



# How to do green industrial policy?

Bruegel Blueprint

A green industrial policy  
for Europe

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<https://www.bruegel.org/2020/12/a-green-industrial-policy-for-europe/>

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# The scene for Green Industrial Policy

*EGD: European Green Deal*

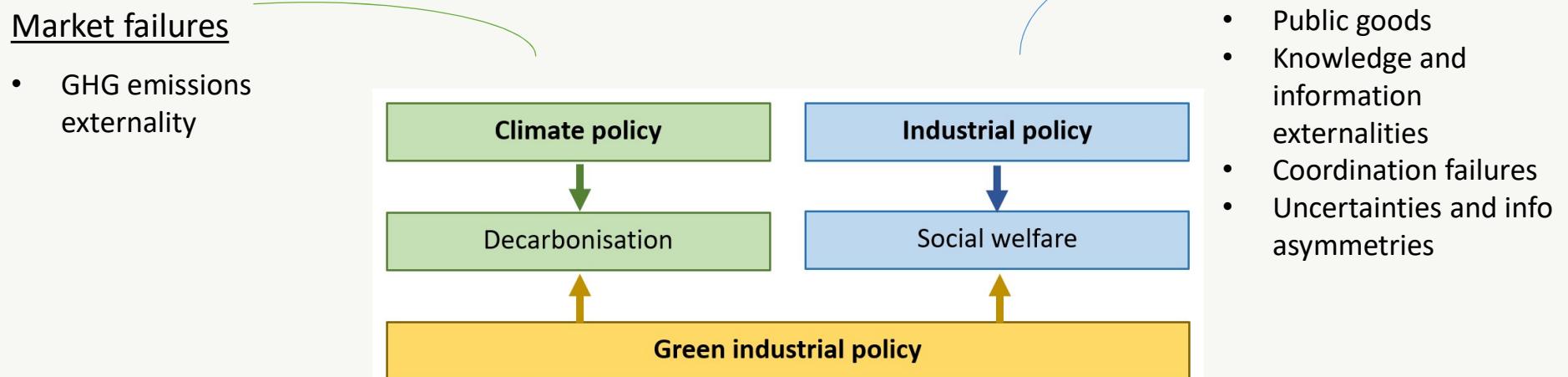
*GIP: Green Industrial Policy*

- **EU's green ambitions, e.g. :**

- European Green Deal: 55% emissions reduction by 2030 & climate neutrality by 2050
- MFF 2021-2027: About €1000 billion – 30% to be devoted to climate
- NextGenEU 2021-2024: €750 billion – 37% to be devoted to climate
- **EGD implies big transformative changes for business and society at large, with winners and losers**
- **Ensuring enough winners of the EGD is vital to keep the process going:** decarbonisation needs to be economically viable and socially supported
- Increasing attention on Industrial Policy component of EGD: **Green Industrial Policy**, but its **concept remains unclear**
- Provide a set of **principles and tools** for the development of a **GIP** and recommendations for GIP

# Defining green industrial policy

- GIP: an **industrial policy where climate change mitigation becomes a binding constraint in the policy objective**
- **Key challenge for GIP: address both** classic market failures (IP) and the GHG emissions market failure (CP)



GIP needs to go beyond the general industrial policy toolkit, asking for a **GIP policy mix, with at least coordination of CP & IP instruments, possible supplemented with dedicated GIP instruments**

# A New Industrial Policy approach for a green industrial policy

New industrial policy acknowledges a broader **multidimensional** set of objectives (beyond competitiveness)

New industrial policy acknowledges both the need for intervention, rooted in market failures, and the **implementation difficulties** (government failures)

New industrial policy moves the debate away from the view of industrial policy as a mere set of tools to allocate resources, towards understanding it as a **process**.

- ① **Information capacity** of bureaucrats and administrators to allocate correctly public resources on the market (particularly when picking winners)
- ② **Risks of rent seeking** and “**capture**” (e.g. lobbying efforts to capture rents coming from public finances, notably in poor institutional quality settings)



## Insights from “new industrial policy” for CC policies

- Strong **operational governance** to address coordination among different types of stakeholders, different policy governance areas
- **Flexible policy design**, addressing the information problem with learning from monitoring & evaluation;
- **Public private partnership**, blended finance; willingness to co-finance from private sector to weed out rent-seeking
- **Long-term commitment** and accountability from parties involved through a balanced set of sticks and carrots
- Allow for **policy experimentation**, but with clear monitoring & evaluation plan, such that unsuccessful experiments are stopped/restructured in time
- **Taking risk**, not avoiding failure, by targeting particularly new to be developed eco-systems and markets, with stakeholders previously unconnected. Adapting dedicated processes and instruments to de-risk “new” projects (smart development banks, intermediate milestones...)
- Deploy a **mix of policy instruments**: carbon pricing, grants&co-financing, green regulation and standards, green public procurement...

