecting the industry for past years, the desirable jobs have changed too. The production of components is already suffering from job loss as fewer parts are needed. A representative of a car manufacturer additionally expressed that there are stricter requirements and demands on individual employees as they move from ICEV to EV production, and there are also soft skills requirements due to the transition towards post-production services.<sup>83</sup>

The experts also noted a larger uptake of automation processes and robots in automotive from 2017 onwards. As previously manual jobs are now replaced by robots, the employees are demoted to a “robot-helper”, feeding the materials into the machines and overseeing the process. Besides the elimination of human error, the job is also partially eliminated, as those aiding the machines cannot services them. In fact, their skill level has decreased due to the robots performing the skilled work, while the next level-up job is out of reach as it requires education in machine maintenance and repairs.

*“And when the robot comes to the same price [SIC] – and the robot works 24 hours a day, Saturdays, Sundays don't concern it, holidays and so on – so it's going to be that*

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<sup>81</sup> Kuhlmann et al. 2021, p. 6, exhibit 4

<sup>82</sup> Gažo & Smith 2021

<sup>83</sup> Interview 8

*confluence of fewer parts and more influence of those robots and artificial intelligence. It has to lead to the fact that the reduction (of jobs) just has to be there.”<sup>84</sup>*

**The introduction of automation thus increases the divide between the skill levels in manufacturing, hampering the possibility of skilling up in one's career.** Up-skilling an employee from a vocational school level to a skilled high school diploma level would have to be assisted by the employer as there would have to be time and money invested. This is not common practice. **Lowest skill level employees experience higher fluctuation due to the relatively easier replacement of their skillset and reduction of positions, rather than reskilling options.**<sup>85</sup> The fluctuation is even more frequent due to the high number of agency workers employed by car manufacturers, especially in low-skilled positions. As a result of the fluctuation and the physical demands of the job, the average age in the industry is very low.

Automation increases the productivity of work and creates demand for higher skilled workers, who have at least a high school diploma and operate machinery compared to work at the conveyor belt. Combined with digitization, there has been an increased need for electrical and mechanical engineers, chemical and especially IT specialists, data collection and analysis, software development, and AI-related work:

*“One practical example is that more employees in the plant have to be retrained and comply with the requirements of Law 250/2021 (Occupational Safety Act) for working with batteries on the production line or during tasks related to servicing electric vehicles.”<sup>86</sup>*

*“But digital skills such as big data management work with AI, software engineering is increasingly going up and from what I can recall this is where also a lot of skills mismatch [SIC] is anticipated if left unaddressed because this is the kind of skills that are required also across other industries which also have been having lots of shortages.”<sup>87</sup>*

For the Czech Republic, the CLEPA study predicts a 54,3% decrease in ICE-related jobs between 2020 and 2040, while the EV focus should generate a 646% job

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<sup>84</sup> Interview 3

<sup>85</sup> Interview 1

<sup>86</sup> Interview 8

<sup>87</sup> Interview 7

increase.<sup>88</sup> In absolute numbers, however, there should not be any change in the total number of jobs in the sector. This study envisages a scenario of heavy focus on EVs in all of the EU, however, the current development indicates rather a continued focus on ICEV production in the local industry, as already mentioned above.

The many ICE-focused suppliers will slowly transition and will likely continue to produce ICE-specific components for non-EU markets. **There might even be a short-term increase in production and jobs as other countries potentially move ICEV production to Czechia. Nevertheless, in a long-term perspective, the suppliers would do well to diversify their products and will be in great need for support throughout the transition.**<sup>89</sup>

The experts also note that the jobs disappearing due to the transformation are of very low quality to begin with. *"I would start by saying that the job quality of the jobs that are there may be sort of seizing over time in existence due to the transition has not been in any way better than average. Usually those would be below average when it comes to quality of employment."*<sup>90</sup>

In conclusion, the quantitative changes in employment in the Czech Republic will be subtle, mostly consisting of a decrease of jobs for lower-skilled positions and an increase in higher-skilled positions. There will be marginally positive effects on the number of jobs across the industry without a great shortage of jobs.<sup>91</sup>

