

Policy Brief

Utilising national subsidies for EU industrial policy

Philipp Jäger, Policy Fellow

20 December 2024

#IndustrialPolicy

#Auctions

#SubsidyAlignment

Achieving the EU's industrial policy objectives requires large-scale public financial support. Since EU-level funds are scarce at least in the short term, national state aid must be relied on to fill the gap. However, national state aid is currently not coherently directed at EU priorities, nor are the selection and disbursement mechanisms harmonised across member states, resulting in an ineffective and inefficient policy landscape. This policy brief analyses the instruments the EU already has at its disposal to better align national state aid, and recommends new tools for addressing the gaps identified.

EU industrial policy remains underfunded. Reaching the EU's proclaimed ambitions, including on clean and digital technologies, demands massive investments which are currently not met (cf. [the Draghi report, JDC 2023](#)). While the private sector will have to do most of the heavy lifting, in some areas public money will be indispensable to incentivise investments, given market failures, extensive foreign subsidies, and structural-cost disadvantages for some EU sectors.

Ideally, this funding would come from the EU level. EU funding would ensure the efficient allocation of resources, better coordination and reduced risks of fragmentation in the single market. Equipping the next European budget with sufficient resources to finance common industrial policy priorities should therefore be a priority in the upcoming negotiations on the next multiannual financial framework starting in 2028.

However, until then, a significant expansion of EU-level resources is unlikely. Therefore, national financing will remain the main source of funding in the coming years. This policy brief discusses several reasons why, in the short run, this is an acceptable second-best solution but requires that the EU significantly improves its tools for aligning national aid with EU objectives and across member states.

Specifically, the EU Commission should create and expand frameworks that make national state aid more coherent and more harmonised. First, a higher degree of *coherence* is needed to direct national aid at EU priorities. Second, to harness the power of the EU single market, a greater degree of *harmonisation* is needed by aligning the mechanisms that member states use to select beneficiaries and disburse aid. The policy brief analyses the instruments the EU already has at its disposal to better align national state aid, and recommends new tools for addressing the gaps identified.

1 Why EU industrial policy should rely also on national financing

Subsidies pose substantial risks for the integrity of the single market, especially if financed at the national level. Since state aid – like all forms of industrial policy – potentially creates an unfair advantage for supported companies, the EU treaties in principle prohibit subsidies, only allowing them as exceptions to the rule. In cases where subsidies are financed at the *national* level, there is the added risk of economic divergence in the single market, because deep-pocketed member states can boost their companies, while more fiscally constrained governments cannot. Subsidies financed and allocated at the EU level, in contrast, typically come with less risk of divergence, are more efficient, and ensure greater strategic coherence.

However, the effects of national aid, compared to EU-level subsidies, are often not clear-cut. The risks and benefits of national industrial policy subsidies for the EU level are multi-dimensional and heavily dependent on the nature of the recipient sector. The following section looks at the most important considerations in this context. This more nuanced risk–benefit analysis reveals that national state aid for industrial policy purposes can be less distorting than its reputation implies.

Risks and benefits of using national instead of EU-level funding

How well does national ability and willingness to provide state aid match where EU-allocated state aid would be spent? Given the geographic distribution of existing economic activity across Europe, many merit-based EU-level subsidies would likely be allocated to member states that are already more willing and able to subsidise these investments themselves. For example, EU-level subsidies for chip factories would tend to go to countries already more prepared to provide the necessary subsidies, like Germany. In these cases, using national instead of EU-level funds still results in the optimal allocation of investments. In some of these cases, whether EU funds should be preferred is debatable, because the EU budget, funded also by contributions from less prosperous member states, would finance subsidies that attract investments in richer member states. Sometimes the issue is also not whether an investment occurs in one EU country or another, but whether it goes to a specific member of the bloc, or to the US or China instead.

