

G | M | F

IDEAS LEADERSHIP HOPE

Report

# Rethinking Industrial Policy for Central and Eastern Europe

---

Michal Hrubý  
ReThink.CEE Fellowship

June 2024



# Table of Contents

<b>Summary .....</b>	<b>4</b>
<b>Introduction .....</b>	<b>4</b>
<b>The Comeback of Industrial Policy .....</b>	<b>5</b>
<b>Will CEE Manufacturing Stay Strong? .....</b>	<b>12</b>
<b>Key Takeaways and Recommendations .....</b>	<b>19</b>
<b>Conclusion .....</b>	<b>20</b>

## Summary

Central and Eastern Europe (CEE) is increasingly important in the EU's manufacturing landscape. The region's export-oriented economies became an integral part of it through foreign direct investment—supported primarily by EU funding, including Cohesion Policy programs for regional and industrial development, and by national state spending. With its competitiveness at stake, the EU now focuses on industrial policy for cutting-edge technologies with high capital intensity. Many of its new regulations loosen state aid rules to allow generous support by governments to attract investors, which poses a problem for member states with less fiscal room to do so, including the CEE countries.

This report discusses the opportunities and challenges for CEE countries to build manufacturing with potential to grow and to increase domestic value-added. It examines two case studies in the region: batteries and semiconductors, and their position in the value chains in Czechia and Hungary.

Hungary has become one of the EU's leading battery industry hubs and plays a key role in the drive toward self-sufficiency in this field. Its success came principally through government spending on investment promotion. Key issues have arisen regarding the environmental sustainability of new investments, the decision to attract cheap foreign labor without any appropriate long-term labor policy, and the lack of knowledge spillover from multinational companies to small and medium domestic ones to improve their value-chain position. New large investments announced by Chinese companies also raise geopolitical and security issues.

With its broad innovation and R&D strategy and record low unemployment, Czechia did not make attracting large investments a priority before the COVID-19 pandemic. This has changed and its semiconductor industry is well-placed to draw in new investments in the micro- and nanoelectronics value chain. Czechia has started to support the industry through state aid for a handful of domestic and foreign companies, due to its strategic importance, its high value-added in production output, and the opportunity for stimulating R&D and high-skill employment.

These case studies reveal key takeaways for Central and Eastern Europe. First, industrial policy based on state aid in small open economies are costly and will not generate long-term benefits if it is oriented solely at production tasks as in the past. Investment must bring innovation and R&D. Second, CEE countries should make financing innovation and R&D the priority, not subsidizing new manufacturing projects. They should rationalize their policy objectives and update and stick to their national strategies. Third, tight budgets and financial consolidation put pressure on selecting projects for state aid. Governments should not provide this aid without a solid cost-benefit analysis of the investments. Fourth, the CEE countries should consolidate the too broad innovation priorities within their national strategies and analyze their long-term growth potential. Fifth, industrial policy must be accompanied by appropriate labor and education policies to support the green and digital transition.

## Introduction

The EU's competitiveness has been a major part of the European Commission's agenda over the last five years, and it will be a top priority for the next one that will be appointed later this year. New regulations approved in 2023 and 2024 for high-tech and green manufacturing (manufacturing for low-carbon technologies), critical materials, and energy markets aim to direct technological change in the EU. They will also shape the path of its industrial transformation in the face of increased global competition, new geopolitical realities, and unprecedented impacts of climate change. At the same time, industrial policy is back in the spotlight in Europe as elsewhere. The recent loosening of the EU's state-aid rules to allow governments to provide greater industrial support, however, poses a problem for those member states, such as the ones in Central and Eastern Europe (CEE), with less fiscal room to do so.

In this context, it is necessary for the CEE countries to rethink their respective industrial policies by examining past successes and failures, and to apply the lessons to shape the future of their manufacturing competitiveness. However, they cannot rely on the same strategies driven by foreign direct investment as in the past. A strong focus on fabrication tasks within manufacturing, dependence on cheap labor, easy access to energy and workforce, low research and development (R&D) activity, and state aid deployed without a solid cost-benefit analysis are all factors that limit sustained growth. The already well-developed CEE economies cannot rely again on an inflow of investment into energy- and labor-intensive fabrication. Boosting slowing growth will need more than that.

This report highlights the position of the CEE member states<sup>1</sup> within the EU manufacturing landscape, and it discusses the opportunities and challenges for them to build manufacturing with potential to grow and increase domestic value-added. It first introduces key recent changes in economic policies worldwide and the role of CEE countries within the EU. Then, it looks at manufacturing's position in the region and describes the past and present success of industrial and development policies there. The report then examines two policy case studies on manufacturing that is important for today's and, even more so, tomorrow's economy—batteries and semiconductors—and their position in the value chains in Czechia and Hungary. These case studies of manufacturing that can shape the transition toward green and digital industries provide some key takeaways applicable to other countries in the region.

## The Comeback of Industrial Policy

Policy makers in advanced economies, including in the EU and the United States, have been pushing for a comeback of industrial policy to balance economic aims, geopolitical risks, and green and digital transition. The “policy that shall not be named”<sup>2</sup> has implications for maintaining or achieving a competitive advantage, and policy makers have spoken more often about it as the European Parliament and US presidential elections have neared. The Organization for Economic Co-operation and Development defines industrial policy broadly as a policy encompassing all instruments and tools that structurally improve performance in a domestic business sector.<sup>3</sup> Industrial policy

includes a specific strategy consistently pursued through policy instruments to reach its goals. These instruments affect the domestic business sector's performance through demand, supply, and governance. Within-industry supply tools, such as financial incentives and access to inputs, have received the most attention lately.

Industrial policy is common worldwide, especially in emerging and developing countries, yet the advanced transatlantic economies have tried for many years to shake off the temptation of applying supposedly inefficient, market-distorting tools to instead let the markets rule. The Washington Consensus promoted trade and investment liberalization, privatization of state-owned enterprises, and deregulation of market-impeding frameworks. It mainly was the global financial crisis 15 years ago that sparked a new interest in market interventions enacted by individual countries, which later surged in reaction to the COVID-19 pandemic.<sup>4</sup> The EU and the United States are no exception, and they have paved the way for a new economic policy paradigm for advanced economies through industrial policy. Questions surrounding strategic resilience, high stakes due to ongoing deindustrialization, foreign trade dependencies, and the global economic impact of the People's Republic of China (PRC) all have contributed to their renewed interest in industrial policy.

