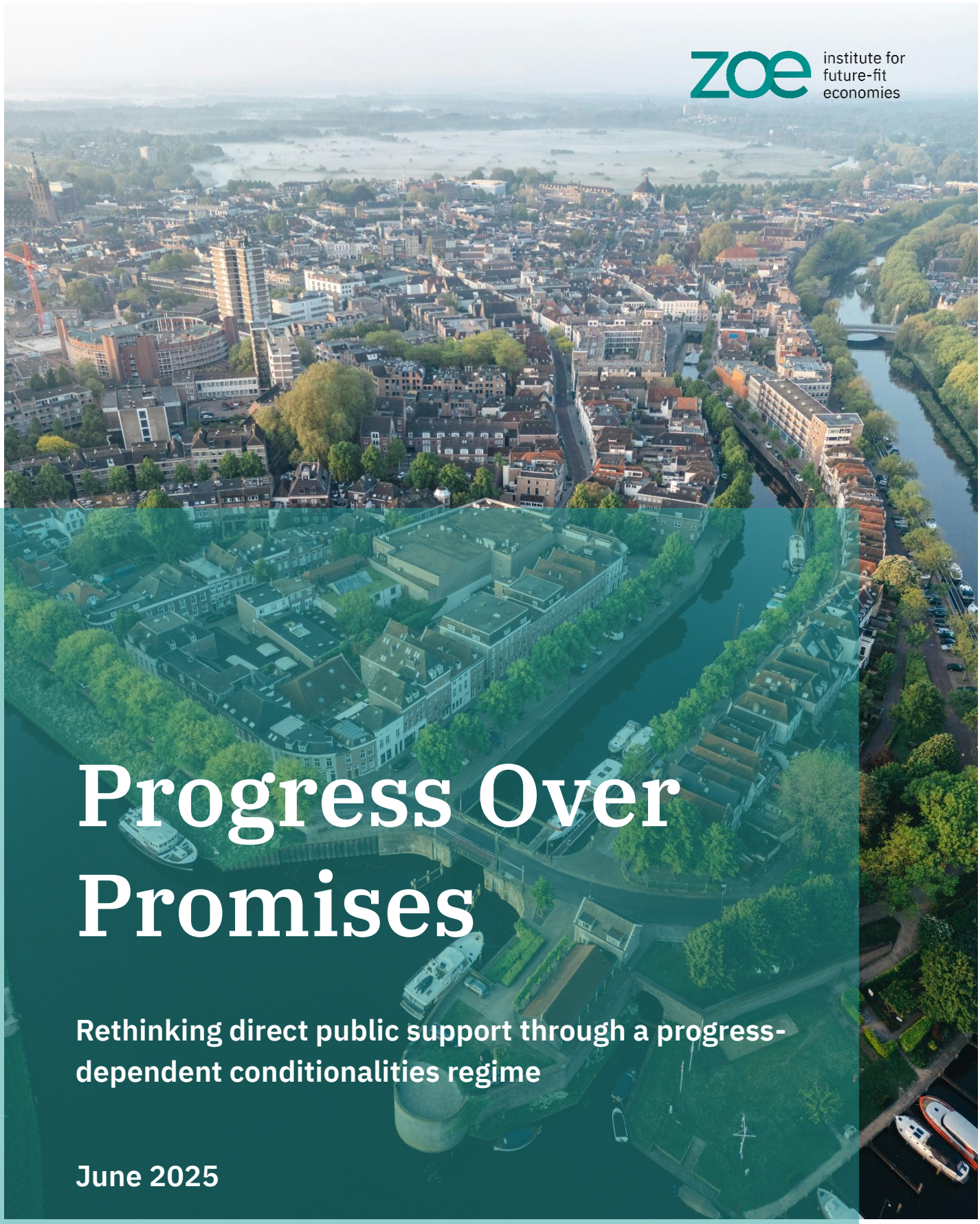

Progress Over Promises

Rethinking direct public support through a progress-dependent conditionalities regime

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Executive Summary

Industrial policy is once again a European policy priority. Governments need to commit large sums of public money to bridge the investment gap for the green transition and build Europe's long-term competitiveness, resilience, and sustainability.

Currently, there is no guarantee that companies who benefit from public support schemes will deliver desired outcomes. Decisionmakers face difficult choices when deciding who will receive benefits and profitable subsidies can be an invitation for excessive corporate influence and rent-seeking. Without careful policy design, intended outcomes can be missed entirely. The need for active intervention to shape industries brings a much-discussed problem back in focus: **How to best design public benefits granted to private firms?**

Attaching conditions to public benefits is part of the answer. Conditionalities aim to ensure a fair and reciprocal 'deal' between the public and private sectors. However, too often they are not tied to actual progress but to promises through lengthy screening processes intended to identify the 'best' recipients upfront. These procedures are bureaucratically challenging for both public administrations and businesses with limited capacities, potentially excluding promising candidates from benefits schemes. Furthermore, the focus on upfront planning as opposed to achieved progress can come at a cost of limiting technological flexibility and the opportunity of 'learning by doing'.

We propose the Progress-Dependent Principle to improve conditionality regimes. Benefit schemes designed according to this principle reward beneficiaries based on their actual progress towards public goals. It ensures a use of public funds that is outcome-oriented, competitive, and simple through three core components: binding progress targets, performance-based incentives, and open and fair access.