How likely is a strong divergence in subsidy spending for industrial policy? Some countries provide more subsidies than others. The most recent [official data](#), for 2022, has Hungary, France, and Germany at the top of the list, each providing state aid worth about 2% of their GDP, whereas countries like Croatia or Slovakia spend less than 1%. While this is a substantial difference, these are *total* subsidy amounts, including, for instance, general economic support during covid and the energy crisis, which tend to be much less economically distortive. Unfortunately, official data on subsidies specifically on industrial policy priorities is scarce. A new data set we have recently constructed to fill this gap (forthcoming, JDC 2024) suggests that, up until now, richer member states are *not* outspending their more fiscally constrained neighbours on EU industrial priorities (such as manufacturing for clean tech, semiconductors, or biotech). This is also the case for France and Germany, which are considered the ‘subsidy heavy weights’ given their large nominal state aid volumes.

Subsidy volumes must be monitored closely to detect and react to divergences, which are a real risk. But the available evidence suggests that insufficient aggregate spending is a larger risk than individual member states outspending their peers.

How important are spillover effects? National investments can have large positive economic externalities for other member states, depending on the sector, as [recent empirical research](#) has found for semiconductors, for instance. Especially in cases where different parts of the value chain within a particular industry sector are linked across member states, this can potentially outweigh the negative effects of nationally focused investment. For electric vehicles, for instance, the value chain is distributed across different member states, with 50% of the bloc's EVs being manufactured in Germany, while 90% of EU-produced EV batteries came out of Poland and Hungary in 2023 ([IEA 2024](#)).

How great is the economic potential of certain industrial policy subsidies, and hence the risk of divergence? While this is a major risk to be navigated, it does not arise with industrial policies aimed at a goal other than immediate economic return: for example, national subsidies whose goals are to tackle climate change or enhance resilience are crucial but many have only a small or even negative economic effect for the respective member state.¹ Allowing these to be funded on the national level may therefore only have upsides for other member states. The case is similar and almost as strong for most R&D support.

To close the overall funding gap, increasing national state aid will be unavoidable

At least in the short-term, the risks outlined above appear manageable for most of the sectors currently prioritised, such as clean tech or semiconductor manufacturing. So far, the differences in spending across member states do not appear to be of worrisome magnitudes, and most of the industrial priorities target market failures and have positive spillover effects. Therefore, relying more on national aid seems to be a risk worth taking. In fact, because there will probably not be any fresh EU money in the short term, and given that re-shuffling existing EU funds (as has been attempted in the [STEP](#) initiative, for example) will not produce big effects, there is no alternative to using more national aid – that is, if EU policymakers want to avoid grossly insufficient aggregate spending. But using more national aid must be conditional on organising and coordinating it better across member states than is currently the case.

2 National subsidies are not sufficiently aligned

National subsidies currently suffer from two problems. First, they are not coherently directed at strategic EU priorities. Within the confines of state aid rules, member states are currently free in choosing the sectors or technologies they want to subsidise. Consequently, each member state directs aid to their individual priorities; one country might subsidise production of novel batteries, another develops small modular reactors, while their neighbour supports the development of e-fuels, for instance.

While playing to national strengths has its merits, it also comes with a risk of spreading aid too thinly over too many sectors and underfunding EU priorities. In sectors with extensive and capital-intensive value chains, the EU can therefore have a hard time keeping up with more unified economies, such as in the US or China, that are able to marshal higher sums for

¹ For example, decarbonising steel requires large subsidies, whose economic payoff for the subsidising country is uncertain. Economically, it might be better for each country to wait, and benefit from the cost degeneration created by the 'first-mover' country that provided the original subsidies. Likewise, subsidies to boost resilience and reduce geopolitical dependencies can be thought of as a costly type of insurance and, given the openness of the single market, the benefits are largely non-excludable – in other words, subject to free-riding. Therefore, as long as resilience is boosted with national subsidies, all the other member states will receive (at least some of) the benefits cost-free.

specific sectors. The available data makes it difficult to ascertain how severe the scattering of EU subsidy policy currently is, but when national aid is scaled up, this could become a major obstacle if left unaddressed.

Second, heterogenous subsidy mechanisms impede cost-effectiveness, transparency and economic efficiency in the single market. Even in areas that many member states have identified as priorities and therefore subsidise, the EU single market's economies of scale are not properly harnessed, because subsidy mechanisms are insufficiently harmonised across member states. In line with the principle of subsidiarity, it makes sense for subsidy schemes to differ across member states, to account for heterogenous conditions and country-specific regulations already in place. However, the disparities are often unnecessarily large, leading to inefficiencies in the way subsidies are allocated.