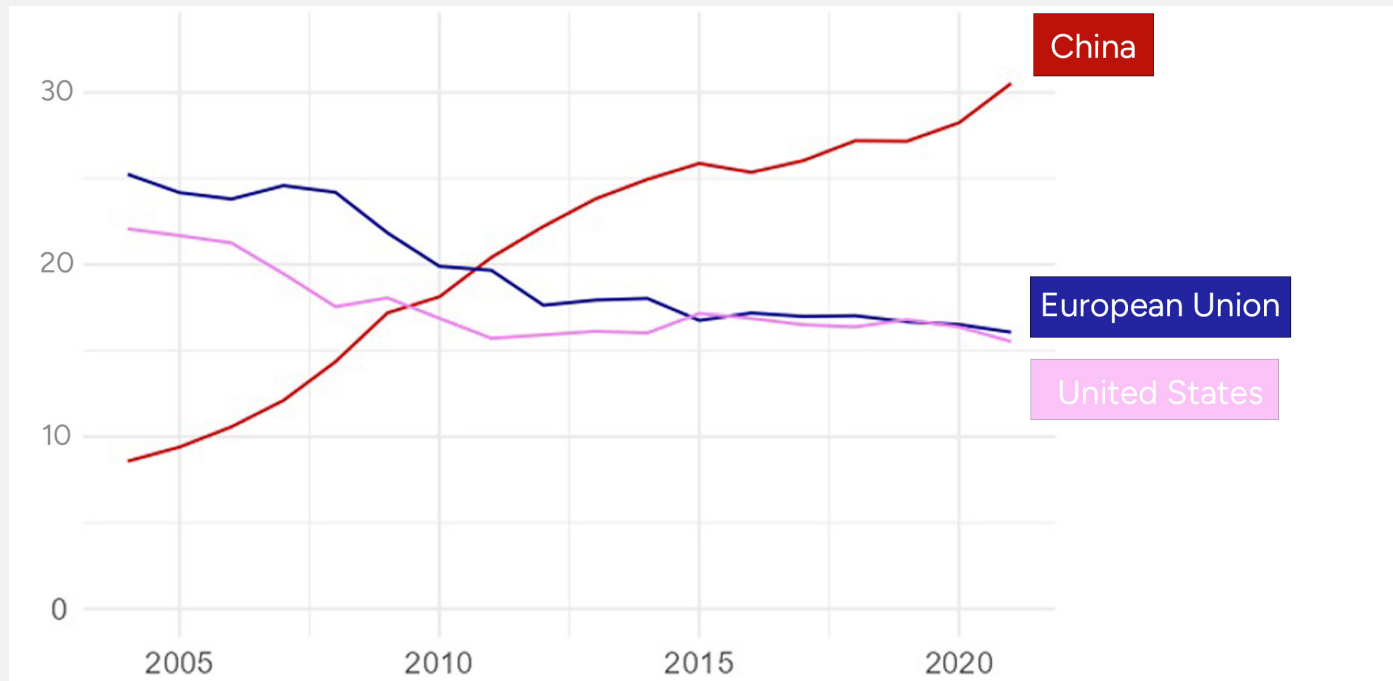
## The State of Global Manufacturing

The world has experienced a structural change with impacts on global manufacturing in the last decades, followed by a realization of the consequences in the past four years. The respective shares of the EU and United States in global manufacturing value-added have steadily decreased over the last two decades (see Figure 1). In contrast, the PRC's share has significantly increased since it joined the World Trade Organization in 2001. This growth has translated into the PRC reaching a share of global manufacturing value-added equal to the sum of those of the EU and the United States by 2021. Although market interventions have been increasing across the globe for more than a decade (and have been ever-present in the PRC), only the aftermath of the COVID-19 pandemic and Russia's full invasion of Ukraine in 2022 prompted real action by the EU, whereas the United States had been coping with the "China shock" through various policies for many years already.

The EU and the United States are now translating their renewed interest in industrial policy into actions. Keen to ensure economic recovery and growth as well as to counter Beijing's industrial policy, they seek to intervene in markets and shape new industrial structures for a dual green and digital transformation as part of their security and resilience challenges. The adoption of the Inflation Reduction Act<sup>5</sup> and the Chips and Science Act in 2022<sup>6</sup> in the United States prompted the EU to introduce the European Chips Act<sup>7</sup> in 2022 and the Green Deal Industrial Plan<sup>8</sup> and its building block, the Net Zero Industry Act (NZIA),<sup>9</sup> in 2023. These measures are their answer to Beijing's industrial policy, and they aim to steer industrial development and green transition with a pinch of *dirigisme*.<sup>10</sup>

While they are accompanied by a climate narrative, these new policies aim to prevent deindustrialization, to kick-start reindustrialization, and to re-shore activities in "like-minded" countries. The EU and the United States initially did not coordinate these steps, which led to increased tension between them. The EU's Green Deal Industrial Plan responded to the US Inflation Reduction Act, which has a protectionist element in the form of a boost for the domestic market and local production with "Buy American" quotas. Hence, for the EU its new policy is

Figure 1: Share of Global Manufacturing Value-Added (%), 2004–2021.



Source: Author's calculations based on The World Bank Open Data, in US dollar current prices. Accessed May 2024.

crucial not only for the timely delivery of the goals of the Green Deal but also for strengthening the resilience and competitiveness of European businesses in a changing geopolitical environment.<sup>11</sup>

## A Region Between Giants

There is a risk of fragmentation of priorities inside the EU in the face of a new trilemma: achieving the green and digital transition, balancing economic security, and maintaining fiscal discipline.<sup>12</sup> While they understand the importance and urgency of green and digital transition, the member states also see the need to balance their economic security through re-shoring and building new supply-chain structures. At the same time, they consider government budget constraints, or how to spend more without increasing debt too much. Although the EU acknowledges this challenge, it also faces the ongoing one of securing a just and fair transition for those member states converging toward the EU's average level of prosperity and have tight fiscal room. Therefore, the EU's Cohesion Policy still has a key role to play. In this context Central and Eastern Europe finds itself in a difficult starting position for recovery and building resilience after the pandemic and supply shocks related to the war in Ukraine, including higher prices and decreased availability of energy.

In the past, the driving force for the EU convergence of CEE economies was foreign direct investment and supply-chain integration. These countries' joining the Single Market opened opportunities for attracting foreign investors and capital movement. They also had an abundant and cheap labor force and access to energy, lower corporate taxes, and well-established investment-promotion tools.<sup>13</sup> The investments they attracted boosted growth, but also led to concerns about their economies becoming only an assembly line of foreign-owned companies without prospects for higher value-added activities in the future. The recovery from the global financial crisis in the 2010s and the recent macroeconomic shocks slowed their growth and led to their uneven recovery trajectories since 2021. Many have flagged the risks of their high reliance on foreign-owned enterprises for most manufacturing exports and of possible lower growth in labor productivity compared to the advanced EU economies, a specific CEE version of the middle-income trap. Although the foreign investments continue to flow, these already matured economies would need increased value-added tasks, not only fabrication, to prolong their growth.

## An Integral Part of EU Manufacturing

Central and Eastern Europe has transformed itself into a region with a solid manufacturing base over the last decades. Since 2004, the CEE countries increased their share of the EU's manufacturing value-added by 60%, which today stands at 14%.<sup>14</sup> In many aspects, the region has been considered de facto an integrated periphery<sup>15</sup> of the EU in manufacturing, with an increasingly important role as a supplier of manufacturing inputs and final products to Western Europe and further afield. Manufacturing inputs play an even more critical role for the CEE economies than final products as they supply final producers worldwide. Manufacturing, hence, has become a key part of the region's economy, which is now fully integrated with Western Europe. Three points stand out in this regard.

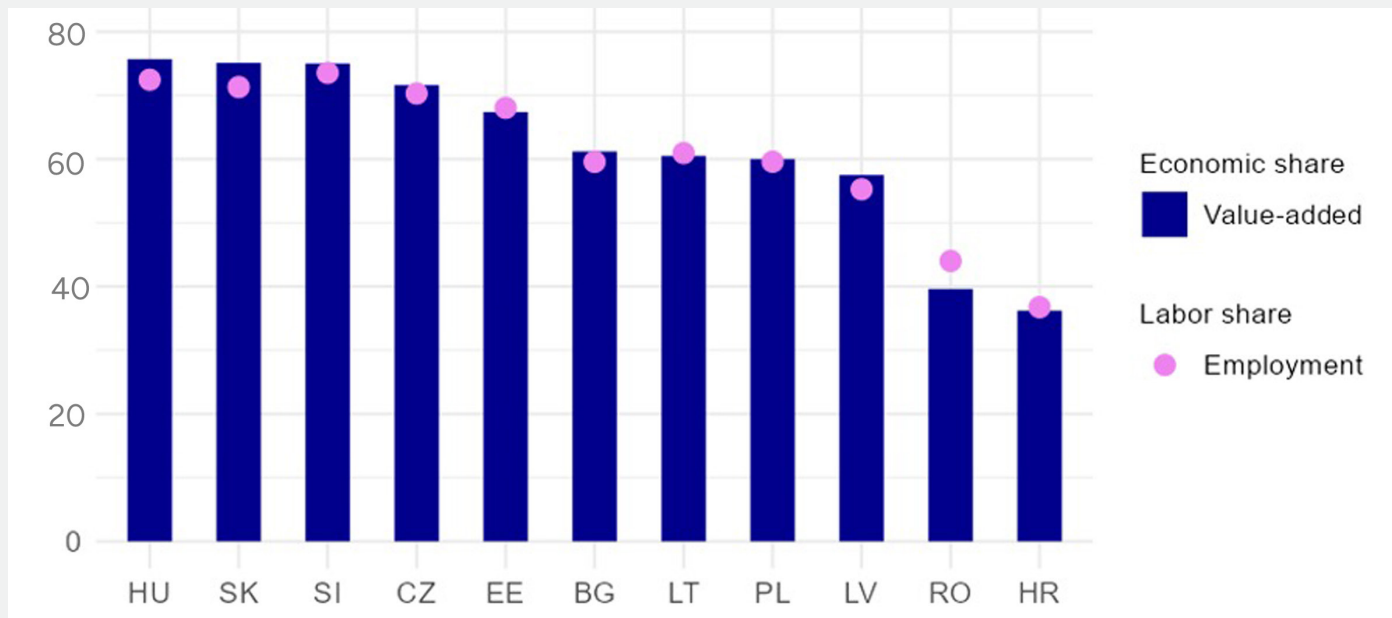
First, manufacturing accounts for 20% of the CEE countries' collective GDP, compared to 16% for the rest of the EU, with a relatively stable structure for almost 20 years.<sup>16</sup> Czechia is the most industrialized CEE country and benefits highly from proximity to other EU markets, and particularly from close trade ties with Germany, the EU's economic leader. However, in both countries manufacturing's share of GDP has decreased since 2016 to record lows in the post-covid recovery: 23% in Czechia and 20% in Hungary in 2022.