**This might seem as though the transition of the automotive will not be disruptive. It is important to remember, however, that the Czech labour market is already stretched thin, and companies will likely experience trouble finding suitable candidates.** Moreover, all of the aforementioned prognoses operate under the assumption that the automotive workers can simply be moved around from one position to another. This would not be easy in a homogenous field without much development and, without preparation, is impossible in such a heterogenous industry going through this substantial overhaul in a relatively short time span. **If the industry is to remain the "strong and stable motor for employment in Europe"<sup>92</sup>, a large-scale, timely and specific skill-building and reskilling strategy must be put in place.** Instead of job loss, let us then focus on skill shift.

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<sup>88</sup> Rennert et al. 2020, p. 65, figure 69

<sup>89</sup> Gažo & Smith 2021

<sup>90</sup> Interview 7

<sup>91</sup> Černý et al. 2022, Interview 5

<sup>92</sup> Kuhlmann et al. 2021, p.9

## Employment & skill shift in the Czech labour market

The Czech labour market has long been characterised mainly by its low unemployment rate. In 2023, it was mere 2,6%, compared to 6,2% in Slovakia or 3,1% in Germany.<sup>93</sup> Simultaneously, there are many vacant jobs. The ratio of vacant jobs per capita is only higher in three other Member States (AT, BE, DE), with Czechia ranking at 4,9% compared to an EU-average of 2,3%.<sup>94</sup> In May 2023, there were 285 000 vacant jobs in Czechia, while 253 000 economically active people were seeking jobs.<sup>95</sup> Therefore, while there are many available jobs for prospective employees to choose from, many companies struggle to find the right candidates for the vacancies, mainly due to the lack of economically active populations rather than a skill mismatch.<sup>96</sup>

The Ministry of Labour and Social Affairs finds that every 5<sup>th</sup> employer is hindered by a lack of employees. In 53% of the cases, these are large companies, while only 17% of small enterprises experience this issue. The situation is quite severe in the manufacturing industry, where every employer is missing five employees, with 22% of vacancies in this sector. As such, the sector is the fifth worst in the economy.<sup>97</sup> *“But in Czechia this is very specific because the labour market is very, very tight, meaning that you know all the active employment, basically all the people who are in employment or who are seeking employment have already found it.”*<sup>98</sup>

Such a starved labour market also leads to hindered growth of companies in the booming sectors, such as renewable energy companies. The demand for solar panels is growing, yet there are not enough workers with the right skillsets to carry out the economic activity. As one expert pointed out, *“this lack of workers is also slowing down the pace of how we can actually lower the emissions.”*<sup>99</sup> This development shows us yet another reason to invest in upskilling and reskilling on an economy-wide level if we are to reach the climate targets of the EU.

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<sup>93</sup> Evropa v datech 2023. Data table source:

[https://public.tableau.com/views/EvD\\_2023\\_06\\_Trhprce/PracovnthvEU?:language=en-US&:increment\\_view\\_count=no&:embed=y&:sid=&:embed\\_code\\_version=3&:loadOrderID=0&:display\\_count=y&:origin=viz\\_share\\_link](https://public.tableau.com/views/EvD_2023_06_Trhprce/PracovnthvEU?:language=en-US&:increment_view_count=no&:embed=y&:sid=&:embed_code_version=3&:loadOrderID=0&:display_count=y&:origin=viz_share_link)

<sup>94</sup> Wiedermann et al. 2022

<sup>95</sup> Evropa v datech 2023. Data table source:

[https://public.tableau.com/shared/RCKCRR858?:display\\_count=y&:origin=viz\\_share\\_link&:embed=y](https://public.tableau.com/shared/RCKCRR858?:display_count=y&:origin=viz_share_link&:embed=y)