Binding targets that address productive, social, or environmental public priorities shift the focus from promised goals to achieved outcomes. The regime fosters technological openness as beneficiaries are free to choose how they meet targets and can change their approach if they find a better way to deliver public value. At the same time, the Progress-Dependent Principle enables a race to the top for the most efficient way of reaching progress targets. Only beneficiaries who meet the targets will continue to receive support, rewarding those that are most effective in contributing to environmental, social, and economic goals. By harnessing competition in this way, companies' priorities are aligned with public interest, paving the way for successful government action.

1. Introduction

Active government intervention in economic development has made a global comeback. In recent years the USA and China have led the way in actively intervening to shape their industries. With initiatives like the Clean Industrial Deal the EU is also committing considerable resources to revamp its industrial base.

Such government action is driven by the need to accelerate the green and just transition and to improve the resilience, sustainability and **long-term competitiveness**[1] of the European economy.

The ecological emergency, increasingly frequent economic shocks and geopolitical tensions, weaponised trade relations, and unstable supply chains show the need for increased **economic resilience.**[2] Active public support to the private sector is crucial to:

- Support strategically relevant domestic industries;
- Secure supply chains;
- Transition towards more renewable energy and recycled material usage;
- Protect infant industries in disadvantaged regions;
- Enhance regional resilience and cohesion;
- Create a business case for green technologies;
- Mobilise private capital for green investments;
- Create favourable conditions for innovative and strategically relevant firms;
- Ensure that workers benefit from the support provided to industries.

One key instrument at the disposal of public agencies like the EU and its Member States is **direct public support** to the private sector. In addition to untargeted horizontal policies, policymakers can give targeted incentives to specific subsectors or firms. These can be fiscal instruments like grants, loans, and tax credits. Or they can take other forms like preferential procurement policies or eased regulatory requirements. With these measures, public agencies attempt to direct the behaviour of private firms in ways that contribute to broader public objectives by turning them into beneficiaries of public support.

Direct public support does not guarantee positive outcomes in line with public goals. Companies' behaviour might deviate from the intended outcome – risking the ineffectiveness of the granted support and rent-seeking from beneficiaries. Public entities might struggle with 'picking winners' and a high bureaucratic burden could harm both public and private actors (Section 2). Without the right design, policies risk failing to deliver their intended outcomes.

To avoid these risks, careful design of the conditions attached to direct public support is essential. **Conditionalities ensure a fair and reciprocal 'deal' between the public and private sector** (Section 3.1). Currently, conditionalities are often enforced through lengthy upfront assessments of potential recipients. These procedures are bureaucratically challenging for public administrations and private actors and potentially even exclude suitable candidates from the benefit scheme (Section 3.2 & 3.3).

We propose **the Progress-Dependent Principle** (PDP): an approach to designing public support schemes that ensures an efficient creation of public value while reducing administrative workload. This is achieved by making direct public support to private actors dependent on their proven progress towards societal goals (Section 4). The implementation of an outcome-oriented conditionality regime according to the PDP requires a new framework for the design of public support schemes (Section 5). This framework can improve the effectiveness of direct public support schemes across a wide range of application cases by adjusting specific design elements (Section 6).

[1] We define long-term competitiveness as the sustained ability of an economy to produce products and services that are in demand on global markets. Preconditions for long-run competitiveness are political stability, environmental sustainability, and social resilience.

[2] Economic resilience is understood as the ability of economies to absorb, recover from and adapt to shocks whilst simultaneously delivering long-term societal progress.

2. Support without structure: a risky recipe

The success of public support schemes in creating public value depends on their ability to align private interests with societal goals. By offering direct support to companies, public agencies take on some of the risks and costs for specific investments and production. The goal is to change the profitability of desired activities and thereby mobilise private capital and productivity in support of societal goals. With proper uptake, changes at the firm level can indirectly shift sectoral competition and the overall demand situation in line with public aims. To achieve alignment, the support and conditions attached to it must avoid the fundamental risks of being ineffective, inefficient, or overly bureaucratic.

There always is a risk that public agencies end up supporting economic activities that miss societal targets, have no positive spillovers, or waste resources. Public support **fails to achieve societal goals when** it is not channelled into activities that create the desired change. This risk emerges when public benefits create the wrong incentive structures. This could be, for example, a subsidy for unsuitable technological solutions or a scheme that ends up making firms wholly dependent on subsidies, undermining their willingness to innovate and stay competitive in changing market conditions.

Another issue of direct public support is states' **difficulty to pick (the right) winners**. While any undertaking is subject to some risk of failure, a structural inability of public agencies to identify successful candidates leads to an inefficient and ineffective use of public benefits.

Public support always comes with the risk of beneficiaries engaging in unproductive behaviour such as **rent-seeking**. Without appropriate rules and safeguards, beneficiaries are incentivised to abuse public support schemes by demanding and extracting benefits above and beyond their need. This leads to an inefficient use of funds, and in the worst case, to counterproductive behaviour.

Lastly, **bureaucracy** can be burdensome to successful public support schemes. Lengthy procedures can offset the positive impacts of support schemes by delaying implementation and requiring considerable administrative resources. Furthermore, smaller undertakings might be implicitly excluded due to not having the administrative capacities required to apply for and pass these upfront assessments. The key challenge is to balance scrutiny and simplicity in the administration of schemes.

A well-designed support scheme can minimise these risks through incentives that align the behaviour of private undertakings with societal goals. This is achieved by balancing the support granted for desirable behaviour with the threat of withdrawing support in case of unwanted behaviour, determined by the conditionalities attached to public support.

3. Aiming for a fair deal: conditionalities

3.1 The rationale of conditionalities

Conditionalities ensure a fair and reciprocal 'deal' between the public and private sector. They describe the requirements and expectations that a beneficiary must meet to receive government support. Thereby, conditionalities safeguard the alignment of private interests with public policy goals in public support schemes.

