Europe should show by example of success, that setting right framework leads to successful transition

Transition of industry and society is requested to battle global warming
- Challenge is unprecedented, but not insurmountable

European industry to show leadership in global decarbonization
- European industry and society to be the solutions provider
- Innovative and highly efficient EU manufacturing industry is well positioned for low-carbon future

European industrial innovation needs support of European policies
- Support by society and European and National governmental institutions
- European policies need to enable European industry to remain globally competitive by ensuring reliable/predictable/rewarding investment framework and foster innovation.
How European policies can ensure a Reliable/ predictable/ rewarding investment framework

A. Assessment of the – dynamics of - global competitiveness of European industry

B. Improvement of transparency of reporting on the additional costs charged to energy consumers through gas, heat or electrical systems

C. Mitigate administrative burden related to the reporting of energy and greenhouse gas emissions by simplifying reporting and auditing procedures and by allowing hardship regimes and exemptions.

Governance of the Energy Union
How European policies can ensure a Reliable/ predictable/ rewarding investment framework

Emission reduction objectives should not be achieved by deindustrialising Europe and reducing industrial activities since that would not be a contribution in tackling global warming.

A. ETS should not limit growth of European industry.

B. As long as there is no equivalent commitment from third countries, Carbon leakage protection of European industry, through free allowances and compensation of indirect CO2 costs passed on in electricity price.
How European policies can ensure a Reliable/ predictable/ rewarding investment climate

A. EED should focus only on measures that ensure improvement of efficiency and not on measures that limit energy consumption that hinder growth.

B. The possibility to exclude energy sales in ETS-sectors from national savings obligations should be maintained.

Energy Efficiency Directive (EED)
For globally competing industries, regulatory costs from climate and energy policies cannot be passed on in product prices. The revision of the EEAG post 2020 should therefore provide for the following elements:

A. A smooth transition from the current guidelines into the new guidelines without changes jeopardizing industrial competitiveness

B. Phase out of subsidies for renewable energy
Result of some latest industrial roadmaps
80 percent GHG reduction are technically feasible and macro-economically viable.

Without global consensus on climate protection ambitions, unilateral implementation requires effective carbon leakage protection.

In industry, a lot can be done with:
- Process efficiency
- Biomass
95 percent "GHG" reduction would push the boundaries of technical feasibility and current social acceptance.

Successful implementation only seems imaginable if most other countries pursue similarly high ambitions.

**Transition needs:**
- Large investments,
- High electricity volume,
- Infrastructure (H2, CO2, Electricity)

**EXHIBIT 3 | German GHG emissions by sectors**

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Source: BCG
Unilateral efforts are only possible with enough safeguards.

A unilateral effort would require greater efforts to protect vulnerable industries—in the form of effective carbon leakage protection and long-term, reliable compensation policies for industries facing international competition.

80% can be done,
95% only in a global context.

80% climate path: Technically feasible and economically viable

95% climate path: Only realistic if other countries pursue similar ambitions.

Source: BCG
Technically possible for the Dutch chemical industry to achieve 80-95% GHG reduction by 2050

**Transition needs:**
- Large investments,
- High electricity volume,
- Infrastructure (H2, CO2, Electricity)

**Source:** Feb 2018, Ecofys/Berenschot commissioned by VNCI: “Roadmap for the Dutch Chemical Industry towards 2050”
€75bn per year is needed for additional electricity and power grids

Following is addressed:
- High electricity volume (renewable)
- Infrastructure (H2, CO2, Electricity)

But also not mentioned:
energy storage for intermittent renewables should be taken into account.

Source: Source: “Smart and clean energy for all” – Marc Van Stiphout DG Energy
Industrial transition to low carbon future needs:

- competitive EU industry
- in a supporting environment

- High level of innovation in EU industry
- Large investments in new production processes
- Reliable/predictable/rewarding investment framework
- High electricity volume (competitive, non-intermitted)
- Infrastructure and storage for electricity, energy, H2 and CO2