EU ETS that enables necessary industry transformation
EU climate ambitions level is high

- **ETS** (Emission Trading System)
- **RED** (Renewable Energy Directive)
- **EED** (Energy Efficiency Directive)

**ETS**
- Greenhouse gases reduction (compared to 1990): 40%
- ETS target and 30% non-ETS target (compared to 2005): 43%

**EED**
- Energy Efficiency improvement * (EU - binding): 30%

**RED**
- Renewables by 2030 * (EU - binding; 27% might become 30%): 27%
EU climate ambitions level is high, but potentially achievable.

These decarbonisation targets are highly ambitious, especially since they are only valid for EU, not for outside EU.

The decarbonisation of European industry is potentially achievable; but how would this decarbonisation of EU industry work?

What if we would electrify industry?
Electrification of EU Ammonia production

- **Natural gas** based \( \text{NH}_3 \) is **cheaper**
- Large **additional investment** required
- Large amount of **electricity** required

**EU average 500kta Ammonia plant**

- **Classical gas-based ammonia**
  - Energy usage: 35 GJ/tNH3
  - Additional electricity: -
  - Investment in electrolysers: -

- **Electrified ammonia**
  - Energy usage: 40 GJ/tNH3
  - Additional electricity: 750 MW
  - Investment in electrolysers: 525 M€

**Total EU - Electrified ammonia (16.7 Mta)**

- 25050 MW (220TWh*)
- (5010* wind turbines 5 MW)

*at 100% availability

Source: OCI Nitrogen, March 2017
Transformation needs healthy EU industry to innovate and produce

In current transition phase, EU is faced with this enormous **transformation challenge**. A.o. following is needed:

- **High level of innovation** in EU industry
- **Large investments** in new production processes
- **Reliable/ predictable/ rewarding investment climate**
- **High electricity** volume (non-intermitted)
Transformation needs healthy EU industry to innovate and produce

EU industry is not only requested to innovate and invest, but should also be/stay the provider of products / solutions that are used down the value chain for climate solutions.

Therefore there needs to be a EU legislative framework that:

01. Helps materializing ambitions by innovation, but also

02. Keeps EU industry competitive with producing products/solutions
EU industrial competitiveness needs a sound EU ETS

One of the main elements to ensure a healthy and competitive EU industry is the sound EU ETS reform.

To mention some of the possible threats on competitiveness of current ETS proposals...

- **01** High additional cost due to unrealistic update of the benchmarks
- **02** Aluminium production plant can face more than 25 M€/y additional cost due to CO2 costs in electricity
- **03** Heat production costs in Chemicals could increase 11x in 2030 compared to 2015
- **04** If a sector like Sinter would not be CL exposed, steel production costs would rise with 43%

Source: FutureCamp VIK study, April 2017, “Plant-related carbon costs in phase IV of the EU Emissions Trading System”
Main elements that need to be reflected in ETS reform

**01**
Ensure **sufficient** amount of free allowances

**02**
Carbon leakage measures that **meet the needs**

**03**
Nourish the **investment climate** in Europe

---

Enough free allowances need to be made available to avoid undue carbon costs for exposed EU industrial manufacturers. It is essential to compensate for the discrepancy between the costs for EU and non-EU industrial manufacturers.

(allowances share, NER from ph 3)

EU industrial competitiveness can only be maintained when undue costs are controlled

(real BM, qualitative ass., indirect comp)

New installations, investments and efficient growth in EU should not face undue carbon costs

(No LRF for new entrants, dyn all, MSR)
Main elements that need to be reflected in ETS reform

01. Ensure sufficient amount of free allowances

02. Carbon leakage measures that meet the needs

03. Nourish the investment climate in Europe

FREE ALLOWANCES SHARE TO 48%
The share of free allowances needs to be increased by 5 percent point, to prevent triggering the CSCF;

NER FROM PHASE 3 SURPLUSES
The NER (New Entrant Reserve) should be established using surpluses of phase 3 rather than curbing the available amount for phase 4;

INNOVATION FUND FROM AUCTIONING SHARE
The innovation fund should be fully financed from the auctioning share.
Main elements that need to be reflected in ETS reform

01 Ensure sufficient amount of free allowances

02 Carbon leakage measures that meet the needs

03 Nourish the investment climate in Europe

REAL BENCHMARKS
(without flat rate or haircut beyond realistic performance level) based on actual EU industry performance to avoid undue costs for best EU manufacturers;

CORRECT CARBON LEAKAGE LIST
• Lowest thresholds for qualitative assessment option
• Appropriate level of data disaggregation (NACE or PRODCOM).

INDIRECT COMPENSATION
• Ensure a legislative basis for member states that allows proper level of compensation for indirect carbon costs.
• No cap on compensation related to the auctioning revenues
Main elements that need to be reflected in ETS reform

01 Ensure sufficient amount of free allowances

02 Carbon leakage measures that meet the needs

03 Nourish the investment climate in Europe

**NO LRF FOR NEW ENTRANTS**
Applying the linear reduction factor (LRF) for new entrants must be removed, at least the definition of new entrants should be updated to limit the negative impact;

**SENSITIVE DYNAMIC ALLOCATION**
Lowest production threshold for more dynamic allocation is preferred since this brings a closer reflection of real output fluctuation and thus avoiding over and under allocation;

**MSR**
- Excessive cancellations or invalidation of allowances need to be avoided
- Absorbing and releasing allowances with high enough rate
Retain and attract sustainable industrial production in Europe

**Innovation** that is needed for the transformation happens where there is a **HEALTHY GROWTH AND INVESTMENT CLIMATE**

Only in such conditions, European industry can deliver solutions that are needed to reach the climate targets and to combat global warming.