Without effective conditionalities, direct public support risks turning into corporate welfare – a mere transfer of public funds and benefits to corporate actors without receiving any public value in return. Besides guaranteeing the translation of support into desired change, conditionalities also secure the public agency's control over policy implementation. Direct support schemes partially transfer the responsibility for implementing change to private actors. In this relationship, the public agency must keep a degree of control over the implementation process to avoid issues of mission drift. Otherwise, the implementation of public policy via the public's de-risking of private business activity may lead to the subordination of the state to corporate rent-seeking. Conditionalities allow the public agency a degree of control over the specific implementation processes by defining its terms and requirements. This 'infrastructural power' is crucial for directing economic activity.

3.2 Common challenges of designing conditionalities

A key challenge that public agencies face lies in **defining appropriate conditions**. To effectively shape economic development, bureaucracies must acquire a sound understanding of industrial processes as well as the skills to draft and implement effective policies to improve them. This usually requires acquiring information from, and collaborating with, private firms. At the same time, bureaucracies also need to stay autonomous from undue private interests. Like any successful industrial policy regime, the design of conditionalities therefore requires 'embedded autonomy': a balance of close collaboration and sufficient distance between the public and private sector. This position enables building the fundamental state capacity for actively creating public value.

Another key challenge when designing conditionalities is avoiding the risks of adverse effects. While conditionalities are introduced to direct the actions of beneficiaries, they can become sources of ineffective and inefficient processes themselves. In assessing a flagship EU public support scheme (Box 1), Schmitz et al. (2024) identify potential risks of conditionality regimes:

- **Perverse outcomes** – The specific conditionality design leads to unintended consequences that contradict the scheme's original goal.
- **Adverse selection** – Actors with limited administrative capacities are implicitly excluded as they cannot provide the complex formalised evidence required to prove their adherence to conditions.
- **Workarounds** – long and complex bureaucratic procedures incentivise public agencies and actors to seek arrangements outside of the conditionality framework.

It is, therefore, not sufficient to impose strict conditionalities to address the risks of direct public support (Section 2). The conditionalities themselves must be designed with a clear objective, allow fair competition for support, and reduce bureaucratic burden.

Box 1: The pitfalls of conditionalities: The case of Important Projects of Common European Interest

Important Projects of Common European Interest (IPCEIs) are a state aid scheme to achieve green and digital transition goals financed by EU Member States. IPCEIs have been set up by at least four Member States to embark on projects with high technological or financial risks and benefits for the entire EU. Schmitz et al. (2024) find that the conditionalities governing IPCEIs create costs in the form of increased bureaucratic burden, adverse selection, and perverse outcomes.

An example of *perverse outcomes* is that companies are no longer eligible for IPCEI funding when they move from innovation to commercialisation and mass production. Consequently, some firms report having abandoned perfectly viable products for fear of jeopardising their funding eligibility.

The high bureaucratic costs of applications have led to an *adverse selection* of candidates. Many SMEs cannot afford to hire someone to work on the acquisition and management of public support for multiple years. Organisations which cannot afford to show that they match all requirements are effectively ruled out of the process by the design of conditionalities.

The lengthy application processes for IPCEI funding strain the administrative capacity of companies, Member States, and the European Commission itself. In response, firms and Member States created *workarounds* that circumvented regular procedure such as mechanisms that allowed companies to begin their work prior to the final approval.

3.3 Upfront versus outcome-oriented conditionalities

Whether conditions are enforced upfront (i.e. ex-ante) or based on outcome (i.e. ex-post) has strong implications for their effectiveness. Upfront conditionalities describe conditions that need to be fulfilled prior to support disbursement. Outcome conditionalities are requirements for concrete results that a specific project must achieve. At the EU level, public support measures often rely on upfront conditionalities with detailed appraisals of plans and proposals prior to disbursement (Box 2).

Upfront conditionalities give public agencies the opportunity to review and assess upfront the specific proposals for how public support will be used. It further only requires a single due diligence process for proposals instead of repeated assessments of results. Yet relying on upfront requirements also reduces control over the implementation after funding is granted. This effectively increases the risk of not achieving public goals. To mitigate this risk, the upfront assessment often is very detailed which increases bureaucratic workload. This slows down the implementation, increases the risk of workarounds, and deters potential beneficiaries who don't have the necessary administrative capacity.

Compared to this situation, **outcome-oriented conditionalities** largely avoid these risks. They permit directing economic activity more efficiently and flexibly through direct state support. This has historically been a successful approach to industrial policy, for example during the industrial transformations in South Korea and China (Box 3). These cases illustrate the potential of active and outcome-oriented direct public support policies with a high degree of embedded autonomy.

Box 2: Conditionality in EU direct public support

In 2023, state aid to the private sector in the EU reached an amount equal to the EU's own budget (187 billion €). Increasingly, policy initiatives like the Important Projects of Common European Interest (IPCEIs) and the Clean Industrial State Aid Framework (CISAF) seek to drive the use of state aid in pursuit of the EU's competitiveness agenda.