<sup>96</sup> Evropa v datech, 2023; Wiedermann et al. 2022; Interview 5

<sup>97</sup> Bittner et al. 2023, p.5

<sup>98</sup> Interview 7

<sup>99</sup> Interview 7

## Prognoses until 2030: What do we need going forward?

Looking ahead, the Czech-focused Boston Consulting Group 2022 report estimates that **by 2030 there will be 4,2 million people in need of upskilling**, where employees will have to adapt in their profession, as their jobs will continue to be relevant but will undergo changes of content. An additional **1 million people will be in need of reskilling, i.e., learning to perform a new job as their old one will be at risk of demise**. From the 1 million, 330 000 people will lose their jobs, and 340 000 new jobs will be created by 2030. Finally, 190 000 new vacancies will arise in the labour market, and there will likely not be enough economically active citizens to fill these.<sup>100</sup> **This tells us that out of the current 5,2 million economically active people in Czechia, everyone's job and skill requirements will go through changes.** At least 90% of all jobs will require digital skills, there will be a higher demand for crafts- and repair-people, machine operators, and specialists. Currently, 9 out of 10 most demanded jobs are of a manual nature.<sup>101</sup>

**In order to maintain the dynamics of the economy and to meet the needs of employers and the market, large-scale and exponential growth in upskilling and reskilling of employees is necessary.** The current approach is to prioritise administrative and management-level workers who already have a certain skill level. The lower-skilled and unskilled professions are left without many opportunities for upskilling, further increasing the qualification gap and their career growth opportunities.<sup>102</sup>

**As there will be over 2,2 million workers in need of digital and IT skills education, it is paramount that companies and institutions adopt at least some of the suggested policies to enable large-scale upskilling.**<sup>103</sup> These include writing the right to training into legislation, financially supporting the training of low-skilled employees and tradespeople, establishing compulsory investment of a percentage of wages into courses, including these in collective agreements facilitated by trade unions, and co-financing the courses between the state and the companies.<sup>104</sup> The benefit of upskilling, e.g. for digital skills, is that such courses require comparatively little time for a full-scale reskilling.

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<sup>100</sup> Wiedermann et al. 2022, p.9

<sup>101</sup> Bittner et al. 2023, Wiedermann et al. 2022

<sup>102</sup> Wiedermann et al. 2022

<sup>103</sup> Interview 5

<sup>104</sup> Wiedermann et al. 2022

As for reskilling, the efforts will have to be greater. Over 520 000 new vacancies are expected by 2030 which will have to be filled, the majority of which will be in manual labour sectors. The BCG estimates that around 275 000 workers will find new jobs with relative ease, perhaps accompanied by on-the-job training.<sup>105</sup> This leaves 245 000 people in need of reskilling as these will not be able to easily migrate to the newly created positions.

**Therefore, to allocate the right people to the right jobs, the reskilling capacities of the current system will have to be doubled for reskilling courses, tripled for driver's training, and quadrupled for digital training.** Such capacities will have to be accompanied by large investments, whereby the current budget of CZK 120 million per year should be raised to CZK 300-400 million per year. An additional CZK 10 billion is used on unemployment aid. This budget could be reallocated towards a proactive employment policy.<sup>106</sup>

To support the reskilling efforts, tax incentives could be established for companies to reskill employees in-house, synergies between companies with overflow of employees and job vacancies should be facilitated for an exchange of the labour force, as well as subsidies for companies could be conditional upon reskilling of the workforce and placement of expected redundant staff.

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<sup>105</sup> Wiedermann et al. 2022, p. 21

<sup>106</sup> Wiedermann et al. 2022, p.23



## Managing the skill shift in the automotive industry

The existing literature calls for the need to train and reskill the labour force in order to meet the needs of the industry in the transition. **This effort should be a collaborative one, where governments establish a framework for qualification shift, companies map skills, plan and implement the reskilling, and individuals embrace a more flexible approach to their career paths through lifelong learning.** The Just Transition Mechanism could serve as a best practice example for skill shift and job displacement in an entire industry.<sup>107</sup> In an ideal case, when a company ceases its production, a new company would be built in its place and would employ all those displaced due to the phase-out of the company's production.