One example of heterogeneous subsidy mechanisms is **purchase premiums for electric vehicles**, which vary widely across member states. Differences regarding subsidy amounts, application of price caps (where cars must be below a certain price), types of support (direct purchase subsidies or tax reductions), and whether support is means-tested (only available to poorer households, for example) can in some cases be justified, given different social and taxation systems. But the *criteria* on which subsidies are based also differ, and include a [varying combination](#) of production-related carbon footprint, car weight, and de facto local-content rules. These disparities give [inconsistent signals to car manufacturers](#) (which is further exacerbated by differing criteria governing how combustion engine cars are penalised). Similar differences exist in many other sectors and policy areas.

3 Existing EU frameworks can serve as starting points for aligning national state aid

The EU has some tried-and-tested mechanisms to coordinate national state aid across member states, but these only partially ensure coherence (i.e. directing national aid at EU priorities) and harmonisation (i.e. aligning subsidy mechanisms across member states). Some of the EU's more recently introduced tools, in particular 'auctions as a service', can address these gaps to some extent, but are not yet used widely and are only suitable under certain conditions.

State aid rules

A potentially potent tool for aligning national aid are state aid rules themselves, by determining what public support is permissible and the ways in which it can be provided. At their heart – as defined in the EU treaties – the rules are agnostic about different sectors. However, the Commission, which has the power to enforce and interpret the rules, can adopt state aid frameworks and guidelines that do contain a sectoral focus (typically by arguing that the permitted activities all correct a market failure). Regulations and directives adopted by co-legislators can introduce changes to state aid rules as well, and can also feature a sector-specific focus.

Examples are the '**Guidelines on climate, environmental protection and energy aid**' ([CEEAG](#)), the **European Chips Act** allowing subsidies for semiconductor manufacturing, or the '**Temporary Crisis and Transition Framework**' ([TCTF](#)). The TCTF, for instance, allows national policymakers to match foreign subsidies, but only for certain strategic products – namely batteries, solar panels, wind turbines, heat pumps, electrolyzers, and CCUS (carbon capture, utilisation and storage) systems. These frameworks can also make provisions regarding the mechanism; for example, the limit of the aid intensity, the types of cost deemed eligible (such as operating expenditure or capital expenditure), and the way in which aid is provided (by guarantees or direct grants, for instance).

State aid rules are currently not used extensively to improve coherence or harmonisation of national state aid, and for good reason. In theory, a sweeping change to the rules could align state aid much more closely than they currently do, by more narrowly delineating which strategic sectors can receive aid, which ones cannot, and what mechanisms member states have to use. However, rule changes to that effect would be legally difficult, and, more importantly, would come at the cost of inflexibility when it comes to adapting to unforeseen circumstances.

Important Projects of Common European Interest

Important Projects of Common European Interest (IPCEIs) disburse national subsidies relating to a common priority, coordinated at the EU level. IPCEIs are a common vehicle for member states to finance national industrial policy, and more than €91 billion in national state aid has been approved (although only a much smaller amount has actually been paid out) so far. Since 2018, ten IPCEIs have been supporting a range of areas including microelectronics, batteries, hydrogen, and cloud computing. However, the procedural requirements for IPCEIs are [time-consuming and costly](#), with funding decisions often [taking years](#). Bearing the administrative costs is particularly difficult for SMEs and smaller member states.

Being member state-driven, IPCEIs align national aid only to a limited degree. A Commission [Communication](#) defines some guardrails, including that IPCEIs should contribute to an EU objective, like the EU Green Deal or EU Digital Strategy, and that multiple member states must participate. However, while the Commission has to approve IPCEIs, national governments ultimately get to decide the thematic focus (facilitated through the [Joint European Forum for IPCEI](#)), meaning coherence of national aid is improved only slightly. The situation is similar when it comes to harmonising subsidy mechanisms used in IPCEIs. While aspects like beneficiary selection and type of aid instrument must adhere to certain high-level principles stipulated by the EU, member states have wide-ranging freedoms in designing national calls for projects and the ways in which they disburse subsidies.