While aid is granted by the Member States, each measure cannot move ahead without being notified to and approved by the EU Commission, unless covered by a block exemption.[3] During its investigation, the Commission must determine whether the measure falls under the EU's definition of state aid and is compatible with the requirements of appropriateness, necessity, and proportionality (see Section 5.4). The information for this investigation is submitted by the individual Member States. A plan or methodology for the systematic assessment of outcomes is not regularly required as part of the notification. The investigation process is generally understood to not just be an assessment of measures but also an opportunity for compliance bargaining, during which concerned parties can renegotiate the terms of the aid. This approach grants a large degree of control over planned projects to the Commission. At the same time, it might turn the specific support outcomes of state aid assessments into a matter of negotiation which would make them unbankable for the private sector. For assessments, the Commission relies on the use of funding gap calculations to ensure the proportionality (limiting aid to the minimum amount necessary) of an aid measure. Determining the funding gap requires applicants to estimate the expected expenses and revenues over the whole lifetime of an investment in contrast to a status quo scenario. The CISAF foresees funding gap calculations as one of three methods available to prove proportionality while it is required of all IPCEI-applicants. The funding gap calculation requires anticipating long-term costs and revenues of projects in advance. Such a speculative approach might ensure the feasibility of a proposal. At the same time, it might also risk corporate rent-seeking without the certainty that a projected positive outcome will be realised.

Some state aid procedures already follow more outcome-oriented approaches. The CISAF foresees output-based aid for direct price support to renewable energy in the form of contracts for difference. Under the Alternative Fuels Infrastructure Facility, grants are given per installed publicly accessible charging point. Similarly, competitive bidding to ensure proportionality is an established instrument. This, however, is reserved "for measures aimed at a large number of sufficiently comparable projects".

Lastly, the EU's **Recovery and Resilience Facility** (RRF) is probably the most notable example of performance-based conditionality regimes. Member States can only request support from the facility when they achieve the milestones and targets outlined in their recovery and resilience plans. The RRF marks the first funding facility that implements "financing not linked to costs" on a large scale. However, external reviews find that this does not necessarily guarantee progress (i.e. achievement of the desired outcomes). The lack of a harmonised approach in defining targets and the assessment of inputs and outputs rather than results, detract from the effectiveness of the facility.

In the past, the ZOE Institute has already outlined how fiscal governance frameworks could be reformed to effectively link fiscal leeway to tangible sustainability progress and how this approach could be implemented into EU fiscal governance.

[3] Out of the 186.78 billion € of state aid granted in 2023, 116.24 billion € were notified aid while 70.53 billion € were covered by exemptions.

Box 3: Outcome-oriented Industrial Policy in South Korea and China

South Korea and China can be read as model cases of economies moving up the industrial value chain, aided by outcome-oriented public support with strong conditionalities.

South Korea's Heavy and Chemicals Industries strategy of the 1970s established large credit, trade, and tax benefits for previously unprofitable strategic industries. The autocratic government was deeply involved in industrial processes and strategically directed the actions of companies under the initiative's umbrella. Ambitious production and export targets and the threat of withdrawing benefits, if these were not met, gave the government decisive influence over industrial development. By this strategy, the South Korean government directed the early formation of the conglomerates (chaebols) that still dominate its economy today.

Chinese industrial policy in recent decades saw the mobilisation of large amounts of state support to move national industries up the value chain and enable high tech innovation. This approach is exemplified in national strategies like 'Made in China 2025' or the '10,000 Little Giants'. Public support under these strategies begins with the identification of priority sectors and production goals. For these, large amounts of subsidies and other forms of assistance are made available by the central government. This support is administered by ambitious local governments who are looking to build regional champions. The most successful national actors survive the fierce domestic competition to become international players. This approach enables strong embeddedness on the local government level while ensuring autonomy in strategy and planning for the central government.

These models have significant drawbacks that make them not directly transferable to the EU context. Namely, the autocratic dimension in the South Korean case and the inefficient and untransparent system of regional subsidy cronyism in China. However, both approaches were hugely effective in introducing a strong outcome-orientation into national industrial policies by giving their public support policies a clear directionality to develop strategic sectors. In both cases, the central government avoided private sector capture, either by direct autocratic control, or via strong domestic competition.

To implement this outcome-oriented approach into EU and Member State policy, we propose a conditionality regime framework based on our concept of the Progress-Dependent Principle (PDP). Progress-dependent conditionalities do not only enable a more direct control over actual progress but also simplify administrative processes, offer technological flexibility, and facilitate a competitive race to the top between beneficiaries. The next section discusses, key design elements and general guidelines on the choice of targets, incentives, and eligibility.

4. Structuring support: a progress-dependent conditionalities regime

4.1 Core design elements

The Progress-Dependent Principle provides that the **assistance that a private enterprise receives should depend on the actual progress it has made towards societal goals**. By setting appropriate targets and making benefits dependent on their achievement, it allows the state to effectively direct the outcome of its support schemes. In its implementation, the progress-dependent conditionalities regime relies on open and fair access to performance-based incentives that are distributed based on binding progress targets.

Binding progress targets are measurable, realistic, and time-specific targets that beneficiaries are expected to achieve in order to receive support. They define the output recipients must to deliver to receive direct public support. Binding progress targets translate policy goals into tangible and achievable metrics for beneficiaries. If this translation is successful, progress targets ensure that the support scheme leads to the achievement of societal goals and the rewarding of successful enterprises. Tangible improvements are achieved by increasing the ambition of targets over time. The public agency assesses the achievement of targets at regular intervals. This iterative procedure induces beneficiaries to innovate and improve their procedural efficiency since they only profit from the performance-based incentives as long as they reach the increasingly more ambitious progress targets.

Performance-Based Incentives are key to motivate beneficiaries to achieve progress targets. Making direct public support dependent on actual results ensures that support is only continued for beneficiaries who use it to contribute towards societal goals. This guarantees greater efficiency in reaching societal goals and reduces opportunities for rent-

seeking as the conditions for support are determined unambiguously. In the PDP approach, the discontinuation of support is the main 'stick' at the public agency's disposal for disciplining. If this should be insufficient, for example during the reduction of support during a scheme phase out, incentives can also be accompanied by performance-based penalties.