The interviewed experts concur.<sup>108</sup> **With the current development in the industry, its employment is at risk after 2030.** New R&D and IT centres could provide employment in the future, however, these are not yet established in a sufficient capacity. The lowest skilled positions are most at risk due to robotisation, automation and the use of artificial intelligence. Lowest to unskilled workers will thus likely leave the industry, while the middle to highly skilled workers will keep their jobs. Reskilling and upskilling will still be needed for these skill-groups, but the experts note that i) the state does not do much in this regard, and ii) some workers cannot be reskilled due to their age and capacity. And some workers will not feel incentivised to partake in courses and will leave the company, potentially the country.

The automotive companies should primarily acknowledge this reality in their planning processes, to analyse the implications of their development and the market demand on their workforce. Going forward, the labour market will simply not supply enough employees to meet the changing job requirements.<sup>109</sup> Concretely, larger scale-up and reskilling plans should be established and implemented. These developments should also be reflected in the recruitment and retention strategies. And lastly, employees should be supported in life-long learning as the new approach to their careers.

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<sup>107</sup> Kuhlmann et al. 2021, Gažo & Smith 2021

<sup>108</sup> Interviews 1, 3 and 4

<sup>109</sup> Kuhlmann et al. 2021

## What are the automotive companies already doing about the skill shift?

The Czech car manufacturers seem fairly confident in their ability to survive and even succeed in the transition. There, however, seems to be a slight dichotomy between their stated wants and needs. On the one hand, they would prefer the government to manage the up and reskilling efforts rather than giving more powers to social partners (i.e., trade unions and associations of employers) to be equipped to manage and facilitate the process. **Ideally, the state would provide a coherent conception or a system of reskilling into which the car manufacturers could tap and meet the current needs of their employees and production.**<sup>110</sup>

**On the other hand, employers actually prefer to handle this process on their own through in-house courses.**<sup>111</sup> Provided there is sufficient demand which justifies the creation of new and additional jobs, the employer will upskill their employees according to their current and specific requirements. Such courses may take several hours and mostly comprise additional training for the person's current job. More complex and longer reskilling programmes are not that common, rather a new person is hired, although this depends on the given company: *"The employer has to have the demand to create those jobs, so that's where the employer is going to create those jobs. So they'll train those people and they don't care what the state does or doesn't do, they'll do it the hard way, they'll just rush those people in, train them or hire them."*<sup>112</sup>

**Thus, in the current legislative and practical settings, the employer deals with skill shifts on an *ad hoc* basis, does it in-house, without much planning, or hires new employees. That being said, a comprehensive strategy by the state would be welcome as this process could be a shared one.** The question remains whether the state-led reskilling efforts would be timely and specific enough to meet the requirements of the industry. The next chapter looks at state-led reskilling more closely.

As a concrete example, Škoda Auto has pledged to dedicate EUR 500 million for retraining and job retention in 2022-2030.<sup>113</sup> Per the company's representative, more than 23 000 employees (roughly 63% of their workforce) have been trained

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<sup>110</sup> Interviews 1, 3, 4 and 5

<sup>111</sup> Interviews 1, 8 and 9

<sup>112</sup> Interview 3

<sup>113</sup> Gažo & Smith 2021

in e-mobility so far. The objective, as part of the 'Next Level – Škoda Strategy 2030' plan, is to maintain current employees through the transition to e-mobility in cooperation with the trade union OS KOVO MB. They assess that intensive reskilling courses would take 6 months for the labour force to transition to e-mobility. In a long-term perspective, the curriculum of their associated Škoda Auto High School and University would reflect the exact needs of the manufacturer. This plan is already partially in motion, though further programme changes are needed.<sup>114</sup>

The suppliers of the industry are often smaller companies and many of them are focused on ICEV production. The common practice is for the car manufacturers to commission the suppliers to deliver specific parts. The suppliers then also innovate these products, they have the know-how and, thus, the skilled employees. Therefore, the car manufacturers should be incentivized to help out smaller supplier companies with the up and reskilling process. In the end, they are partners rather than competition. A coordinated effort and synergy would be advantageous, as the manufacturer could facilitate the logistics, and the supplier would bring in the specific know-how. Together, many employees could be up and reskilled.