Second, manufacturing comprises different activities and functions, including pre-production (design, headquarters), fabrication, and post-production (technical support, trade services), and Central and Eastern Europe has achieved a functional specialization in fabrication activities as well as a well-performing technical support function. While technical support belongs to a post-production function with the possibility of attaining higher value-added, the region's core specialization in fabrication usually relates to lower value-added activities. Higher value-added activities, including R&D, business services, and headquarters, are found outside the region.<sup>17</sup>

Third, a large part of all the value-added and employment in CEE manufacturing depends on foreign final demand as the result of export-oriented production. As Figure 2 shows, the dependence of manufacturing value-added on foreign demand ranges from 76% in Hungary and 75% in Slovakia and Slovenia to 40% in Romania and 36% in Croatia. Manufacturing employment varies similarly when it comes to dependence on foreign demand, from 74% in Slovenia and 72% in Hungary down to 37% in Croatia.



Figure 2: Dependence of Domestic Manufacturing on Foreign Final Demand (%), 2020.



Note: HU—Hungary, SK—Slovakia, SI—Slovenia, CZ—Czechia, EE—Estonia, BG—Bulgaria, LT—Lithuania, PL—Poland, LV—Latvia, RO—Romania, HR—Croatia.

Source: Author's calculations based on OECD databases of Trade in Value-Added and Trade in Employment (2023 editions). Accessed May 2024.

Hence, Central and Eastern Europe produces significant manufacturing value from lower value-added activities, resulting in output mainly demanded by foreign markets, largely within the EU. Moreover, manufacturing accounts for a large share of the workforce and capital across the region. As the EU faces its most extensive industrial transformation in decades, the green and digital transition is also raising some concerns about its unequal impacts on prosperity for the member states, in particular in Central and Eastern Europe. However, EU Cohesion Policy programs already address many of these concerns. The CEE countries have long benefited from the EU instruments to boost infrastructure, energy, and the development of different regions within their countries, and they have also been able to deploy state aid. These tools have helped them to pursue quasi industrial policies already.

## Industrial Policy in the Past

The Single Market is a “default setting” and building block of EU industrial policy. Within this framework, the EU pursues its industrial objectives, including the economic integration of Central and Eastern Europe, without

harming other goals, including those from its competition, trade, and innovation policies. Therefore, the CEE member states could not introduce any comprehensive industrial policy that would violate the Single Market rules. In joining the Single Market, they delegated most of industrial policy decision-making to the EU. Three types of instruments are used to keep the EU competitive, but not all of them support and protect CEE industries from falling behind those of the Western European member states.

First, there are EU-wide programs and initiatives that support the status quo in levels of economic convergence. But these also risk further widening the gap between leaders and laggards. Horizon Europe (previously Horizon 2020) is the crucial EU framework and tool for financing industrial competitiveness through green and digital innovations. It offers substantial finance through competitively selected projects, but it does not discriminate between countries with different levels of convergence. The program broadly supports current economic and industrial strength across the EU. The same applies to the EU-wide initiative of Important Projects of Common European Interest, which allows member states to significantly contribute with state aid to private investments in innovative and breakthrough manufacturing in multi-country projects. Although there have been successful important projects involving CEE companies, most have involved companies from Western Europe and allocated higher amounts of state aid accordingly. The EU Innovation Fund is another example where the region has had little chance to succeed in the competitive project selection against projects from Western Europe that were better prepared by foreign companies with increased financing opportunities and capabilities—and which, in many cases, are the ultimate owners of CEE companies.

Second, some EU-wide programs specifically aiming to close the convergence gap push the industrial transformation in Central and Eastern Europe. The EU allocates almost a third of its Multiannual Financial Framework to regional cohesion programs. The CEE countries largely benefit from this, including through the European Regional Development Fund, the Cohesion Fund, and the Just Transition Fund for regions most affected by the industrial transformation.<sup>18</sup> In pursuing the goals of the EU Cohesion Policy, these programs have chiefly addressed the questions of infrastructure, energy, and transport. NextGenerationEU, a post-pandemic financial recovery package, opened new opportunities, which are delivered through the Recovery and Resilience Facility (and its REPowerEU chapter), and primarily supports the redistribution of financial support toward lower-income member states, including the CEE ones,<sup>19</sup> conditional on structural and institutional reforms.

### **Overall, Central and Eastern Europe benefits from public support to industry mostly through EU financing rather than state aid.**

Third, CEE governments deploy national financing through state aid within the boundaries of EU competition rules.<sup>20</sup> State aid takes many forms, yet some of the most significant part flows through investment promotion and foreign direct investment strategies that aim to support the development of subnational regions. Other forms of state aid enhance R&D and innovation potential, green and digital transition, and specific areas of public procurement, among other things.<sup>21</sup> The CEE governments set the framework conditions for support or choose which industries, projects, or firms to support on a case-by-case basis.

# Rethinking Industrial Policy for Central and Eastern Europe

Overall, Central and Eastern Europe benefits from public support to industry mostly through EU financing rather than state aid. However, with the new EU's approach to the ongoing industrial transformation, member states will necessarily rely on increased national spending. The EU is loosening its rules regarding state aid and the economic policy paradigm is shifting from EU policies to more spending at the country level.

## New Industrial Policy

Central and Eastern Europe faces a great challenge in maintaining and financing its industrial competitiveness amid the green and digital industrial transformation, which has been exacerbated by the COVID-19 and energy crises as well as by geopolitical change. The new industrial policy set through the Net Zero Industry Act and the European Chips Act aims to significantly improve the EU's domestic manufacturing capacity and to maintain industrial competitiveness at the level of the union, with less attention paid to development in individual members. These acts target two challenges of the new trilemma—the green and digital transition and economic security—while the third—fiscal discipline—remains an issue. The overarching Green Deal Industrial Plan introduces only a little new EU finance and largely relies on reshuffling or repurposing existing financial instruments. The European Chips Act also largely depends on existing EU instruments with limited budgets and will promote state aid for new innovative projects by enabling governments to contribute to private investments in increased amount with less restrictive notification rules. Both acts aim to lower the number of regulatory steps including the permission processes.

The NZIA and the European Chips Act are ambitious, and their objectives should be fulfilled by inducing private investments through new priorities of state aid and other existing EU instruments. The NZIA aims to achieve 40% production self-sufficiency relative to local demand in 2030 across almost 20 technology categories, from batteries and energy storage to solar and wind and carbon capture and storage. The European Chips Act's goal is to increase the EU's share of global production from 10% currently to 20% by 2030. Policymakers expected the Green Deal Industrial Plan and other initiatives to be complemented by a new EU Sovereignty Fund that the European Commission was considering and would be a medium-term, structural solution for financing the green and digital transition. Instead, the EU launched a Strategic Technologies for Europe Platform<sup>22</sup>—a combination of existing EU financial tools including InvestEU, Horizon Europe, the Innovation Fund, and the European Defense Fund—whereas the European Chips Act relies on a combination of tools, including InvestEU, Horizon Europe, and the Digital Europe program. Most of the public support to green and digital technologies manufacturing should hence come from state aid, including the Important Projects of Common European Interest for innovative projects and the Temporary Crisis and Transition Framework<sup>23</sup> for state-of-the-art projects.