Open and Fair Access is ensured by equal treatment and the widest possible availability to potential beneficiaries. The PDP approach minimises upfront conditions to stay open to applicants with limited administrative capacities. Public agencies should seek to include as many actors as possible in their first funding rounds to increase competition over the most efficient approaches. Ensuring a wide base of recipients increases the competitiveness of the process. Equal treatment gives all beneficiaries the same chance of emerging as the 'winners' at the end of the process.

4.2 Design outcomes

The core design elements ensure outcome-orientation and therefore effectiveness of the support scheme. By turning to performance-based conditionalities for direct public support, the PDP approach can enable three further positive outcomes:

A **simplified administrative process** that focuses purely on the setting and achievement of progress targets; full **technological flexibility** for beneficiaries in their approach to reaching these targets; and a competitive **race to the top** dynamic, rewarding the most efficient actors. When enabled by the PDP approach, these outcomes make support schemes easier to administer, more competitive, and highly efficient.

The PDP delivers **administrative simplification** by centring the assessment of outcomes instead of lengthy assessments of investment plans. Public agencies do not have to assess each individual project upfront. Instead, they only assess beneficiaries' progress towards pre-determined progress targets. Setting these progress targets and assessing the results requires a good level of knowledge and expertise from public administrators. However, in contrast to upfront assessments of plans, the state capacity required for this process is transferable to future schemes and constantly expanded through practical experience. For potential private beneficiaries, the PDP eliminates the need for drafting lengthy and complex investment plans. Thereby, the risk of adverse selection is drastically reduced, making access to aid schemes fairer and more competitive.

Beneficiaries have full **technological flexibility** when choosing the strategy by which they want to achieve their progress targets. They are free to choose innovative methods, provided these do not cause negative external effects, and can even change their approach throughout the scheme. As a result, the most appropriate solutions must not be determined in advance but emerge throughout the process. This dynamic might need to be restricted if the public authority chooses to support a specific technology or product.

Competition over the best approach to achieve increasingly ambitious progress targets enables a **race to the top**. Under Progress-Dependent conditionality regimes, beneficiaries have an incentive to continuously improve their performance. Only sufficiently well-performing actors keep receiving support after the targets ramp up. Through this competitive and technologically open process, the 'winners' emerge without public administration determining them upfront. To ensure bankability, the path and schedule of target increases must be known in advance.

4.3 Advantages

Overall, the goal of the PDP approach is to design conditionality regimes whose outcomes can easily be controlled by public agencies while being accessible and bankable for the private sector. It offers three main advantages for direct public support schemes: It is outcome-oriented, competitive, and simple.

1. Basing incentives on binding progress targets creates a strong **outcome-orientation** for the whole support scheme. Giving the public agency control over these targets means that they can control the outcomes of their support. The targets ensure progress towards societal goals, reduce the risks of subsidising inefficient undertakings, and avoid unproductive rent-seeking.
2. Providing open and fair access to the scheme, coupled with technologically flexible design, leads to a **competitive** race to the top. By successively excluding underperforming competitors from the scheme, support is allocated to the best-performing beneficiaries, reducing risks of inefficient support recipients and cutting bureaucratic effort of administrative support allocation.

3. An outcome-based, competitive process allows for more **simple** procedures. The PDP approach simplifies administrative processes by cutting the need to evaluate specific plans. This not only reduces bureaucratic burden but also provides a more transparent process with less rent-seeking opportunities.

