This is Cefic

Since its creation in 1972, Cefic has grown to become one of the largest industry trade organizations in Europe and in the world.

- Representing **29,000** chemical companies in Europe,
- **30** National Chemical Federations across Europe,
- Over **600** direct Company Members from Europe,
- More than **30** Associate Company Members from around the world,
- **40** Partner Companies & Associations,
- **23** European Affiliated Associations,
- Operates **90** Sector Groups focusing on 120+ product families and over **88** Strategy Implementation and Issue Teams dealing with the industry’s horizontal issues (REACH, International Trade, Energy & Climate Change, Research & Innovation, …)
- About **5000** industry experts from companies and federations participate in the Cefic groups,
- Close cooperation with the other regions in the world through ICCA.
THE CHEMICAL INDUSTRY

PUTTING OUR ENERGY NEEDS IN TO CONTEXT
The European Chemical Industry

- 29,000 companies in Europe, 1.2 million direct jobs
- 17% of the world’s chemicals
- €558 billion in sales (2012), 2nd largest after China
- 3rd biggest trade surplus of all industry sectors in the EU: €48.7Bn in 2013
- e.g. Solvay with an annual turnover of around €10bn, spends more than €1bn per year on energy

The European chemical industry faces a competitive disadvantage in both energy and feedstock costs compared to other regions of the world.
EU chemicals sales nearly double in 20 years, while its world market share halves.

Growth in post-recession Europe remains low, mainly due to mature markets and an ageing population.
World chemicals output doubles as emerging markets sales surge

Source: Cefic Chemdata International

EU leadership need to create competitive framework conditions that enhance the global position of European chemicals
Production stagnant for past two years

2014 showed a stagnant production & sales, trade agreements (e.g. TTIP) must improve industry access to energy and feedstock at globally competitive prices
• As an energy intensive industry we need delivery of uninterrupted, competitively priced, stable and secure energy

• This would enable energy intensive industry to be engines for European employment, growth, and competitiveness
How the EU energy landscape looks

• EU baseload energy supply from fossil fuels and nuclear

• Greater penetration of renewables on the grid

• EU2020 targets

• EU2030 targets (40% GHG, 27% RES, 27% Energy Efficiency)

• Energy Union
What energy mix for Europe?

- The EU should establish a technology neutral market-driven level playing field

- More specifically, any subsidies should only apply to non-mature technologies and for a limited time

- Energy efficiency is an important competitiveness factor for industry

- For CCS, increase business and investor clarity – EC Investment Plan (EC Energy Union, February 2015)
• Fossil fuels share in the global energy mix will be 55% in 2040 (World Energy Outlook 2014, International Energy Agency)

• Speed and cost of realising the wider decarbonisation of the EU energy mix has to be framed in reality (economic and global climate change burden)
CCS in the Chemical Industry

• CCS in the EU chemical industry is estimated to account for a possible 21 percent of the total abatement potential, or around 420 MtCO2e

• Two different CCS technologies are applicable to the chemicals sector
  • the capture of a pure CO2 stream
  • capture of CO2

• CCS is a technology that has yet to be tested for use in the chemical industry, and adequate liability and infrastructure programs are not in place yet
CCU: Carbon capture and utilisation

- Chemical industry can use CO2 as a raw material

- For almost all applications in the chemical industry, the CO2 needs to be available in pure or highly concentrated form

- CCU could be developed in symbiosis with CCS

- Technology advances for our sector being developed:
  - CCU as a feedstock (organic liquids, gas)
  - Mineral carbonisation (for use in building materials etc)
  - Artificial photosynthesis (breakthroughs needed)
Conclusions

• Balanced energy mix: we need everything!
• Reduction in GHG emissions – energy efficiency
• CO2 has a value to industry (CCU)

Hurdles to overcome, as we see it:
• Regulatory – ready to try again?
• Market – will follow the money (e.g. Incentivise not subsidise?)
• Public perception
• Technology competition – low-cost development – storage or flexibility?

But!
• We will continue to be dependent (+/-55%) on fossil fuels in the global energy mix in 2040