Less developed and assisted regions and transition territories across the member states are eligible for higher aid intensity (the ratio of aid to total investment) than developed ones, which could help the CEE countries attract investments. Although the new regulations and frameworks greatly loosen the state-aid rules, they also include the objective of safeguarding cohesion. New projects in the selected locations can benefit from higher EU co-financing through cohesion programs, and the concerned member states could also make higher national contributions under the state-aid rules. Although these rules are appropriate for supporting the Cohesion Policy goals, new manufacturing projects in green and digital technologies are extremely capital-intensive, and it is

questionable whether the advantage of slightly higher allowed state aid will make a difference and attract private investments into Central and Eastern Europe.

In 2023, the European Council tasked Enrico Letta, Italy's former prime minister to prepare report on the state of the Single Market. The report, published in April 2024, proposes a new mechanism of pan-European "state aid contributions" to a common EU pool that would be run by the European Commission.<sup>24</sup> The intention is to boost public investment, and ensure fair state aid use within the EU and to support cohesion goals. Another imminent report on EU competitiveness by Mario Draghi, another former prime minister of Italy and former president of the European Central Bank, will complement the Letta report. It will focus on scaling up EU industry, self-sufficiency in critical supplies, and investments.<sup>25</sup> But, in any event, it will remain up to each member state to formulate its industrial policy priorities to pursue its growth and development objectives. Each one should be aware of its opportunities and threats.

## Will CEE Manufacturing Stay Strong?

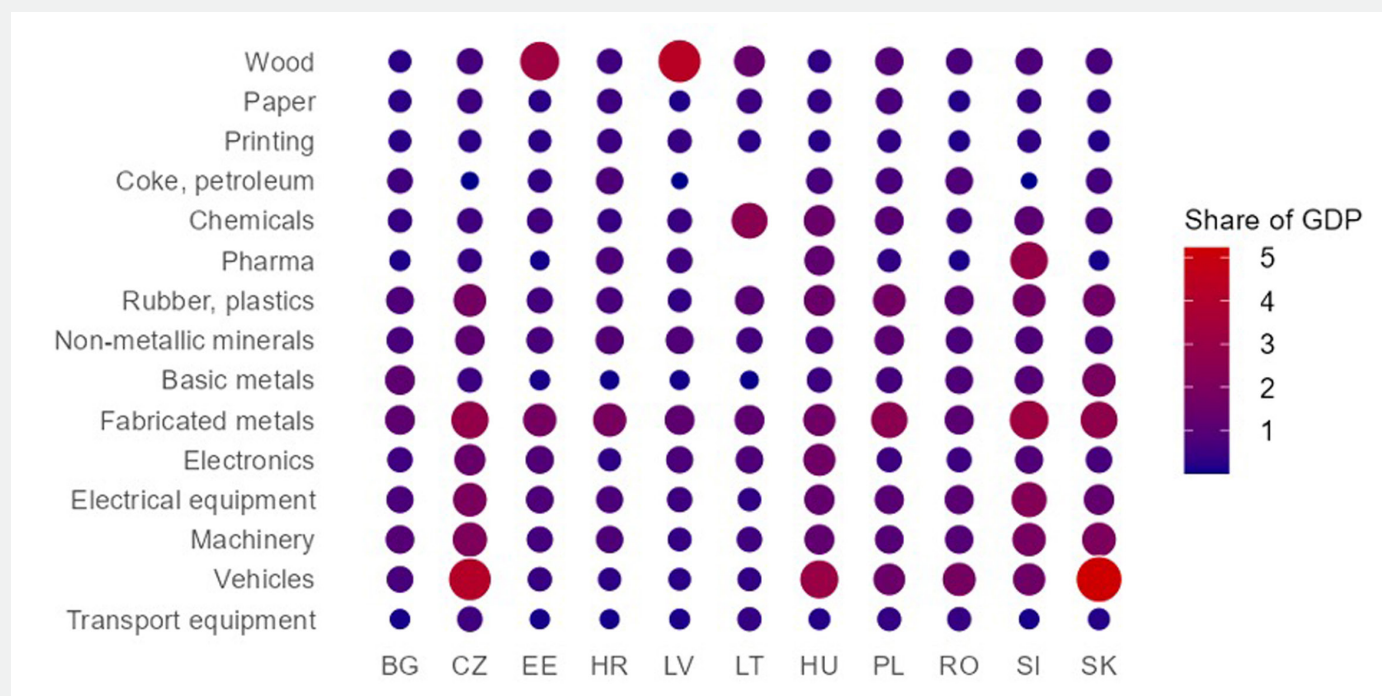
Although industrial policy may consist of strategies that deploy several policy tools, each strategy should have a straightforward and narrow objective with an underlying rationale. It would be naïve to aim to enhance domestic exports, to increase innovation activity, to attract investments, to increase skilled labor's share in the labor market, and to make risk-finance available all at once across time and industries within a single industrial policy document.<sup>26</sup> Hence, strategies must aim to achieve specific key project indicators and complement each other without overlaps and confusion. With the recent push for new manufacturing projects, existing comparative advantages and economic structures matter. They can help governments pursue vertical strategies to support specific industries and firms and horizontal strategies to support all domestic businesses.

It is not possible to generalize and offer a one-size-fits-all approach to industrial policy, although a couple of general points emerge. First, export promotion is a good way to enhance domestic production capabilities and innovation activity as firms increase their reach and market size simultaneously with increased competition. Import substitution may have fewer positive impacts if not based on solid innovation grounds.<sup>27</sup> Second, industries do not make huge leaps over the short term. The effects of industrial policy on exports and domestic capabilities take time to appear, as any change is primarily incremental and path-dependent. A country's specialization and comparative advantage are "sticky" over time.<sup>28</sup> Third, the CEE countries must carefully assess the current state of their manufacturing and its opportunities and challenges to decide whether to support existing manufacturing activities or to start building new ones.

Figure 3 shows the broad industrial structure in CEE countries and identifies which industries are essential for their GDP. For example, auto production is Czechia's key manufacturing industry. Rather than maintaining their exact industrial structure, they may be tempted by the recent push by industry to consider policies to support innovative green and digital industries while leaving some traditional companies and industries to their fate without additional state aid.

## Rethinking Industrial Policy for Central and Eastern Europe

Figure 3: Manufacturing Activities' Share of GDP in CEE (%), 2021.



Note: BG—Bulgaria, CZ—Czechia, EE—Estonia, HR—Croatia, LV—Latvia, LT—Lithuania, HU—Hungary, PL—Poland, RO—Romania, SI—Slovenia, SK—Slovakia; ordered by NACE manufacturing activities (C16 to C30) and Eurostat’s country order; no data on Coke, petroleum (C19) and Pharma (C21) in LT

Source: Author’s calculations based on Eurostat. (2024). National accounts aggregates by industry. Accessed May 2024.

The green and digital transition draws attention toward “niche” or emerging manufacturers in Central and Eastern Europe. Therefore, the next sections focus on industrial development in Czechia and Hungary by looking at their emerging battery and semiconductor industries respectively, which the two governments prioritize in their industrial policy and the EU deems critical for its future manufacturing capacity and competitiveness. These case studies explain how these governments use different policy tools to enhance these industries and assess their relative success. They also point to a lack of cost-benefit analyses to assess whether these investments will be beneficial for growth and development in the long term.