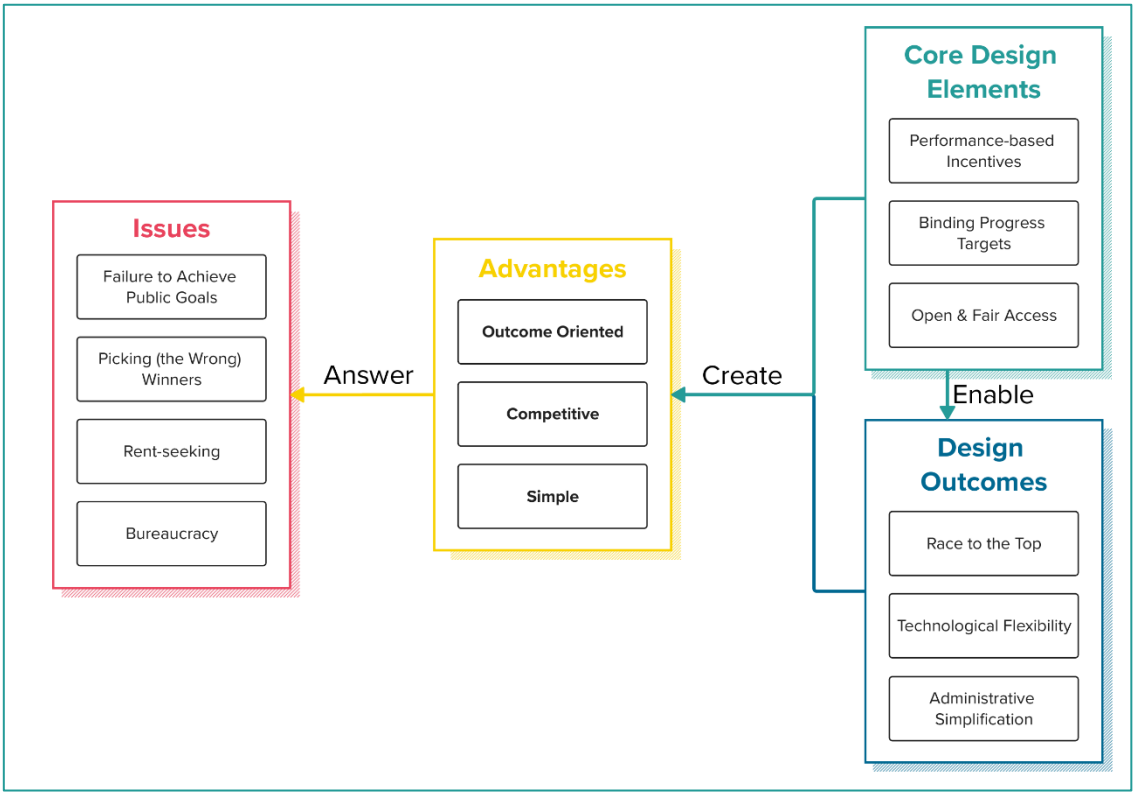

Figure 1: The PDP Design Scheme

5. The devil in the details: from policy vision to practical framework

The progress-dependent conditionalities regime is no one-size fits all solution. Different policy context will require different design choices. This section specifies options available to policymakers. To design effective and efficient support schemes, public administrations need knowledge and skills to identify desirable industrial developments, capture them in achievable targets, and design incentives that motivate beneficiaries. The specific design of each scheme should enable learning processes and thereby actively expands the state's capacity.

5.1 Upfront screening

Ideally, progress-dependent support schemes are open to all potential beneficiaries to circumvent the pitfall of 'picking winners'. Realistically, public administrations will have to define some basic requirements for admitting suitable candidates. Two types of criteria might be used:

- **Eligibility criteria** set the minimum requirements that are expected of potential beneficiaries. They are static expectations, formulated independent of the potential number of recipients. Eligibility criteria may be set to ensure that beneficiaries have a realistic potential to achieve the targets (e.g. through proving the existence of production facilities) or to set minimal environmental and social requirements. These standards should be continuously controlled during assessments to ensure that support-induced change is not achieved at their expense.
- **Dynamic selection** may be used to limit the pool of potential beneficiaries. This can be necessary if the amount of available support is insufficient to cover all potential beneficiaries. Dynamic selection can be

enabled by any requirements that limit the number of eligible recipients. Auctions are another especially effective tool to select a limited number of undertakings. Potential beneficiaries can bid on the amount of support they would need to reach progress targets, providing an effective selection procedure without restricting access through administrative procedures.

5.2 Progress targets

Progress targets transform long-term societal goals into short-term tangible objectives that undertakings can orient their actions towards. As such, progress targets should be:

- **A good proxy for desired outcome –** To ensure private incentives are aligned with societal priorities, progress targets must translate public value goals into actionable targets for companies.
- **Quantifiable and reliably measurable –** To make targets actionable for private enterprises and their achievement verifiable for public agencies, progress targets should be expressed as unambiguous numerical targets.
- **Pre-determined and non-negotiable –** To make schemes bankable for the private sector, their specific conditions need to be known upfront and not subject to change later in the process. The same goes for any potential exemptions or escape clauses. This allows undertakings to use them in their business and investment planning.
- **Ambitious but realistic –** To offer a productive but manageable path to improvement, targets must be challenging but manageable goals for beneficiaries.

Examples of progress targets for different goals

Goal	Possible Targets
Decarbonisation	Relative reduction of greenhouse gas emissions target
Clean Tech Production	Minimum quantitative production target
Skilled Workforce	Number of apprenticeships occupied within company
Adequate Infrastructure	Providing infrastructure service at pre-defined quality
Supply Chain Resilience	Minimum increase of local input share
Material circularity	Share of recycled material input
Energy Efficiency	Upper limit of energy-intensity of production
Electrification	Degree of electrification of production process
Waste reduction	Upper limit of waste-intensity of production
Grid flexibility for renewables	Minimum energy consumption to storage capacity ratio

5.3 Evaluation

The evaluation of progress towards targets determines whether support will be disbursed. It also is a key opportunity for the public agency to build knowledge about industrial processes and state capacity for future endeavours.

Evaluations should take place:

- **Regularly** at pre-determined points in time for the duration of the scheme;
- **Consistently** with the same methodology that is set in conjunction with the progress targets;
- **Transparently** by making criteria, methodology and results of evaluations publicly available.

Effective evaluation requires the public agency to have a good degree of embedded autonomy. The agency must be involved in the relevant industrial processes deeply enough to build the knowledge necessary for evaluating them but must also remain insulated against pressures from the private sector. This is a fundamental challenge for all industrial policy that cannot be solved purely by policy design. However, the essential role of regular evaluations will be a crucial practice that builds knowledge and understanding of relevant processes.

5.4 Incentives

Direct public support schemes must offer attractive rewards to the private sector that change actors' behaviour. At the same time, support should spare public budgets and avoid overcompensation or rent-seeking. To that end, existing public support frameworks like the EU state aid rules determine three requirements for public support:

- **Necessity** – targeted towards a situation where it can bring about a material development that the market alone cannot deliver
- **Appropriateness** – appropriate to the objective that the support measure aims to achieve.
- **Proportionality** – limited to the minimum needed for carrying out the supported project or activity

To ensure accessibility and a wide uptake, support schemes should further be **bankable**: The support scheme should be designed in ways that allows undertakings to plan their investments and participation in the program with clear funding expectations.