Trade unions currently do not partake in the reskilling efforts of automotive companies. **The right to on-the-job training would ideally be a part of the collective agreement. A sector-wide agreement would be the ideal platform for such efforts and would exercise sufficient leverage against the employers who are not yet keen on reskilling their entire workforce.**<sup>115</sup>

### What is the state doing for the automotive employees?

As has been illustrated already, the automotive industry is of strategic importance to the Czech economy. It would, therefore, be in the state's best interest to support the management of employment in the core industry and adjacent sectors so as to retain as much of the half million workforce employed as possible. In general, the support should take the form of labour market-wide job-hunting and training platforms to facilitate a smoother conversation between the vacancies and the job seekers. **Additionally, there should be support for part-time employees, older**

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<sup>114</sup> Interview 8

<sup>115</sup> Interview 4

**workers, workers with caring responsibilities, and those unable to retrain.** SMEs<sup>116</sup> should be approached with extra tools and aid, be it know-how or financing, as these companies often lack the analytical and training resources of larger companies – as illustrated above by the example of supplier companies.

**Nevertheless, there is currently no evidence of a national overarching horizontal labour market policy, no comprehensive strategy for the management of skills and employment in the automotive industry.** There is no indication that such a strategy would be in the making either.<sup>117</sup>: *“So the state doesn't know how to deal with this. In my opinion, it is not taking any systemic steps to support the creation or maintenance of jobs in the Czech Republic.”*<sup>118</sup>

**A national strategy would not only signal that the industry's workers are an important part of the labour market and a stable economy, it could also survive election cycles and would present a long-term plan.** Then, all the relevant stakeholders could come together and support the expensive and strenuous process of up and reskilling of essentially the whole population within the next five to ten years, ensuring along the way that the decarbonisation efforts do not displace workers who are not to be blamed for the incoming changes.

The most often used reskilling approach is through an accredited institution. A set of courses organized by the unemployment office is offered to job seekers. The Ministry of Labour and Social Affairs awards accreditation to the provider of the course and thereby controls and vouches for the quality of the course. The job seeker must be registered with the Employment Office to be eligible for participation. These courses are paid by the attendees, but the office offers some financial aid during the course as the attendee is not earning money yet. This is the one case of existing infrastructure for reskilling on the labour market. The Employment Office currently offers over 70 courses in the section Engineering, Welding and Automotive.<sup>119</sup>

**For now, the Ministry of Labour and Social Affairs' main reskilling strategy for automotive companies is to assist them with their in-house reskilling, consisting of providing financial and administrative support to the companies.** As mentioned prior, the companies perceive the state's support to be

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<sup>116</sup> SME = small and medium enterprises

<sup>117</sup> Interview 7

<sup>118</sup> Interview 3

<sup>119</sup> <https://www.uradprace.cz/web/cz/vyhledani-rekvalifikacniho-kurzu>, accessed

inflexible and not always timely, yet the state-side support is regularly accepted, so much so that one interviewee noted the companies are now used to the assistance and will not pursue reskilling on their own.<sup>120</sup>

The experts note it would be desirable to set up a system where an individual can choose a prospective employer, learn the necessary skills during an in-house reskilling course and then start a job with the employer. Not all attendees of the course would need to be hired, the course would be used as a selection process. At the end, only the best candidates would get a job, but all attendees would have been reskilled.

A similar option is already available for job seekers on the Czech labour market and is viewed as the most suitable when it comes to synergies between the state bodies and private companies. The individual can find a reskilling option at the prospective employer or with the accredited institutions. The attendee must prove to the Employment Office that they will then get a job with the new skill set. Once they are hired, the Office may reimburse them for the course, though there is no financial aid during the course.