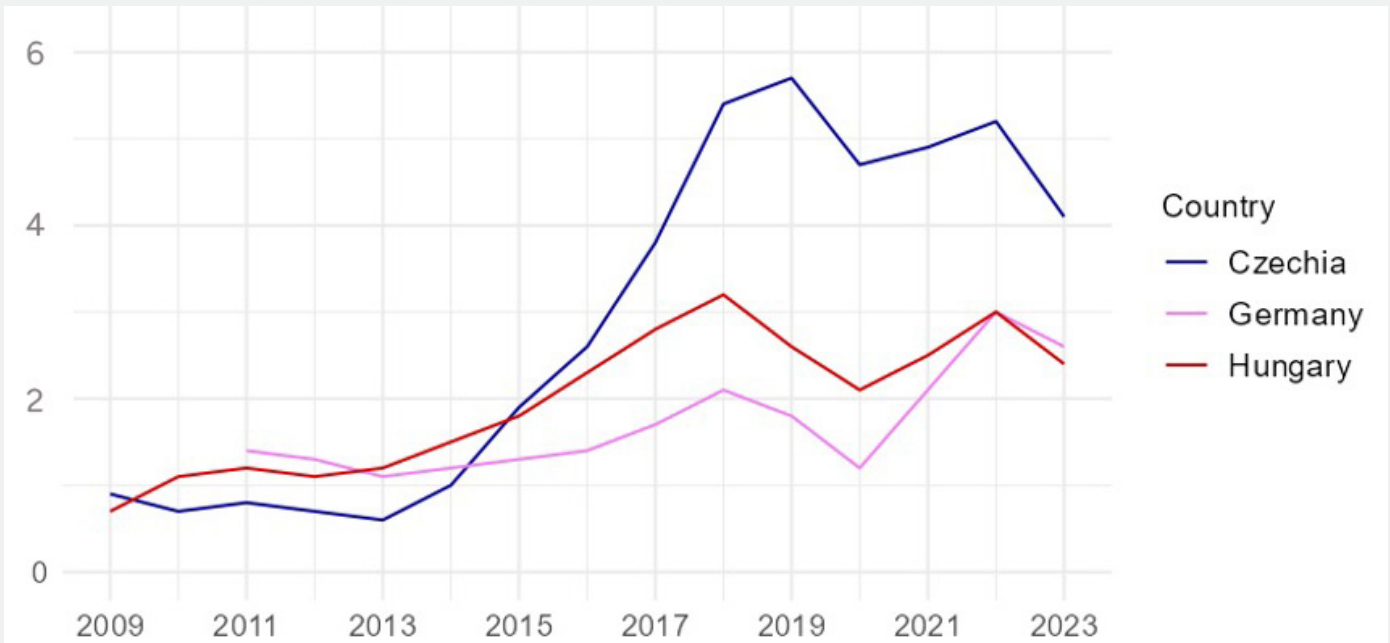
### The State of Economic Affairs in Czechia and Hungary

Czechia and Hungary have different political situations and levels of economic strength, with the former closer to the EU average in terms of GDP per capita. Their national industrial policies differ, and they opt for different tools. Both economies are strongly manufacturing- and export-oriented. Manufacturing has seen a decrease

in both countries since 2016 while the service sector has grown, a sign of general structural change. There is a struggle to fill opened manufacturing job vacancies, especially in Czechia (see Figure 4), which had the EU's lowest unemployment rates in several years. The manufacturing job vacancy rates peaked for both countries in 2018/2019, when firms could barely expand due to not being able to find skilled and unskilled workers. Generally, Czechia and Hungary's growth had already showed signs of slowdown in the years before the COVID-19 pandemic.

Investments in Hungary have skyrocketed since 2016, and the country's investment-to-GDP ratio overtook that of Czechia in 2021 and reached 28% in 2022. Business investments are now equal in the two countries, but in Hungary state investments have taken the leading role since 2016. One of the key factors was a targeted use of state aid in which aid to specific parts of the country took center stage and the government started attracting new foreign investment. In the same period, Czechia continued to outpace Hungary in R&D spending, which reached 2% of GDP in 2021 compared to 1.6% in Hungary. The last two years shifted the attention of businesses heavily toward rising prices and energy costs with worries about local industrial competitiveness. This remains true and concerns linger with the rising push for electrification and skepticism about resource adequacy. Moreover, Hungary is a backsliding democracy and has a high government debt, and billions in EU funds for the country are currently frozen, none of which is good for its businesses.

**Figure 4. Manufacturing Job Vacancy Rate (%) in Czechia and Hungary (Compared to Germany).**



Source: Author's calculations based on Eurostat. (2024). Job vacancy rate by NACE Rev. 2 activity. Accessed May 2024.

## Batteries: A Manufacturing Miracle?

Batteries are one critical element of manufacturing with potential for higher value-added and growing future demand considering their large-scale uptake in low-carbon transportation, industry, and households. Through initiatives including the European Battery Alliance, the Important Projects of Common European Interest, the Temporary Crisis and Transition Framework, and the NZIA, the EU aims to increase its batteries production capacity to reach 90% self-sufficiency in 2030.<sup>29</sup> Within the EU, Hungary and Poland are the two notable battery producers and exporters, whereas there are multiple member states importing batteries at volume as intermediate production inputs, notably Czechia with its automotive industry. In 2023, Czechia was the third-largest EU auto producer (almost 1.4 million cars) and Hungary the seventh-largest (slightly over 0.5 million).<sup>30</sup> With the transition to electric vehicles, both countries need to source an increasing number of batteries every year.

The battery value chain relies on three main stages covered by different businesses across the world with vastly varying value-added—mining and processing of raw materials for the production of cell components (which is not covered here, but the EU has taken steps to support this PRC-dominated area through the Critical Raw Materials Act), production of battery cells, and production of battery modules and packs, which are typically referred to as batteries.<sup>31</sup> Battery-cell production is the core business of the automotive-battery value chain. Many automotive producers then rely on pack plants near car factories to assemble the cells into battery modules and packs before they build them into final products, such as electric vehicles. Czechia imports battery cells at scale—mostly from China, followed by Hungary—and produces battery packs.

In 2022, battery-cell production in Hungary supplied almost 25% of electric-vehicle production in the EU. However, 83% of the vehicles were manufactured in Western Europe, as was 85% of battery packs.<sup>32</sup> Hungary is a typical small and open economy with manufacturing largely relying on foreign demand (see Figure 2). Only a couple of years after the first significant investments, electric batteries now account for more than 4.5% of exports, making them the country's third-most exported articles after cars and motor vehicles' parts and accessories. Hungary was fourth among lithium-ion battery exporters worldwide in 2022, with €5.1 billion in exports. In contrast, batteries make up 1.7% of Czechia's imports and the country has no large-scale battery cell production facility. Czechia was fourth among lithium-ion battery importers worldwide in 2022.<sup>33</sup>

The governments of Czechia and Hungary have pursued different industrial policies, largely diverging in the importance placed upon battery production. Although Hungary has been attracting foreign battery producers from Asia (mainly from South Korea and including China) for almost ten years, batteries was not on the government's radar as a potentially leading export product. Hungary published various strategies, and in the 2016 Irianyi Plan (a part of its industrial policy that chiefly addressed the question of reindustrialization at scale),<sup>34</sup> it aimed to focus on vertical support of selected industries—picking companies that will receive state aid. The plan did not mention the battery industry. However, interest from non-EU investors coupled with "VIP cash schemes" made it possible to attract battery investments quickly—investment promotion became a highly individualized case-by-case process under the supervision of the Ministry of Economic Development instead of long-term state aid planning. There was a strong push starting in 2018 with increased financial support for the first significant foreign investments, followed up in 2021 with the introduction of a national battery industry strategy under the

supervision of the Ministry of Innovation and Technology to boost production and to become the EU's battery technology front-runner. In 2022, the industry's stakeholders launched the Hungarian Battery Alliance and joined the European Battery Alliance.<sup>35</sup>

Hungary exploited the opportunity and the limits of granting state aid for the development of its industries and its regions to build its battery industry with foreign capital and knowledge. Although the country did not directly participate in the first two battery-related Important Projects of Common European Interest (in innovative battery technologies), the government supported individual investors coming to Hungary with generous financial support for matured technology production. The total direct financial support through state aid within the VIP cash schemes have been estimated to equal more than 12% of the battery value-chain investments by private investors between 2018 and 2022, including a record €0.2 billion in state aid to SK On company of South Korea.<sup>36</sup> Other tools also played a role, including grants for improving competitiveness in the aftermath of COVID-19, grants for worker training as part of investments, incentives through reduced corporate income tax, the offer of soft or preferential loans, and—most importantly—infrastructure-development financing by the government and municipalities, which probably exceeded the total direct grants for the battery industry.

### **Hungary exploited the opportunity and the limits of granting state aid for the development of its industries and its regions to build its battery industry with foreign capital and knowledge.**

Czechia has not articulated a coherent industrial policy focusing on reindustrialization. Innovation policy and the service sector have been of most concern. Despite the country's large auto industry, the government was not fond of electromobility in the past and battery production became a priority only after the pandemic. Czechia's only industrial policy, published in 2016, focuses on Industry 4.0, a fourth industrial revolution through digitalization and automation, and largely discusses the transition toward a digital and green economy.<sup>37</sup> The country also has no battery strategy, although the Czech Battery Cluster was launched in 2022 with the support of CzechInvest, the investment promotion agency of the Ministry of Industry and Trade. The industry has grown rather spontaneously without government intervention. There were some signs of change in 2022–2023, and the government is negotiating with a foreign investor, undisclosed at the time of writing, for large foreign greenfield investment in batteries, albeit faced with opposition from environmentalists and citizens from nearby towns and villages.<sup>38</sup> Earlier this year, the Ministry of Industry and Trade and CzechInvest promised to focus on two leading technologies: batteries and semiconductors.<sup>39</sup> However, as in the case of Hungary's battery industry, no solid analysis preceded the decision to allocate state aid in these two industries.