Incentives under the PDP approach will be necessary, appropriate, proportionate, and bankable if they are designed according to the following characteristics:

- **Performance-based** – Support is disbursed based on the achievement of progress targets. If these targets are set above the status quo and as a good proxy of desired public goals, the support will translate into the desired material development and therefore necessary and appropriate.
- **Competitive amount** – To ensure proportionality, the incentive strength should be set at a level close to the minimum amount needed to effectively change the beneficiary's behaviour. This amount could be determined by a public agency with good knowledge of industrial processes or through an auction.
- **Pre-defined** – The type of support as well as the conditions for its disbursement must be clearly defined by the original programme design and non-negotiable. Private undertakings will be able to plan investments and shift behaviour, only if the conditions and rules of a scheme are set and known ahead of the beginning, making it bankable.

Public agencies will face trade-offs between these characteristics when designing schemes, especially when incentives do not take the form of monetary transfers. Finding a good balance between these requirements will make incentives effective within the PDP approach.

One good option for designing incentives is output-based aid. Here, support is paid according to units of output.[4] Such aid is innately performance-based and pre-defined and can be combined with an auction to determine competitive aid amounts.

Some options for performance-based incentives

Type of Incentive	Incentive
Direct Financial Incentives	Subsidies (OpEx, CapEx)
	Grants
	Tax benefits
	Accelerated depreciation
	Preferential loans
	Targeted refinancing lines
Indirect Incentives	Public procurement priority
	Export credit guarantee priority
	Loan guarantee
	Future eligibility for direct public support

5.5 Phase-out

A public benefits scheme can either aim at providing a finite amount of goods or services or at permanently shifting economic activity. In the former case, the intended public value lies in the creation of a finite amount of desired goods or capacity, for example in the installation of specific infrastructure. Therefore, support can simply be discontinued once the goal is reached. In the latter case, the public value lies in shifting economic activity by making desired activities like specific production or service provision profitable in the long-term. Under these conditions, support must be phased out while avoiding a fall back to pre-support activity patterns when support is cut unexpectedly. To achieve this,

[4] A more detailed discussion of the advantages of output-based state aid and application proposals for decarbonisation support can be found in the 'State Aid 2.0' report by T&E.

support should be phased out either according to a pre-defined timeline or when a pre-defined, transparent condition is achieved. Depending on the case, the phase-out of benefits may be accompanied by the introduction of penalties that prevent roll-back. In either case, the public agency must communicate the support timeline and conditions reliably enough to integrate them into business plans and thereby make them bankable for the private sector.

6. Adequate policy design

The PDP approach formulates a new way of thinking about direct public support design for creating public value. Naturally it is not applicable to every form of public-private support relationship. To realise improvements, progress-dependent benefit schemes must ensure uptake by creating a bankable support outlook for ambitious private undertakings by allowing them to reliably plan with public support. To design progress targets under these circumstances requires knowledge of the desired output and certainty that the goals can be achieved by private undertakings. Projects with unclear outcomes and unpredictable progress like basic research and development should therefore not be supported under the PDP approach but by other means of public support. The PDP approach can, however, provide improvements for aims like commercialisation, scale-up, and expansion of desired goods' production or the gradual shift of industrial structures towards more sustainable and social behaviour. These goals can also be pursued under non-ideal conditions.