EU Joint Undertakings and national compartments in EU financing tools

EU Joint Undertakings (JUs) are public–private partnerships that support a specific industrial objective. JUs have been established for a range of priorities, such as [supercomputing](#), [clean hydrogen](#) or [decarbonising aviation](#). The budget for JUs is provided by its members, which typically are the EU (represented by the Commission), the private sector and, in the case of some JUs, a grouping of member states. To the extent that member states channel national funds through a JU instead of setting up their own subsidy schemes and projects, JUs can help improve alignment of aid across member states. Coherence is improved because JUs are created by a Council Regulation based on a Commission proposal, and must be targeted at an EU objective. Harmonisation is also improved, since JUs use similar approaches to support projects across member states. Member states can provide financing either from national budgets or by redirecting a portion of funds they receive from the EU, such as cohesion funds. However, member states have only contributed national funds in a handful of cases so far (for example, the EuroHPC [JU for EU supercomputing](#)).

A mechanism with conceptual similarities is the option for member states to shift some of their cohesion funds or Recovery and Resilience Funds (RRF) [to the member-state compartment of EU investment tools like InvestEU](#). InvestEU aims to boost sustainable investment, innovation and job creation by providing support mostly in the form of cheap loans. While shifting RRF or cohesion funds into InvestEU is strictly speaking not about national state aid, this option can still improve the alignment of subsidies across member

states. In the case of the RRF, for instance, member states are relatively free to decide what sectors to support and how to spend their funds, resulting in diverging priorities and mechanisms, whereas InvestEU pursues the same objectives and implementation approach in all countries.

‘Auctions as a service’

A relatively novel coordination instrument for national state aid is ‘auctions as a service’.

Auctions are a particularly effective tool for allocating subsidies (see Box 1) and are frequently used, for instance, to subsidise wind farms or solar parks. In the first EU [auction](#) for subsidies to produce renewable hydrogen, financed by the EU Innovation Fund, an ‘auctions as a service’ (AaaS) was offered to member states for the first time. AaaS allow member states to contribute national funds to the auction, to finance national projects whose bids were too high to be successful under the available EU funds (a visual guide to the AaaS mechanism can be found [here](#)). Germany contributed €350 million in national funds to the first auction concluded earlier this year; for the next round, Spain, Austria and Lithuania are expected to deploy [over €700 million](#).

Box 1: Suitability of auctions for allocating subsidies

Auctions are an effective tool to allocate subsidies under many circumstances. By awarding the subsidy (which typically equals the bid amount) to the companies that submit the lowest bids, the auction is **cost-effective** (as long as there is sufficient competition among companies). Auctions are **administratively lean** because only rudimentary knowledge of the subsidy amount required to deliver the desired economic activity is needed beforehand. Given the simplicity of the selection based solely on the bid, **transparency is high** and the risk of political capture or misappropriation low.

However, auctions are less versatile than other subsidy allocation mechanisms, because an array of conditions need to be met for them to function as intended. Auctions work best for homogenous goods, and at a minimum it **must be possible to clearly define the subsidised economic activity**. In the case of the hydrogen auction this is straightforward (kilograms of renewable hydrogen), but in areas where the objective is not as clear-cut, for instance in developing the next generation of a technology, this might not be feasible. Auctions also need a **sufficient level of competition**, with enough projects from different companies in the right development stage (typically, projects that are already planned, but before the start of works and the final investment decision). Moreover, auctions are **less able to support economic activities already underway**, for instance if they have come under pressure from foreign subsidies; in some of these cases, companies trying to recoup their initial investments would aim to obtain whatever subsidy they can, driving bids down towards zero.

AaaS lower administrative costs, reduce the risk of political capture, are easy to scale, and can align national aid. By being connected to an auction set up by the EU Commission, AaaS are automatically focused on an EU priority, and it is ensured that the same selection criteria and disbursement mechanism are used in all participating countries. AaaS hence ensure both coherence and harmonisation. By avoiding that each country conducts its own auction, administrative costs are reduced, and since the Commission tends to be more robustly isolated from lobbying efforts than many national governments, the risk of political capture is further lessened. Auctions, and by extension auctions as a service, can also be scaled up easily, because even a large increase in the total subsidy volume will only incur a slight increase in administrative costs.

