



## Just Transition Platform – Policy approach:

# IN4CLIMATE.NRW AND SCI4CLIMATE.NRW

Germany, North Rhine-Westphalia

This document is part of a series presenting information and lessons learned on policy approaches at national, regional or local level supporting a just transition to a climate-neutral economy. The Just Transition Platform (JTP) assists EU Member States and regions to unlock the support in this transition. Visit the JTP website: [https://ec.europa.eu/regional\\_policy/funding/just-transition-fund/just-transition-platform\\_en](https://ec.europa.eu/regional_policy/funding/just-transition-fund/just-transition-platform_en)

**Member State:**

Germany

**Region:**

North Rhine-Westphalia

**Sector:**

Energy intensive raw materials industry (steel and metals, chemicals, cement, glass, paper and building materials)

**Total budget (€):**

Originally: €16 million (2018-2022); From 2022 onwards: €17 million annually (for whole NRW.Energy4Climate organisation)

**Financing conditions (co-financing rate):**

N/A

**Sources of funding:**

EU funding: Not currently foreseeable if/how ERDF funding may be used.

**National funding:**

No national funding

**Regional funding:**

Ministry of Economic Affairs, Innovation, Digitalisation and Energy

**Duration:**

2018-2022 (aligned with legislative period); since 2022, NRW.Energy4Climate combines all climate protection and energy initiatives of NRW.

**Responsible Managing Authority/Agency:**

Country organisation 'Landesgesellschaft NRW. Energy4Climate' (officially since 2022)

## Summary

The platforms IN4climate.NRW and SCI4climate.NRW are meant to pave the way towards climate neutrality for the industrial sector of North Rhine-Westphalia. This is an important step for the region as the industrial sector accounts for 22.4 per cent of North Rhine-Westphalia's greenhouse gas emissions. The Ministry of Economic Affairs, Innovation, Digitalisation and Energy has launched the platform to start the process

and engage representatives from science, industry and politics. By doing so, a socially accepted, economically feasible and ecologically sensible transformation should be ensured. The platform should provide impulses for the industry's transformation process, not only in North Rhine-Westphalia but also in other states of Germany and internationally by engaging in cooperation projects.

## Type of policy measure/activities:

The platform IN4climate.NRW is meant to develop strategies and concepts for a climate neutral industrial sector through collaboration between different stakeholders from science, industry, and politics. Furthermore, key research needs should be identified. The goal of the initiative is to ensure the competitiveness of the regional economy and secure jobs when transforming into a climate neutral economy. At the moment, the work of IN4climate.NRW is structured in five different working groups:

- hydrogen
- industrial process heat
- carbon economy
- circular economy
- policy frameworks

The platform is assisted by the scientific competence centre SCI4climate.NRW, which is an association of six different scientific institutes and works closely with the IN4climate.NRW initiative. The goal of SCI4climate.NRW is to support the IN4climate.NRW platform with scientific expertise. SCI4climate.NRW is structured along four key research topics:

- technologies and infrastructures
- products and value chains
- scenarios and transformation paths
- framework conditions and business models

Both parts of the initiative work in close collaboration with regular exchanges.

## Goals and approach:

The IN4climate.NRW platform's approach on achieving climate neutrality is to provide support to companies in implementing strategies for climate neutrality. The main goal of the initiative is to achieve the transition and ensure workplaces' and the economy's competitiveness at the same time.

To reach this, the initiative follows several goals/tasks:

- Central research needs are identified. Fields of research and innovation for climate-neutral industrial production will be included.
- Ideas for research projects are developed and initiated.
- Scientific and technical strategies are developed to ensure the future viability of the industry.
- Technology studies are conducted and by doing so, the necessary regulatory and political framework conditions are considered.
- Consistent possible production – specific development steps are identified.
- Innovation roadmaps for implementing leap innovations are developed.
- Financing instruments are discussed and developed.
- The economic production of climate-friendly products is facilitated.

## Important outputs, results or achievements:

The platform has produced several discussion or working papers on how to actively design a carbon-neutral industry. The competence centre SCI4climate.NRW has contributed significantly by providing scientific insight and research directly to IN4climate working groups, and more generally through numerous reports and peer-reviewed papers (available on the IN4climate.NRW website).

One main achievement is that the new strategies of the ministry for economic affairs in North Rhine-Westphalia (e.g. the hydrogen roadmap of 2020, or the carbon management strategy 2020) were highly influenced by the work of IN4climate.NRW and SCI4climate.NRW. The initiative actively supported the ministry in developing them. Furthermore, large industrial projects benefited from working with IN4climate.NRW, since this cooperation has accelerated the progress of the projects.