While the building the Hungarian battery industry offers a compelling story of fast industrial scaling up, there are many caveats regarding its long-term sustainability and growth potential. Pushing for investments amid low unemployment meant the government had to change immigration and labor policies by introducing ad hoc solutions.<sup>40</sup> Battery fabrication is not leading to an increase in the highly skilled workforce and instead is showing signs of "Foxconnization";<sup>41</sup> that is, moving toward the need for low-skilled labor with little knowledge spillovers to the rest of domestic industry (there is almost no R&D within the industry).<sup>42</sup> Weak institutions and a strong push to



increase battery production leave a question mark about the environmental sustainability of many projects built in record time and with lack of impact considerations. Moreover, Beijing aims to use the auto and battery industries in Hungary as a bridge between its producers and the EU market,<sup>43</sup> with the country now attracting most of the PRC auto and battery investments in the EU. For example, CATL will build a record €7.3 billion battery-production facility in the coming years, with many other projects planned.<sup>44</sup>

### Semiconductors: Critical Yet Niche?

Semiconductors (or integrated circuits or computer chips) are everywhere, from consumer electronics to cars, green technology appliances, data centers, supercomputers for artificial intelligence, and missile launches. Hundreds of billions of them are made yearly, and the EU recently set a target to increase its domestic production and its share of global production from today's 10% to 20% by 2030, with a focus on import substitution. The European Chips Act and its implementing body, the of Chips Joint Undertaking—complemented by the Important Projects of Common European Interest, Horizon Europe, and the Digital Europe Programme—should channel funds not only to domestic R&D but also to large-scale production facilities of already existing cutting-edge semiconductors. Fabrication-oriented public support is a new way for the EU of doing industrial policy; however, this is conditioned on delivering “first-of-a-kind” production in terms of process or product, with “mega-fabrication” facilities in mind and case-by-case state aid approval within the capital- and R&D-intensive industry.

Design, fabrication, and assembly-test-packaging are the three key production stages for semiconductors. They are carried out through either integrated-device manufacturers or fabless-foundry specialists. While the former provides activities across the whole value chain, the latter divides activities between design specialists (“fabless”) and production specialists (“foundries” or “fabs”).<sup>45</sup> Today, 75% of global semiconductor production capacity is in East Asia (with 90% in Taiwan for cutting-edge chips). The EU, together with Japan and the United States, has a comparative advantage in producing machines for semiconductor manufacturing. In Japan and the United States, the decades-long shift from production went hand in hand with the transition toward a fabless business model, whereas the EU never established a strong design or fabrication position within the value chain but maintains a strong position in R&D. The Netherlands lead the way in Europe with its cutting-edge machines that are exported worldwide, but there are also niche-but-indispensable technologies in the value chain. After Japan, Czechia is the second-largest exporter of electron microscopes for semiconductor inspection.<sup>46</sup>

Although Czechia's and Hungary's trade deficit in semiconductors might seem too small to worry about, a shortage of chips can easily halt production across many industries. This was the case in the automotive industry in 2021–2022 with extensive production delays. Hungary has built a robust electronics industry, diversified across the production of consumer electronics, industrial equipment, electronics for automotive and information technology, and many more sectors, with semiconductors amounting to 3.2% of total imports, and it domestically produces mostly semiconductor devices including diodes and transistors. Semiconductors account for 1.7% of Czechia's total imports. It is successful at producing and exporting higher-quality electronic components,<sup>47</sup> which confirms the high share of value-added in the country's production of electronic components and boards, reaching 40% compared to 20% in Hungary.<sup>48</sup>

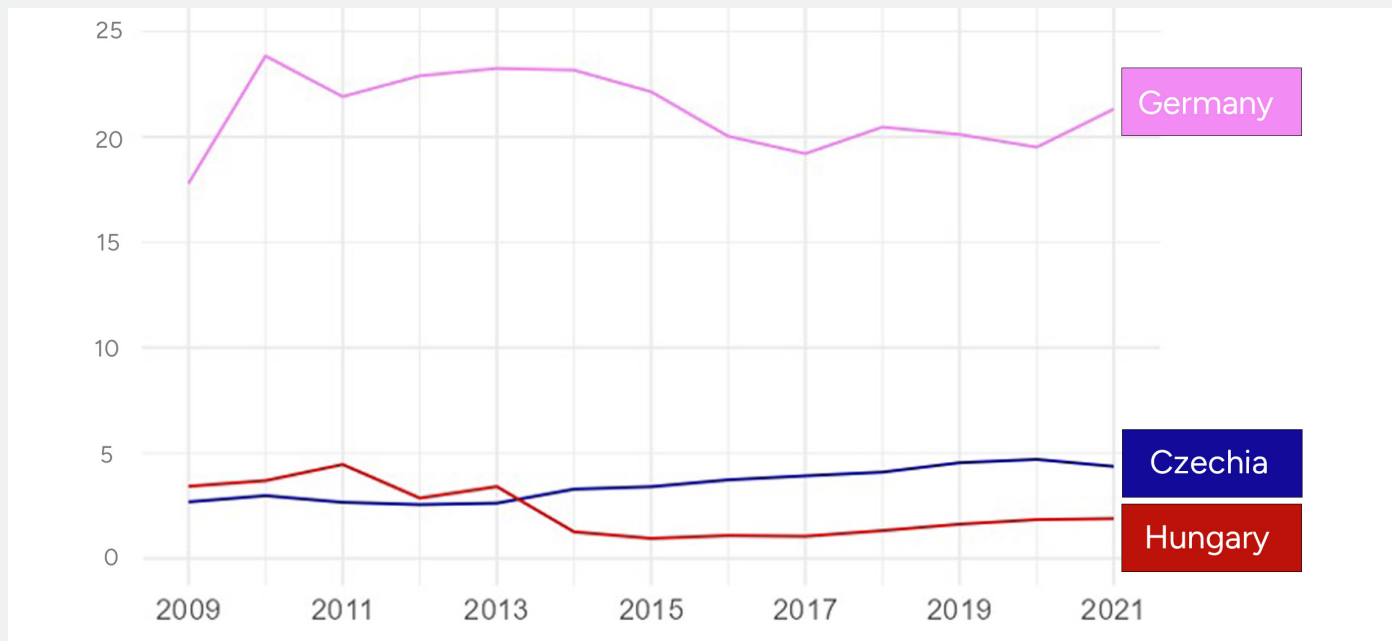
Across the semiconductor value chain, Czechia is competitive in R&D activities and emerging technologies. The Regional Innovation Strategy for Smart Specialization (RIS3) is the backbone of the national R&D agenda, and the forthcoming national semiconductor strategy will largely expand it. Key strategic areas include specialized photonics and micro- and nanoelectronics, including electronic components and boards, and the machinery and appliances for the semiconductor industry. While the 2016 Industry 4.0 initiative refers to micro- and nanoelectronics, it has not had any meaningful impact as it is mostly a guiding document, whereas the elaboration of the RIS3 for 2021–2027 supports the industry with a selection of priorities and their promotion, paying attention to nine domains through specific key project indicators.<sup>49</sup> In the spirit of the European Chips Act, local stakeholders launched the Czech National Semiconductor Cluster to perfect existing research, design, and manufacturing capabilities. The South Moravia region is one of the founding members of the European Semiconductor Regions Alliance and the only one from Central and Eastern Europe.<sup>50</sup> Together with the Zlínský region, they produce 3 billion chips yearly.<sup>51</sup>

### **Czechia's government has supported the semiconductor industry through state aid for R&D and innovation, with increased support to production-capacity investments since 2018.**