# A new industrial policy approach for GIP

- ✓ New industrial policy elevates the industrial policy discussion from strict economic goals to **broader societal goals**.
- ✓ Climate change is a big transformative change, requiring **public-private partnerships** and the involvement of **civil society**
- ✓ **Urgency** is dictated by the climate crisis: need to take actions even when high uncertainty and risk of failure: process & experimentation; long-term commitment
- ✓ High risk for **implementation failures**: governance model is critical
- ✓ More **directionality**: support for green technologies:
  - ✓ Green technologies have higher **knowledge externalities**
  - ✓ Green technologies, often still early stage, face **higher risks, higher information and coordination failures**;
  - ✓ Green technologies need a policy push to counter the **locking-in of fossil fuel** based technologies and their path-dependencies
    - ✓ **Hidden support to fossil fuels**
- ✓ Climate change is a **global commons** problem: international coordination

# Green industrial policy in practice

After looking into GIP in practice in **Germany, the Netherlands, Denmark and the United States** the following elements showed a strong importance in the success of the policy:

1

## **Effective collaboration between all elements of society**

- i.e. Citizens must accept policies, private sector must contribute with knowledge and expertise
- ex. Dutch Klimaatakkoord, Danish cooperative ownership structure in wind industry, German public-private partnerships

2

## **Long-term policy stability and predictability**

- ex. Stable and sensible policy support helped Danish wind industry
- Dutch policy inconsistency impacted the effectiveness of energy transition programmes
- Progressively adapted targets for EE in buildings in Germany exemplifies predictable policy

3

## **Not putting all eggs into one basket**

- i.e. Need for a balanced set of instruments
  - Mixing demand pull – technology push
  - General and horizontal – specific and targeted instruments

4

## **Clearly defining and understanding the relative importance of “green” and “industrial policy”**

- ex. Germany’s solar panels experience is not a failure in terms of green goals and there is economic value added and jobs created in the servicing of solar panels

# Green industrial policy in the EU

	Innovation and technology	Investments and deployment	Framework conditions
EU	Framework programmes (Horizon Europe); European Innovation Council; <b>Missions</b> ; EU Innovation Fund	<b>EU budget and Next Generation EU; European Investment Bank</b> ; Single market rules (e.g. green public procurement)	Coordination of national industrial policies (e.g. European Semester, RIS3, IPCEIs); Competition policy; Environmental standards; <b>Climate policy (e.g. Targets, carbon price, renewable and energy efficiency targets, clean standards)</b> ; Development policy; Monetary policy
National	Public R&D spending; Intellectual property protection law (at EU level)	Consistency of macroeconomic policies with industrial strategy; Climate targets; Environmental standards; Environmental taxation	Government investment programmes, incentives, subsidies, public procurement, clean energy standards
Regional	Implementation of public-private partnership in place-based setups (e.g. university-industry collaborations)	Smart specialisation strategies; Regional Investment budgets; Implementation of EU Cohesion policies	Regulations (such as buildings energy efficiency)
Multitude of policy initiatives on different geographical layers and competencies, <b>need for coordination</b> to ensure single market scale, a level playing field and avoid conflicting initiatives			

## EU tools for GIP: European Alliances & IPCEIs

- European alliances aim at **creating European integrated, cross-border, value chains** in technologies that are considered as central for the future of the energy transition
  - Examples: ‘European Battery Alliance’ and ‘European Clean Hydrogen Alliance’
  - They constitute a **network** of key industrial and innovation players (including SMEs), regional authorities, national authorities, the EC and the EIB
  - Importantly, projects developed in this context are **Important Projects of Common European Interest** and are thus **allowed to receive State aid**

# EU Policy recommendations for a GIP

## Further development of public-private partnerships (Alliances, IPCEIs, Missions..)

*Selection and governance based on **new green industrial policy principles cf supra***

- Focus on **mega-problems** covering whole value chains of all relevant clean markets
- Iterative collaborations between a **broad set of actors**: institutions at regional, national, EU level with businesses from different parts of the value chains and citizens.
- Activate **co-funding, access skills, knowledge and information**
- Employing a **balanced mix of**
  - Ⓐ Already-connected value chains that need to be scaled-up  
BUT ALSO (and perhaps MOST)
  - Ⓑ Very early-stage emerging value chains with still-to-be-connected stakeholders (regardless of higher failure rates)

Make use of the **EU competition policy toolbox**, *given sufficient dedicated expertise*, to **avoid rent seeking** and ensure the power of **competition for innovations** in new clean markets

# EU Policy recommendations for a GIP

## Horizon Europe for a GIP

- Balance and coordination between directed/missions and bottom up (EIC, ERC)
- Develop a portfolio of directed green missions: allocation to projects with largest **socio-economic and climate returns**, focus on **early stage technologies** with potential for general-purpose breakthroughs
  - A portfolio approach that includes risk-taking and not only safe bets with average returns: preference/no-bias against risky early stage clean projects,
    - High potential for breakthroughs
    - High risk of market/network failures/funding gap
  - New support models that provide grants in a non-bureaucratic way with independence, yet clear targets and accountability: An ARPA-climate?
- Leverage EU public resources and toolkit to scale-up national and regional public resources that go into climate innovation + mobilise private investment
- **Avoid greenwashing:** a methodology for monitoring & reporting CC impact
- Ensure that the **remaining non-green part of Horizon**, not going to climate innovation, does not work against green targets: **mainstream green monitoring**