All of these options are limited in scope and the region of the country, as they vary greatly based on the location of the given companies. There is also a lack of data on the effectiveness of the courses. *"There's been initiatives, but it's... [SIC] I wouldn't say that there's too many to address the urgency of the needs."*<sup>121</sup>

### Capacities for economy-wide reskilling?

The Ministry of Labour and Social Affairs estimates that its current economy-wide reskilling initiative *"I'm in a course"*<sup>122</sup> can reskill 130 000 people between 2023 and 2025. The limit is due to the administrative capacity of the Employment Office which manages the offered courses. Each job seeker may claim up to CZK 50 000 for the purposes of the courses.<sup>123</sup>

In addition to the limited capacity, the national budget for active policy of employment is not sufficient, therefore the EU funds supplement and replace the budget for reskilling programmes. *"Unfortunately, the state budget doesn't give us*

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<sup>120</sup> Interview 5

<sup>121</sup> Interview 7

<sup>122</sup> <https://www.mpsv.cz/web/cz/jsem-v-kurzu>

<sup>123</sup> Representative of the Ministry

*very much for the so-called active employment policy, but thanks to the fact that there are some European funds, we can manage somehow at the moment.*"<sup>124</sup>

The available EU funding mostly comes from the Recovery and Resilience Facility and the Just Transition Fund. Both of these are mainly focused on digital skills, not technical or manual skills. The RRF is strictly for digitalisation, robotisation, IT and Industry 4.0 skills, the JTF deals with digitisation. Currently, the EU funds are used for shorter, 16-hour-long courses. This way, the course squeezes into a weekend and is the most efficient way to educate the population in digitisation – from Word, to Excel, to more complex IT skills.<sup>125</sup>

By simple calculations based on the assessed capacity by the Ministry of Labour, roughly 340 000 people could be reskilled by the end of 2030 through the efforts of their initiative *I'm in a course*.<sup>126</sup> There is an aforementioned need to reskill roughly 2,2 million people in digital competencies by 2030.<sup>127</sup> Therefore, the existing capacity of the state-led courses will cover not even one-fifth of the workforce in need of digital skills, per estimates of the Ministry of Labour.<sup>128</sup> The remaining people in need of reskilling will either have to be trained in-house by companies or will remain without new skills. This does not account for the additional 2 million workers with different upskilling needs (as estimated by the BCG 2022<sup>129</sup> report) that are currently not covered by the EU funds due to the nature of the courses. Therefore, anything beyond digitisation has to be taught by private businesses in-house or through the Employment Office, relying on the limited national budget.

Lastly, the interviewed experts<sup>130</sup> also spoke of the need to reform the educational infrastructure from elementary school, through vocational school all the way to university education. Ideally, the schooling system would foresee the needed and desirable jobs of the future and would offer specialised and targeted programmes which would motivate students to take on the newly emerging jobs. Such system would support the competitiveness of the economy by preparing the population for the jobs of the future, as reskilling courses can only provide limited knowledge, compared to a comprehensive educational programme. Additionally, formal and

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<sup>124</sup> Interview 5

<sup>125</sup> Interview 5

<sup>126</sup> Calculating with the capacity of 43 000 people per year.

<sup>127</sup> Interview 5, as mentioned in the above section 'Prognoses until 2030'.

<sup>128</sup> 340 000 makes up 15,45% out of 2 200 000 people.

<sup>129</sup> Wiedermann et al. 2022

<sup>130</sup> Interviews 1, 3, 5, 7 and 8

theoretical education should be paired with practical training on site of the prospective employer companies. **Currently, however, there are very few such options. There is no e-mobility training, there are no educational programmes for battery production.** While educational reform is quite a long-run solution, it is a core basis on which a healthy economy stands. As one speaker noted, if we do not have the time to save the automotive, the education can still contribute to the development of other sectors.<sup>131</sup>

### Communication platforms and employment management

Since there is no national reskilling strategy for the automotive or for the rest of the labour market, is there potential to develop one? Such effort would have to be a shared, cross-sectoral one, with all relevant stakeholders involved, to reflect that such a strategy is about the labour market, the educational system, the production demand of the manufacturers, the global markets, as well as the political will of the government.