However, AaaS can result in suboptimal allocation and strategic bidding. AaaS can result in suboptimal allocations of investments, from an EU perspective, if projects go to countries with an AaaS ‘window’, instead of to companies with lower bids that are located in countries without an AaaS window. Moreover, AaaS can introduce strategic bidding, as companies only need to outbid their national competitors rather than all firms in the EU. In cases where competition is low and companies have different costs in a country, adding AaaS to an auction for that country can therefore lower efficiency and increase costs.

Auctions and AaaS are only suitable under certain circumstances. As further detailed in Box 1, auctions are not suitable if competition is low, if the desired economic activity is difficult to define precisely, or if the objective is to further stimulate activities that are already ongoing, even without the auction. Under such circumstances, other allocation mechanisms might be more suitable. To support EU battery production, for instance, the Commission deemed [competitive calls as superior to auctions](#).

4 How to better harness national financing for EU industrial policy

EU industrial policy must rely on national financing, but to avoid a fragmented approach and divergence, aid must be more closely aligned across member states. This requires two actions. First, the EU Commission should improve existing alignment tools and devise new ones to address gaps in the current toolbox. Second, the EU should create incentives for member states to wield these tools more often.

Improving existing tools and developing new ones

The EU Commission should offer auctions as a service in additional areas. Given the encouraging outcome of the first hydrogen auction and the auctions-as-a-service model, the EU Commission should evaluate which additional industrial policy goals could be effectively supported by auctions, and set them up with the AaaS option. New technologies and economic activities, such as carbon capture, utilisation and storage (CCUS), for example, are promising candidates for auctions under the aegis of the Innovation Fund.

Some high-level auction design choices need more public debate and should be decided at the political level rather than by technocrats. These choices include, for instance, the degree of conditionality—should subsidies be tied to robust labor standards, to resilience criteria, to environmental standards, or to cohesion objectives? Another choice concerns the extent of ‘technology-openness’: for the hydrogen auction, for instance, no restrictions were placed on the off-take sector, meaning heavily subsidised hydrogen might be used in politically undesirable applications that have a higher willingness to pay in the short to medium run (cf. [JDC paper on hydrogen](#)). Another issue with a political dimension concerns ‘payback’ mechanisms – in other words, whether projects that are more profitable than anticipated should pay some of their gains back into the EU budget.

In areas where auctions are not suitable, the Commission should keep pushing forward with developing additional ‘as-a-service’ models. Given that auctions are not the optimal subsidy allocation mechanism for some economic activities (see section 4), tools analogous to ‘auctions as a service’ should be developed for competitive calls (which are less efficient but more versatile than auctions). While the details are still sketchy, the Commission seems to be venturing into this area by offering ‘grants as a service’ under the upcoming Innovation Fund call. The Commission should aim to make quick progress on this work to ensure fast take-up by member states, and should also explore whether an “as-a-service” option can be used for additional instruments beyond auctions and competitive calls, such as measures for enhancing R&D support.

Policymakers at the EU level should continue to set a sectoral focus in state aid rules to improve coherence of national aid. For instance, the TCTF allows ‘matching aid’ (see section 4) only for six ‘clean’ technologies/sectors, instead of the 19 clean technologies listed in the EU’s Net Zero Industry Act, or even for all economic activities. The TCTF is scheduled to end in December 2025; if it is overhauled or replaced, the focus on strategic priorities should be maintained, or even further increased (for example by removing run-off-the-mill solar-panel manufacturing from the list of activities eligible for matching aid). The same approach should be pursued or maintained in other policy areas such as biotech, or in digital technologies like semiconductor production.

‘State aid templates’ for national subsidy schemes could be introduced by the Commission. At the moment, member states typically design their own subsidy schemes, resulting in subsidy mechanisms for one objective (say, charging infrastructure or EV-purchase premiums) differing among member states. An effective yet easy fix could be for DG Competition to publish ‘blueprints’, or templates, for national state aid schemes for common objectives, that define the selection process and disbursement mechanism. Because any scheme run according to the template would be designed with compatibility with the internal market in mind, these schemes could be greenlighted by DG Comp much more quickly (as long as member states refrain from altering the terms of the scheme too much).