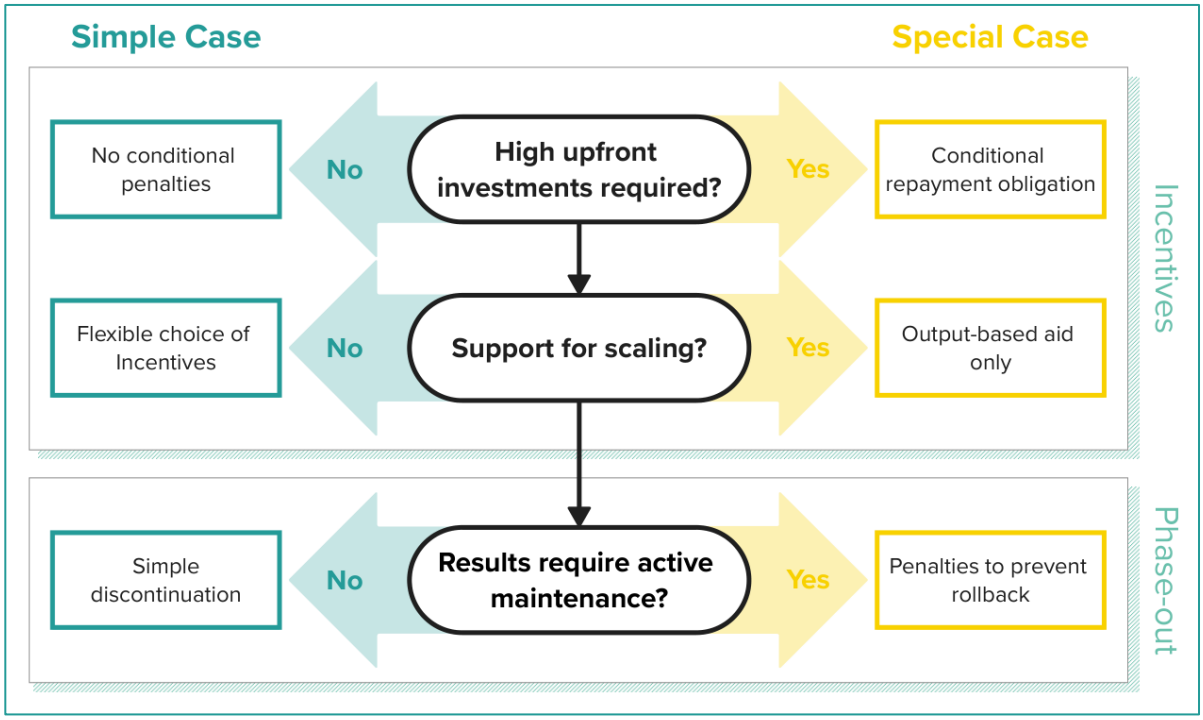

Figure 2: Policy Design Considerations

The simplest case for applying a PDP support scheme is a competitive sector with many eligible undertakings that do not require large upfront investments to participate but instead figure out their ideal approaches to reaching the progress targets throughout the process. Under these conditions, the public agency can set an ambitious path of increasing progress targets. It can choose the ideal type of incentive for each case and does not need to impose penalties beyond the threat of removing the incentives in case undertakings miss their progress targets. The support can be initially made available to as many potential beneficiaries as possible. In the subsequent pursuit of increasing progress targets, a race to the top dynamic emerges that eventually rewards the most efficient solutions. When the public goal is achieved (e.g. a new self-sustaining production equilibrium or critical supply of a specific good), support can simply be discontinued, having sufficiently shifted economic activity. There are, however, a few circumstances that require additional considerations concerning policy design (Figure 2):

- **High upfront investments** – If the supported undertakings require a large upfront investment (i.e. for CapEx), the public agency might provide the necessary aid. Subsequently, instead of offering support for achieved progress targets, the scheme can introduce a conditional repayment obligation that is triggered when a goal is missed.

- **Support for scaling** – If the scheme is aimed at scaling up a specific activity (i.e. the production of a certain good or the installation of specific infrastructure), the PDP approach loses its technological openness. At the same time, the certainty about the desired output allows the use of output-based aid as the most efficient form of performance-based incentive (Section 5.4).
- **Results require active maintenance** – A danger of rollback can exist if the state of production or infrastructure, achieved by the support, requires constant maintenance by the responsible undertaking. In this case, a simple phase-out of support risks a return to the pre-scheme state. Therefore, the phase-out should introduce penalties that can be enforced when results are not maintained.

Box 4: An example – Making energy subsidies dependent on expanding decentralised storage capacity

A key element of the green transition and global decarbonisation is the expansion of renewable energy. Meanwhile, the **price of energy** continues to be driven by expensive fossil sources. This dependence on fossil energy threatens industrial price competitiveness and – as seen in the past years – constitutes a major vulnerability to external shocks. Switching to local renewable energies could enable lower energy prices, industrial competitiveness, energy security, and economic resilience. However, the status quo of energy infrastructure does not yet support a full switch to renewables. A major obstacle is the volatility of energy supply through wind or solar power. **Decentralised energy storage** will form an important part of the solution to this issue by providing the required flexibility of the energy system. At the same time, energy-intensive industries who are struggling with high energy prices require urgent relief. EU Member States increasingly offer direct support to lower energy costs. However, subsidies without proper conditionalities are not solving the issue at hand and could even create perverse incentives, as energy prices are kept artificially low. The burden is merely being redistributed.

A more effective way to grant energy subsidies would follow the Progress-Dependent Principle, using adequate progress targets. A suitable progress target for companies benefiting from subsidised energy prices could be an increasingly ambitious **ratio of local energy storage capacity to energy use**. As long as the set ratio for a given period is reached, a company will continue to benefit from a subsidised energy price. Such a program would itself contribute to the change needed to eventually make governmental support superfluous. In this case, a lasting change to energy prices could be achieved by increasing the flexibility of the energy system through additional storage capacity.

Access to the programme would be open to any business that wants to benefit from subsidised energy prices. Measuring progress through a ratio creates proportionate of targets for firms of different size and energy use. There would be full flexibility in the choice of storage technology. The ratio can naturally also be improved by reducing energy use. An additional aspect requiring attention is the expectation of high upfront costs for the installation of energy storage. If additional direct public support is needed, such as a grant to finance upfront investment, it might be necessary to include a conditional repayment obligation in case of non-compliance with minimum energy storage capacity over energy use ratio.

By making use of a progress target that operationalises the public priority of a flexibilisation of the energy system, a conditionality regime for energy price relief granted to the private sector would not only treat symptoms but foster lasting change. Increased storage capacity would allow the share of renewables to expand, which would permanently lower energy prices.

7. Conclusion

The challenge of building a long-term competitive, sustainable, and inclusive European economy requires active shaping of industrial and economic processes. Direct public support is a powerful and widely utilised tool that allows governments to move private actors and wider markets towards the creation of public value. Progress-dependent conditionality regimes can govern direct public support to the private sector in a more effective and efficient way. Approaching these support relationships according to **the Progress-Dependent Principle (PDP) can enable improved outcomes, harness competition, and increase simplicity.**

The three core design elements of the PDP approach are: open and fair access, performance-based incentives, and binding progress targets. These elements orient policy design around achieved progress towards public goals as the main conditionality for support. Furthermore, they can enable a race to the top, technological flexibility, and simpler administrative implementation of support. When implemented properly, the PDP approach offers a more effective and efficient way to design public support schemes compared to established upfront approaches.

The main task for the implementation of effective outcome-oriented conditionality regimes lies in building and maintaining public administrations' capacity to successfully understand and intervene in economic processes. Translating public value creation into actionable goals for the private sector and assessing their success requires a strong degree of embedded autonomy from public agencies. This, however, should not be an obstacle. EU public bodies are already in a strong position to meet this challenge, and the implementation of progress-dependent public support would provide great opportunities to build knowledge and experience through regular assessments. Building this capacity is a crucial step to improve the ability of public agencies to understand, support, and shape our common economic base. Good governance of public benefits will be decisive for the success of the green and just transition, and for building Europe's long-term economic resilience.

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