**One platform where such discussion could take place is the Tripartite: the government, trade union and employer trifacta meetings.** The objective is to discuss the challenges of the automotive sector, including for the labour market, not necessarily related to the green transition. The cooperation between social partners is formalised and follows a set of rules. Despite the regularity of the meetings, however, the members discuss mostly what is proposed by the government. They may put a topic up for a debate and share opinions but without any follow-up and mandatory reaction by the government.<sup>132</sup>

An alternative to such communication platform would be a sectoral one, i.e., one level lower than the current Tripartite meetings. While the unionisation of the automotive is high, as mentioned above, there is no such platform. There are working groups, councils and meetings, but nothing industry wide. The stakeholders have to organise informally to set a common approach, then they reach out to relevant governmental bodies for a discussion. Such organising is neither structural, nor paid, it takes a lot of time and, importantly, the governmental bodies are not mandated to listen and respond.

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<sup>131</sup> Interview 3. Further discussion of the educational system is out of scope of this report.

<sup>132</sup> Interview 1

**Organising on a sectoral and national level would aid the creation of the aforementioned strategy for the entire industry.** Ideally, the trade unions would be members of European supervisory boards of the automotive companies. This way, the unions and the state could advocate together at the level of the foreign HQs for their position, for the retention of production and employment in the given country.



A high-angle, wide shot of a multi-lane highway stretching into the distance. The road is empty, with white dashed lane markings and solid edge lines. The highway curves gently to the right. In the background, rolling hills are visible under a hazy, overcast sky. The overall tone is muted and atmospheric.

**WHERE DO WE GO  
FROM HERE?**

## Issues to be tackled and steps to be taken

The current impetus is to develop the automotive industry into one with a higher added value. Through digitisation, decarbonisation and robotisation, the industry shall maintain competitiveness on regional and global markets, whilst retaining the dividend from the companies within the Czech economy. As a result, wages and living standards will increase, and the local industry will gain a stronger position in conversations with the international HQs who wield much of the decision-making power.<sup>133</sup>

At the same time, the HQs and other subsidiaries throughout Europe are likely to outsource their ICEVs production to Czechia. **It is a question of time whether such a decision will be a positive one, as there are still many global markets for ICE vehicles, or whether this is the path to a fossilisation<sup>134</sup> of the Czech automotive.** A partial ownership of the industry by the state could be a solution, which would tackle the power structures and reflect the strategic nature of the industry for the Czech economy. **Then, the state could influence the development of the industry along just and decarbonised pathways.<sup>135</sup>**

More importantly, regardless of whether the Czech automotive industry will continue to produce 13% of EVs or more going forward, **the changing nature of work in the industry is inevitable.** As detailed above, there are multiple global trends affecting the production process and the necessary skillset of virtually every single employee. BCG predicts the share of ICEVs produced in Europe will decrease from 80% in 2020 to 5% by 2030.<sup>136</sup> Car producers will likely reposition themselves from manufacturers to mobility providers, as the ideas of car ownership are changing.<sup>137</sup>

**Especially in the context of the Czech labour market, it is clear that a strategy for the employment management in the industry (and potentially the whole economy) has to be developed.** The current population is aging rapidly, there is already a lack of economically active people, let alone those with the right qualifications and skill sets. Going forward, the skill gap will further increase, along with a growing age bracket of those without future-proof skills. The labour market-

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<sup>133</sup> Pícl 2019, Pavlínek 2021

<sup>134</sup> Excuse the pun.

<sup>135</sup> Eder 2021

<sup>136</sup> Kuhlmann et al. 2021

<sup>137</sup> Gažo & Smith 2021

wide prognoses already tell us that half of the working population will have to undergo some form of training or reskilling.

Additionally, there is a great fluctuation of employees in the automotive industry, as many of them are agency workers. They often form the lowest-skilled to unskilled layer of employees who are the first to be laid off when production slows down. They are also never considered for retraining. Arguably, however, there is already some investment made into these workers when they are hired, such as onboarding and safety training. **Expanding the investment through basic on-the-job upskilling would be profitable**, as they could move from agency to core employment, would likely be motivated to stay longer, the recruitment costs would decrease and the overall stability of the workforce in the industry would improve.