Lastly, the Commission should improve and expand the use of well-established alignment tools. IPCEIs will continue to play a role in financing industrial policy, but must become faster and leaner (comprehensive recommendations can be found elsewhere, for instance in the Draghi report). Moreover, IPCEIs should more closely align the criteria governing project selection across member states. However, given their generally limited ability to align national aid, they should not be the only game in town; for many purposes, other tools are available that are more effective at aligning national aid (see Table 1). Channelling national funds, or EU-level funds allotted to member states, into Joint Undertakings or programmes like InvestEU, is comparatively easy to do, and has the potential to be scaled up further. In particular, with many RRF investments facing delays, more member states could shift RRF funds to InvestEU, to ensure their funds are not lost after the RRF deadline in mid-2026.

Table 1: Potential of different tools for improving alignment of national aid

	Potential for enhancing alignment of national aid		
	Align areas i.e. aid across countries is directed at common strategic priorities	Align mechanisms i.e. similar support mechanisms are used in a given sector across countries	Joint selection / implementation i.e. selection of beneficiaries and/or implementation of support, such as disbursing subsidies, is done at EU level
IPCEIs	+		
Shaping state aid rules (sectoral focus and provisions on mechanisms)	+	+	
Channelling national funds via Joint Undertakings and EU financing tools	++	+	+
State aid scheme templates	+	++	
Auctions as a Service (and similar mechanisms)	++	++	++

Incentivising the use of alignment tools

Better aligning state aid is in member states' self-interest, but they might nonetheless be reluctant to use EU-provided alignment tools. The benefits of more closely aligning aid, which includes more efficiently harnessing the scale of the single market, should be evident. However, member state administrations might be reluctant to align processes with other member states or shift them to the EU level, given that this would cede some of their decision-making power to non-domestic bodies. Similarly, national politicians might want to use industrial policy subsidies in a particular way to cater to certain parts of the electorate.

To overcome this resistance, policymakers at the EU level need to quickly build trust in the efficacy of EU tools, and create incentives to use them. The best way to convince member states to use these tools is to ensure and showcase success stories. For the AaaS of the hydrogen auction, for instance, this seems to be working: additional member states have signed up to the AaaS for the second round, given the positive results of the auction overall, and the success Germany has had with the AaaS. If the tools are designed well and deliver what they promise, their use will increase over time.

As well as building trust, the Commission should provide incentives. In particular, approval of state aid could be accelerated. Speedier approval is needed across the board, but for well-aligned national aid the evaluation process is straightforward and should go through the system even more smoothly. The process has already been streamlined for auctions as a service, and could be made faster and more automatic for future 'as-a-service' tools as well. Likewise, the [Commission already aims to accelerate IPCEIs](#); one way to achieve this could be to offer faster approval if member states use the same, Commission-vetted mechanism for selecting beneficiaries and disbursing aid. Finally, to make EU tools more attractive, the EU Commission could conversely make aid that is not well-aligned less attractive, for instance by increasing the demands made on the efficiency of such schemes.

5 Conclusion

The debate around national aid for industrial policy needs to become more nuanced – fast. Without doubt, EU-level funding would be the best option, and the next EU budget needs to provide more funds for a genuinely EU-wide industrial policy. But at least in the short term, fresh EU money won't be available, and condemning national aid outright won't resolve the problem. Instead, the EU should use its toolbox to focus aid more clearly on the bloc's strategic priorities and to more closely align subsidy mechanisms across member states. Some of these tools can even serve as a bridge towards genuine EU industrial policy: while they are financed mostly with national funds for now, they can increasingly be co-financed with EU-level funds, when the proposed Competitiveness Fund or the new EU budget arrive.

Gefördert durch:



Bundesministerium
der Finanzen

Hertie School GmbH • Chairman of the Supervisory Board: Bernd Knobloch • Chairman of the Board of Trustees: Frank Mattern • Managing Director: Prof. Dr. Cornelia Woll, Dr. Axel Baisch • Registered Office: Berlin • Trade Register: Local Court, Berlin-Charlottenburg HRB 97018 B • Hertie School – founded and supported by the non-profit Hertie Foundation

Alexanderstraße 3
D – 10117 Berlin
Tel.: +49 (0)30 259219-107

Online: delorscentre.eu
E-Mail: info@delorscentre.eu
Bluesky: delorsberlin.bsky.social