## Scalability<sup>1</sup> and transferability<sup>2</sup>:

The initiative is scalable only to a smaller extent. Key for the success of the initiative is that regional players are involved and a certain sense of belonging must exist between the stakeholders. This is more difficult to achieve at a bigger scale. Moreover, a larger scale might result in a stronger selection of participants and the introduction of hard criteria for selection purposes. The broad focus of the initiative might also lower the scalability and a specific focus on certain industries might result. Geographic proximity is also an important factor because it allows an easy personal exchange between the involved actors.

A high degree of transferability is given, however. Regions that have a strong regional industry with various sectors and a high density of scientists could profit the most from the approach of IN4climate.NRW. The different sectors should be able to profit from joint efforts (e.g. concerning shared infrastructure) and a political willingness to achieve a climate neutral transformation needs to be given (including the willingness to finance and coordinate initiatives). In general, the initiative has model characteristics for regions, with a regional, structured industry and a high-level sense of belonging.

<sup>1</sup> Scalability entails that a policy approach can be adapted to a bigger scale than just the local context.

<sup>2</sup> Transferability entails that a policy approach can be applicable to a similar setting and replicated.

## Key success factors and lessons learnt:

One of the key success factors of IN4climate.NRW is that different players (within politics, science and industry) are involved in the initiative. Several sectors are involved from industry, which creates a more integrative approach, allows cooperation and the creation of synergies. Moreover, the initiative is related to the region. This creates certain affiliations among the members/partners. There is a low participation barrier for new members – only a strong interest in becoming climate-neutral with a concrete vision must be given. Theme related working groups allow the treatment of energy related topics but also of political framework conditions.

SCI4climate.NRW ensures that its work is based on a broad knowledge base and that the interests of industry are constantly balanced with a broader and more systemic view of the transition. The research benefits from the exchange with players from industry. Further impulses by the industry contribute to keep the research up-to date and addressing the concrete needs of the transforming industry.

One 'lesson learnt' is the insight that, while industry transformation projects are usually not initiated directly within IN4climate.NRW, IN4climate.NRW creates facilitating conditions for such projects. The companies develop a concept on their own (after receiving some impulses by IN4climate.NRW) and then IN4climate.NRW supports the realisation.

## Key challenges:

One of the key challenges is the definition of the group of participants. At the moment, the participants come from the energy-intensive raw materials industry. This focus allows a mutual trust between the actors and keeps the participant's group manageable. However, the transition towards a climate-neutral economy is affecting all sectors/branches in the economy. Therefore, the question remains if the initiative should open its membership criteria for more diverse actors from the North Rhine-Westphalian economy or if another forum would be more suitable to discuss in a broader circle. Another open question is the further integration of civil society in the process. There are already exchange formats with civil society in NRW concerning climate topics (e.g. KlimaDiskurs.NRW). If and how civil society will be further involved in the initiative remains to be seen.

## Central framework conditions<sup>3</sup>:

The economy of North Rhine-Westphalia is highly influenced by the industrial sector. The sectors of mechanical engineering, chemicals, iron, steel, automotive and energy especially contribute a large part to the region's economic performance. A strong industry with a high number of companies in various industrial sectors is a decisive element for the work of IN4climate.NRW. Furthermore, NRW has a high density of research institutions and universities, which is an important factor to enable close scientific support by SCI4climate.NRW.

Developing a climate-neutral and sustainable economy is an important concern of the North Rhine-Westphalian government. In order to achieve this objective, cooperation with the industry is central, however, a precondition for this cooperation is that the industry itself is interested in following this path and willing to show initiative.

## Outlook:

In the past, the initiative concentrated on the indeterminate future. However, the government of NRW has decided in 2020 to achieve certain interim targets by 2030 on its way to achieve greenhouse gas neutrality by 2045. As a result, the initiative must plan and work at shorter notice.

Moreover, due to the COVID-19 pandemic the initiative had to move events and meetings to digital formats. This complicated the stakeholder bond. It remains important for the initiative to further strengthen the bond with its stakeholders.

<sup>3</sup> Framework Conditions encompass the institutional, informational and socio-economic factors that determine a given environment (contextual information), e.g. market conditions, access to finance, tax regulation, infrastructure and support.

## Other comments:

For the scientific part of the initiative, it is important to challenge the position of the industry from time to time, if it is deemed necessary. By doing so, a balance of the views within the initiative is guaranteed.

## Partners & contacts:

Initiated by Ministry for Economic Affairs, Innovation, Digitalization and Energy of the State of North Rhine-Westphalia

Partners from industry:

See list:

<https://www.energy4climate.nrw/industrie-produktion/in4climatenrw/akteure/industriepartner>

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Institutes of SCI4climate.NRW:

- Wuppertal Institut
- Fraunhofer-Institut für Umwelt-, Sicherheits- und Energietechnik UMSICHT
- Institut der Deutschen Wirtschaft (IW) Köln
- Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen
- VDEh-Betriebsforschungsinstitut (BFI)
- Verein Deutscher Zementwerke (VDZ)

**Website:**

<https://www.energy4climate.nrw/industrie-produktion/in4climatenrw>

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