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From: German delegation
To: Council

Subject: European platform for transformation technologies
- *Information from the German delegation*

Delegations will find attached an information note from the German delegation on the “European platform for transformation technologies” with a view to the meeting of the Competitiveness Council on 29 September 2022.

Initiative to establish a “European platform for transformation technologies”

With the will to accelerate the phase-out of usage and dependency on fossil energy sources, the European Commission has decided in its Repower-EU Plan to decisively promote the expansion of renewable energies – just as many member states. However, the EU does not have sufficient industrial production capacities to meet the rapidly growing global demand for transformation technologies, notably from domestic production. In strategically important technology fields of the energy transition as a pre-condition for the industrial transition, there is a far too high dependence on imports from outside the EU. A more far-reaching initiative also seems necessary against the background of investment subsidies foreseen in the USA within the framework of the Inflation Reduction Act.

To prepare the EU properly for taking up these challenges the considerable expansion of renewable energy systems and other transformation technologies will demand the availability of technologies and industries necessary for products for the energy transition, for the achievement of climate targets and as a pre-condition for the decarbonisation of industries. A key prerequisite for this is significantly increased production capacities within the EU and a response to emerging problems in a timely fashion.

To address all the different questions related to this and to put the EU on a future-proof path we propose the establishment of a “European platform for transformation technologies”. The aim of the initiative is to ensure the development of industrial value creation in the area of central transformation technologies such as wind power, photovoltaics (PV), electrolysers, electricity grid and cable industries, heat pumps, their equipment and suppliers. The associated mechanical and plant engineering companies, component producers such as electronics, raw material suppliers - and processing, recycling should also be included. It is crucial to consider the entire value chain in a pan-European context.

The particular urgency of the project results from the increase in the expansion targets for renewable energies to the effect that by 2030 at least 80% of electricity consumption and by 2035 the electricity supply should be based almost entirely on renewable energies. A corresponding, further accelerated expansion of PV and wind power plants as well as the necessary adaptation of the electricity grids can only be realised if industrial production capacities for these products are available on a sufficient scale in the near future. However, since the current trend is in the opposite direction, i.e. a reduction rather than an increase in production capacities, there is a high time pressure for suitable measures to be taken this year to counteract this. To this end, it is crucial that a high-level dialogue provides initial insights into relevant obstacles and options for action as quickly as possible. The urgency of exchanging views and taking appropriate measures is also repeatedly emphasised by industry.

With the help of such a platform, the European potential could be tapped more broadly and used from the outset in order to achieve technological sovereignty and stable supply chains for the transformation and to jointly develop economies of scale on the basis of European standards. Positive side-effects include higher geopolitical independence, strengthening strategic value chains in the EU, local job creation, above all a more resilient European market. This would benefit all European member states and their enterprises if the issue of optimal industrial production of transformational technologies is not only considered on a national level but elements of European specialisation and of scale and scope are considered too. We wish to give all interested parties the opportunity to join in.

In recent years the establishment of several European industrial alliances has proven to provide for pan-European cooperative, stakeholder-driven platforms to organize a “European case” in sectors such as batteries, hydrogen, raw materials and others. Outcomes have been e.g. multiple forms of common investment, common activities in research and resulting production capacities as well as cooperation agreements. A direct role model of our idea is the European Battery Alliance (EBA), founded in 2017. With the help of a coordinated approach, Europe has succeeded in establishing an important industrial value chain in Europe in just 5 years. At the same time qualifying European players for large-scale industrial production on the basis of their own research and development has been achieved. Market research shows that the EU is well on its way to deliver about 30% of the world market in battery cell production until 2030! This good-practice is now being implemented as part of several other alliances, notably on Clean Hydrogen, Raw Materials, semiconductors, and, soon, on solar energy.

Building on the setup of the EBA and other alliances, the first step would be to establish a political high-level body under the leadership of the European Commission with participation by all relevant stakeholders representing the entire value chain of the relevant sectors.

It makes sense to base the platform on two pillars:

- In a political body, the EU Commission, interested EU member states and the European Investment Bank cooperate, especially on the basis of the RePowerEU plan.
- The second pillar would be open to EU businesses, which work together in specialized working groups to identify necessary business and policy measures.

The work will be merged into a strategic action plan to identify priority areas for action in terms of i.a. investment needs, project sequencing and regulatory changes. The action plan would also discuss the possible need for support instruments and to develop an open catalogue of measures for politics and industry.

As concerns structuring the work the dialogue should be conducted with representatives of industry and other stakeholders, the aim of which should be to identify and analyse the challenges and obstacles of the wind energy, photovoltaic, heat pumps, electricity grids/cable industry sectors and other residual parts of the relevant value chain with regard to the expansion of production capacities for the energy transition and for climate technologies. Sub-groups could be formed for individual technologies to ensure a compact discussion and thus increase the intrinsic value for the industrial stakeholders. The central focus should be on identifying and reducing bottlenecks for the expansion of production capacities in the above-mentioned sectors and stages of the value chain. Recommendations for action on the basis of these findings would be another outcome.

With a platform for transformation technologies, a European format would be created to help find suitably specialized partners for production, to place knowledge about the barriers and challenges to ramping up European production in the respective transformation technologies on a European scale right from the start. Its aim would also be to work on concrete solutions, also of a trade policy nature, and to concretise the research and development needs to be addressed jointly up to the ramp-up of renewable energy plants for the next few years. To this end, the initial situation (current market situation, raw material and competitive situation, current deficits for economic production in the EU) must first be briefly recorded. A ramp-up of domestic production capacities is needed against the background of the high demand and international competition for transformational technologies expected in the coming years, the associated value creation potential and also with a view to the strategic sovereignty of the EU in these sectors.

The central task of the platform should be to develop a strategic action plan of concrete requirements (e.g. investment, project pipeline, regulatory changes) needed for production, trade and deployment of transformation technologies with short-, medium- and long-term visions. Following on from this, it should be determined which economic framework conditions the respective sectors need in order to rebuild and increase production in Europe, at least to the extent required to achieve the political goals, and to secure supply chains for raw materials and (intermediate) products. Challenges on the demand side (e.g. acceleration of planning and approval procedures) would be given consideration insofar as the problem of demand stabilisation/market dynamics or the demand risk currently impairs the willingness of companies to invest and thus the expansion of production capacities. In this context, it should be considered which state instruments should be used and which European support programmes should be used, expanded or set up.

To give further examples of issues that might need our attention: In the area of wind power plants, for example, a guarantee instrument is currently being discussed by industries in order to reduce risks during project planning and to trigger early orders from plant manufacturers. In the solar industry, hybrid capital instruments are proposed in which private investors and the state participate equally. In addition, the need for research and development on technologies and components and also suitable locations for the formation of technology clusters must be discussed. The effects of the changed geopolitical situation, the goal of resilience and concrete protectionist measures in important third countries should also be considered.

We are convinced that every EU member state - and the EU as a whole - would benefit greatly from this platform: From an economic, geopolitical and especially from a sustainability perspective. The platform can provide support in how change can be managed quickly and gives a response to emerging problems in a timely manner.