Upskilling and reskilling the workforce would also increase the added value of the local subsidiary. **The more stable, established and educated the subsidiary is, the less likely it will be displaced and terminated.**

Trade unions can also play a significant role, provided they are given the opportunity. **They should engage in predicting the upcoming changes to employment and skill sets, and could become learning institutions, taking on (a part of) the reskilling efforts in the industry.**<sup>138</sup> To gain more friction and clout, the unions should cooperate with other social actors to be able to influence the agenda of the government in employment and social policy. Additionally, unions should reach out to other stakeholders besides car manufacturers such as suppliers and associated businesses.

From the perspective of the entire economy, it would be opportune to include as many employers as possible in the reskilling efforts, since the prognoses show that the state institutions cannot handle the process alone. If the private sector has to reskill 83% of the population in need by 2030, the ideal starting date for this process was yesterday.

**While there might be enough workers with sufficient skills in the industry right now, this will not be the case going forward.** On the one hand, the automotive stakeholders seem capable of reskilling their workforce on their own, on the other, there are benefits to be gained from approaching these efforts in a larger perspective. **Because the more people are reskilled on an ongoing basis,**

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<sup>138</sup> Eder 2021

**the more likely there are the right people for the needed jobs.** Moreover, if workers are dismissed due to their insufficient skill set, a trend which is likely to grow, the impact will be felt throughout the entire labour market. Ultimately, if the state has to dedicate more and more financing on unemployment aid, what financing will be left to support the businesses in the reskilling process?

Curiously, **the impetus to develop a more comprehensive reskilling strategy as well as a roadmap for the development of the automotive industry has been noted in studies, reports and interviews for at least the past six years.** The conversation between the stakeholders of the industry, the state, the trade unions and even the research and advocacy sphere seems to have been going in circles. By now, a comprehensive, overarching labour market policy could have been drafted and on its way towards implementation. The EU-wide path of development has been set, and it is now quite clear as to the direction the industry is heading, at least in the next decade.

The reasons for the lack of a state-level or sectoral approach towards the issues raised in this report could be many. One, the conversation between the respective stakeholders appears to be ineffective. It is either one-directional, informal or without concrete next steps and tangible outcomes.<sup>139</sup>

Two, the relevant data is not readily available, such as direct effects of decarbonisation on the employment in the local automotive industry, the importance of agency and migrant workers in the workforce, the possible options for a worker who desires to increase their skillset and the logistical and legislative hoops one has to jump through.<sup>140</sup>

Three, the automotive stakeholders actually do not seem to want to partake in the reskilling of their workforce, let alone put it in writing into a strategy. The need for certain skillsets illustrates the development of the given company, a direction which is often kept undisclosed in front of the competition. Moreover, as the EU legislation set a clear date for the ICEV phase-out, the path of every single company is the same, reluctantly hurling towards 2035. In this way, the legislation is potentially stunting the natural competition on the market which would present another push to reskill one's workforce, push towards e-mobility and be the best on the market and ahead of everyone else.<sup>141</sup>

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<sup>139</sup> Interviews 1, 3 and 4

<sup>140</sup> Interview 5

<sup>141</sup> Interview 6

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## Annex

Table 1: Overview of Interview participants

<b>Interview 1</b>	08/2023	Online	Research institute, NGO sector
<b>Interview 2</b>	08/2023	Online	Ministry
<b>Interview 3</b>	10/2023	In person	Trade Union
<b>Interview 4</b>	11/2023	In person	Trade Union
<b>Interview 5</b>	09/2023	In person	Ministry
<b>Interview 6</b>	11/2023	Online	Employer association
<b>Interview 7</b>	08/2023	Online	European Institution
<b>Interview 8</b>	09/2023	Online	Trade Union
<b>Interview 9</b>	11/2023	In person	Automotive manufacturer