Czechia's government has supported the semiconductor industry through state aid for R&D and innovation, with increased support to production-capacity investments since 2018. Millions of euros were distributed to a handful of companies, principally to the American company onsemi in production and to Czech companies in other specialized activities. At the end of 2023, the Ministry of Industry and Trade again awarded a record €23 million to onsemi,<sup>52</sup> which plans to increase its production and R&D capacities, to largely tie its operations to local auto industry. At the EU level, in 2023, Czechia became one of the countries promising to contribute to the second microelectronics Important Projects of Common European Interest private project consortium, which was worth €8.1 billion in state aid. The government's aid contribution to two selected companies is estimated at €56 million.<sup>53</sup>

While Hungary built a successful electronics industry, it remains focused on the fabrication of various below-frontier semiconductor devices. It has not introduced a well-defined strategy for higher-end semiconductors (integrated circuits).<sup>54</sup> In the spirit of the 2016 Irianyi Plan and other national strategies, the country strives for reindustrialization and scaling up new and traditional production industries, although there is evidence of increased attention to R&D within the recently published Competitiveness Strategy 2030.<sup>55</sup> Some local stakeholders have pointed the poor quality of the strategy, however. Transitioning to a knowledge-based economy through services takes time. Yet, pursuing R&D activities and increasing capabilities in subnational regions across the semiconductor value chain should be beneficial in the long term, and Czechia is better placed for this shift (see Figure 5) with twice as much R&D spending in electronics than Hungary, although still far less than Germany. The semiconductor industry can benefit a country like Czechia with a solid base of technical knowledge and education. High-skilled jobs may increase labor productivity, local value-added, and growth, especially in an environment with very low unemployment and a high burden of bureaucracy for large greenfield investments such as battery facilities, which would be highly demanding in terms of a low- and medium-skilled workforce. However, extremely high capital intensity and a race between the EU countries to offer a higher state aid were some of the factors

Figure 5: Business R&D to Gross Value-Added in Electronics (%) in Czechia and Hungary (Compared to Germany), 2009–2021.



Source: Author's calculations based on Eurostat. (2024). BERD by NACE Rev. 2 activity. Accessed May 2024.

that killed Czechia's previously high ambitions of attracting new big chips investments of Taiwanese and U.S. companies.<sup>56</sup> These investments would necessitate solid cost-benefit analysis, a missing element in industrial policymaking in Czechia and Hungary.

## Key Takeaways and Recommendations

First, for small and open CEE economies with a large dependence on foreign demand, industrial policy in favor of large foreign-owned companies, as in the case of the battery industry in Hungary, can prove costly.<sup>57</sup> In an environment of low knowledge transfer, serious risks include low impact on knowledge spillovers and innovation, low capture of value-added, and the inability of domestic small and medium enterprises to catch up and increase productivity. Supporting and elevating the latter to integrate into global value chains through better cooperation with multinational companies should remain a priority.

Second, although the EU encourages its member states to support new investments in manufacturing through state aid (without allocating any substantial budget for support from the Strategic Technologies for Europe

Platform of the Net Zero Industry Act), the CEE countries should make financing R&D and innovation the priority, not subsidizing new manufacturing projects. Underinvestment in risky enterprises might prove harmful in the long run, whereas new manufacturing projects could cement the position of CEE “factory economies” if not conditioned on R&D spending and increased knowledge transfer.

Third, with limited government budgets and ongoing fiscal consolidation, the risk of misallocation and inefficiency of state aid looms large. Backed by the arguments about an urgent need articulated by the European Commission to invest within the EU, large foreign company could urge governments to subsidize specific production facilities, which could lead to decisions that are suboptimal for a country regarding which companies, which industries, and on what grounds governments should allocate aid. There are industries strongly promoted by the NZIA or European Chips Act priorities; nevertheless, CEE countries should not choose the state aid route without appropriate analysis of the costs and benefits in the long run.

### **With limited government budgets and ongoing fiscal consolidation, the risk of misallocation and inefficiency of state aid looms large.**

Fourth, CEE countries could find it counterproductive to build on an ever-increasing and wide range of R&D and innovation priorities in their national strategies. Specific selective processes should precede the decision to boost the long-term competitiveness of certain industries through state aid. Clearly articulated government priorities with appropriate policy tools can assure business investors in pursuing risky investments, balancing between R&D and innovation support across a limited range of activities and the potential of supported businesses to scale up and market their innovations.

Fifth, there is an inherent need for complementing industrial policy, well-defined labor policy, and education programs. Several CEE countries have low unemployment and find it challenging to expand across various manufacturing industries that would have otherwise grown. Delivering successful green and digital transition necessitates cooperation with labor unions and a strong focus on social dialogue to benefit the public.

## **Conclusion**

The EU’s competitiveness has been a priority of the outgoing European Commission and will be for the next one. Letta’s recent report on the Single Market clearly reflects the EU’s dedication to finding a cure, Draghi’s upcoming report on EU competitiveness will complement the voice of business stakeholders calling for a European Industrial Deal. It will be necessary for the EU to find answers to common challenges, especially in dealing with questions of finance or energy markets, as all the steps toward a better business environment can easily be undermined if the price of key energy inputs remains high.

New regulations, including the Net Zero Industry Act and the European Chips Act, aim to boost domestic manufacturing capacity and increase the EU’s capabilities across a range of activities. Nevertheless, they leave

## Rethinking Industrial Policy for Central and Eastern Europe

most of the public support to national state aid in the context of a race within the EU to attract investments. This warrants a pushback from member states with less fiscal room, including those in Central and Eastern Europe, calling for increased attention to cohesion objectives. One of Letta's proposals for the next European Commission is to change the state aid mechanism to support cohesion goals and maintain a level playing field within the EU.

Although industrial policy is back in the spotlight and makes a difference in achieving a competitive advantage in key manufacturing sectors for the green and digital transition, it should not leave out Central and Eastern Europe—and the CEE countries should not underestimate the importance of having a coherent industrial policy. The CEE economies are important within the EU value chain when it comes the manufacturing sector and selected industries. Czechia is building a specialized capability in the semiconductor industry through a combination of domestic and foreign companies, including from the United States, which has its roots in its record in micro- and nanoelectronics and very specialized technology know-how. Hungary is building and expanding a battery-production industry mainly through foreign direct investments from Asia, and it tries to focus on the reindustrialization aspect of industrial policy, with less attention and finance for innovation.

To face the challenges of maintaining competitiveness and transition to green and digital industries, the CEE countries should rethink their national policy and strategies to succeed in the industrial transition and in the necessary economic upgrading, instead of relying on fabrication, cheap labor, and easy access to energy and workforce as in the past. Building strong domestic small and medium enterprises, transferring knowledge from large foreign-owned ones, articulating clear R&D and innovation priorities, limiting the range of manufacturing priorities, focusing horizontally on business conditions across all activities, and welcoming labor-market reforms will be key for them to achieve a successful transition and build more resilient economies.

## Endnotes

- 1 Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.
- 2 Reda Cherif and Fuad Hasanov, *The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy*, International Monetary Fund, 2019.
- 3 Chiara Criscuolo et al, *An industrial policy framework for OECD countries: old debates, new perspectives*, Organisation for Economic Co-operation and Development, 2022.
- 4 See Global Trade Alert, *New Industrial Policy Observatory (NIPO)*.
- 5 The White House, *Inflation Reduction Act Guidebook*, 2022.
- 6 The White House, *Fact Sheet: Chips and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China*, August 9, 2022.
- 7 European Commission, *European Chips Act: Communication, Regulation, Joint Undertaking and Recommendation*, February 2, 2022.
- 8 European Commission, *The Green Deal Industrial Plan: Putting Europe's net-zero industry in the lead*, 2023.
- 9 European Commission, *Net-Zero Industry Act*, 2023.
- 10 An approach to economic policy where state intervention is deemed positive and important for economic development, which France introduced after the Second World War.
- 11 Jacob Funk Kirkegaard, Sudha David-Wilp, and Rachel Tausendfreund, *Keeping Europe Competitive*, The German Marshall Fund of the United States, April 2024.
- 12 Miguel Otero-Iglesias, *Germany and the EU face a new trilemma*, Politico, December 27, 2023.
- 13 Zuzana Zavorská et al, *Industrial Policy for a New Growth Model: A Toolbox for EU-CEE Countries*, The Vienna Institute for International Economic Studies, 2023.
- 14 Author's calculations based on Eurostat. Data accessed May 2024.
- 15 Based on and inspired by the term "integrated periphery" as used by Petr Pavlínek. See, for example: "Global Production Networks, Foreign Direct Investment, and Supplier Linkages in the Integrated Peripheries of the Automotive Industry", *Economic Geography*, 94(2), 2017.
- 16 Author's calculations based on Eurostat. Data accessed May 2024.
- 17 Zavorská et al, *Industrial Policy for a New Growth Model*.
- 18 Alessio Terzi, "Green industrial policy: the necessary evil to avoid a climate catastrophe", in Simone Tagliapietra and Reinhilde Veugelers (Eds.), *Sparking Europe's new industrial revolution: A policy for net zero, growth and resilience*, Bruegel, July 2023.
- 19 Zavorská et al, *Industrial Policy for a New Growth Model*.
- 20 According to the new OECD framework, these policies would be considered part of an industrial policy.
- 21 Simone Tagliapietra, Cecilia Trasi, and Reinhilde Veugelers "Europe's green industrial policy", in Simone Tagliapietra and Reinhilde Veugelers (Eds.), *Sparking Europe's new industrial revolution: A policy for net zero, growth and resilience*, Bruegel, July 2023.
- 22 European Commission, *Strategic Technologies for Europe Platform*, 2023.
- 23 European Commission, *Temporary Crisis and Transition Framework*, 2023.
- 24 Enrico Letta, *Much More Than a Market*, April 2024.
- 25 Thomas Moller-Nielsen, "Draghi: EU must enact 'radical change' as US and China refuse to 'play by the rules'", Euractiv, April 16, 2024.
- 26 Dani Rodrik, "Doing industrial policy right", *Financial Times*, February 8, 2024.
- 27 Philippe Aghion et al, *The power of creative destruction: Economic upheaval and the wealth of nations*, 2021.
- 28 Zavorská et al, *Industrial Policy for a New Growth Model*.
- 29 Council of the EU, *Net-Zero Industry Act: Council and Parliament strike a deal to boost EU's green industry*, February 16, 2024.

## Rethinking Industrial Policy for Central and Eastern Europe

- 30 European Automobile Manufacturers' Association, Economic and Market Report: Global and EU auto industry—Full year 2023, March 2024.
- 31 Thomas H. Klier and James M. Rubenstein, "From ICE to BEV Production in Europe: Industry Geography in Transition", *International Journal of Automotive Technology and Management*, 24(1), 2024.
- 32 Ibid.
- 33 Observatory of Economic Complexity, Electric batteries (HS 8507), 2024. HS 850760 statistics used for lithium-ion batteries.
- 34 Ministry for National Economy of Hungary, *Irinyi Plan: The Directions of Innovative Industrial Development in Hungary*, 2016.
- 35 For detailed information on the Hungarian battery industry and national policy, see Márton Czirfusz, *The Battery Boom in Hungary: Companies of the Value Chain, Outlook for Workers and Trade Unions*, Friedrich-Ebert-Stiftung, February 2023.
- 36 Ibid.
- 37 Ministry of Industry and Trade of Czechia, *Iniciativa Průmysl 4.0*, 2016.
- 38 Czech Press Office, "Obyvatelé Dolní Lutyně v referendu odmítli stavbu továrny na výrobu baterií" [In a referendum, the residents of Dolní Lutyn rejected the construction of a factory for the production of batteries], *České Noviny*, June 8, 2024.
- 39 CzechInvest, *Ministr Síkela slavnostně uvedl Jana Michala do funkce generálního ředitele agentury CzechInvest* [Minister Síkela officially introduced Jan Michal to the position of CEO of the CzechInvest agency], April 10, 2024.
- 40 Czirfusz, *The Battery Boom in Hungary*.
- 41 Boy Luethje, *Foxconnization of Car Manufacturing? Production Models and Labor Relations in the EV Industry in China*, 31st International Colloquium of Gerpisa in Brussels, March 20, 2023.
- 42 Eurostat, *BERD by NACE Rev. 2 activity and source of funds*, 2024.
- 43 Noah Barkin, *Watching China in Europe—January 2024*, The German Marshall Fund of the United States, January 4, 2024.
- 44 Ágnes Szunomár, *From Zero to Hero? Chinese Investment in Electric Vehicle Supply Chains in the Visegrád Four*, AMO – Association for International Affairs, January 2024.
- 45 Organisation for Economic Co-operation and Development, *Measuring distortions in international markets: The semiconductor value chain*, 2019.
- 46 Antton Haramboure et al, *Vulnerabilities in the semiconductor supply chain*, Organisation for Economic Co-operation and Development, 2023.
- 47 Observatory of Economic Complexity, *Integrated Circuits (HS 8542)*, 2024. HS 8541 statistics used for semiconductor devices, considered in the text as adjacent semiconductor devices. Total import equals the sum of these two product categories.
- 48 Eurostat, *Enterprise statistics by size class and NACE Rev.2 activity*, 2024.
- 49 Ministry of Industry and Trade of Czechia, *RIS3 strategie*, 2024.
- 50 European Committee of the Regions, *Launch of the European Semiconductor Regions Alliance*, September 7, 2023.
- 51 See *Czech National Semiconductor Cluster*.
- 52 Ministry of Industry and Trade of Czechia, *Vláda schválila čtyři investiční pobídky za téměř 1,4 miliardy korun* [The government approved four investment incentives for almost 1.4 billion crowns], November 29, 2023.
- 53 European Commission, *IPCEI on Microelectronics and Communication Technology "ME/CT" SA.101141*, June 8, 2023.
- 54 Although more support for the industry is being negotiated. See "Ministry of Economic Development eyes chip development to bolster semiconductor market", *Daily News Hungary*, October 9, 2023.
- 55 Ministry of Economic Development of Hungary, *Magyarország versenyképességi stratégiája 2024-2030*, 2024.
- 56 Michaela Zbrojová, *Why Czechia's Dream of a TSMC Semiconductor Factory Never Materialized*, *China Observers in Central and Eastern Europe (CHOICE)*, February 2024; Jan Sedlák, *Intel chystá masivní investice v Evropě. Síkela jel lobbovat do USA, aby firmu nalákal do Česka* [The government approved four investment incentives for almost 1.4 billion crowns], *E15*, March 24, 2023.
- 57 International Monetary Fund, *Fiscal Monitor Chapter 2: Expanding Frontiers: Fiscal Policies for Innovation and Technology Diffusion*, April 2024.

## Disclaimer

The views expressed in GMF publications and commentary are the views of the author(s) alone.

As a non-partisan and independent research institution, The German Marshall Fund of the United States is committed to research integrity and transparency.

## About the Author(s)

Michal Hrubý is an economist and PhD candidate in international economic relations at Prague University of Economics and Business and a scientific assistant at Škoda Auto University, focusing on economic transitions and industrial transformation. His research explores the impact of regulation on the automotive industry and assesses new industrial policies. He has been a research fellow and economist for European and international think-tanks, including EUROPEUM Institute for European Policy and the International Sustainable Finance Centre.

## About the ReThink.CEE Fellowship

As Central and Eastern Europe faces mounting challenges to its democracy, security, and prosperity, fresh intellectual and practical impulses are urgently needed in the region and in the West broadly. For this reason, GMF established the ReThink.CEE Fellowship that supports next-generation policy analysts and civic activists from this critical part of Europe. Through conducting and presenting an original piece of policy research, fellows contribute to better understanding of regional dynamics and to effective policy responses by the transatlantic community.

Cover photo credit: IM Imagery | Shutterstock

## About GMF

The German Marshall Fund of the United States (GMF) is a non-partisan policy organization committed to the idea that the United States and Europe are stronger together. GMF champions the principles of democracy, human rights, and international cooperation, which have served as the bedrock of peace and prosperity since the end of the Second World War, but are under increasing strain. GMF works on issues critical to transatlantic interests in the 21st century, including the future of democracy, security and defense, geopolitics and the rise of China, and technology and innovation. By drawing on and fostering a community of people with diverse life experiences and political perspectives, GMF pursues its mission by driving the policy debate through cutting-edge analysis and convening, fortifying civil society, and cultivating the next generation of leaders on both sides of the Atlantic. Founded in 1972 through a gift from Germany as a tribute to the Marshall Plan, GMF is headquartered in Washington, DC, with offices in Berlin, Brussels, Ankara, Belgrade, Bucharest, Paris, and Warsaw.

Ankara • Belgrade • Berlin • Brussels • Bucharest

Paris • Warsaw • Washington, DC

**gmfus.org**