**EEE4 External Event Report**

**Title of the event:** Industrial efficiency event: Why Decarbonisation and not energy efficiency?

**Date & location:** 22-23 November 2022, Antwerp

**Organiser(s):** Borg & Co/Eceee

**Summary**

The conference featured two plenaries, each with a commission representative from DG-GROW and CINEA respectively, as well as speakers from industry and academia. The Energy Efficiency Watch project was represented with two presentations. Several conference presentations highlighted the need for supporting narratives, although they did not always use these words. See for instance, presentations by the North Rhine Westphalia energy agency (in4climate.nrw) as well as the presentation. The event had 90 participants.

Apart from the pre-conference workshop (reported as a separate event) we also integrated a workshop on financing with four representatives from DG-ENER, EiB and CINEA (2 people) led by Rod Janssen who is very active in the EEFIG industry working group.

Eceee's Zero Carbon Industry featured three parallel thematic panels to outline the drastic transformation needed to achieve a zero-carbon industrial structure. In each of three parallel panels four sessions with a total of 12 presentations were held. Thus, in total 36 presentations were held in the panel sessions, in addition to plenaries and workshops.

1. Decarbonising processes
2. Energy management & innovation
3. Policy drivers for change

Decarbonising processes. Decarbonising our industrial sector to contribute to meeting our long-term energy and climate goals is a major challenge. We need to unlock current production practices and transform these to new factories that are less energy and resource intensive; allow to switch to decarbonised energy vectors or facilitate the capture of CO₂ emissions. The topic is challenging as industrial plants are capital-intensive and have long lifetimes.
The panel deals with technologies and strategies and implications for policy, industry and research. One of the key questions is to what extent the industry can be electrified and how green molecules can replace the current fossil-based ones.

**Energy management & innovation.** It has long been pointed out in various sectors that there is an untapped potential for improving energy efficiency through implementing cost-effective measures. Parts of this potential can be understood by recognising that organisations may lack resources for working effectively with energy efficiency. Improving energy efficiency in an organisation is an activity that, like most activities, needs to be well organised and managed. EnMS is evolving and now ISO has created a new standard (ISO 50005) to provide practical guidance to enable organisations to initiate and improve energy management systems through phased implementation. At the same time, there is a need for innovation because business-as-usual is not going to solve our concerns. Innovation can take place in many forms but this panel will focus on supply chain management and the role of digitalisation.

**Policy drivers for change:** While there is much industry can do, there is a need for the right enabling frameworks. This panel discusses industrial policies and programmes, including revised directives and new policy initiatives. It also compares government-led and civil society-led voluntary programmes and analyses financing schemes. This panel aims to assess whether these frameworks manage to connect the economics of business with the reality of climate change. In particular, it examines whether the frameworks make the paradigm shift from fostering incremental improvements to enabling drastic transformation.

**Objective & main programme point**

Europe’s industrial context has changed considerably over the last couple of years. The EU has increased its climate ambition to achieve full climate neutrality by 2050, the COVID19 pandemic has perturbed consumer demand and supply chains and, Russia has caused an unprecedented energy crisis.

Industry is a very important element in European economies, generating wealth and employment and plays a key role in achieving Europe’s long-term climate and energy objectives. However, while the improvement of the companies’ processes and operations is a permanent endeavour, there is a common understanding that more drastic transformations are needed to achieve deep decarbonisation. At the same time, industry must remain competitive – within Europe and globally – and become leaders of developing zero-carbon technologies and techniques.

The EU has stepped up its ambitions with the European Green Deal, the ‘Fit for 55’ package and REPowerEU to urgently address the current energy cost and energy security concerns. Achieving energy efficiency improvements, reducing GHG emissions and decarbonising industry becomes a higher priority.

Energy efficiency is key in this change, but a deep transformation goes beyond improved efficiency. Efficiency will have to be paired with new decarbonised processes, electrification, and investments in renewables to power the change in a sustainable way.

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The necessary changes by industry will need to be achieved rapidly to meet decarbonisation targets and the requirement to act both quickly and fundamentally will be highly challenging for each industrial company. The Zero Carbon Industry event will provide insights to the way forward.

Decarbonisation is a major challenge and requires profound transformations of our industrial structure. This also requires significant investments. There are a few presentations that highlight this specifically:

The presentation by prof. Lars Nilsson in the opening plenary highlights the complexity in the needed presentation, globally. The Port of Antwerp in the opening plenary also look at how the whole society needs to be involved. The final presentation on H2Green Steel and the industrial transformation in northern Sweden, ends on a positive note: it illustrates how the industrial structural transformation is not only a challenge, but also an opportunity for a whole region to revitalise itself, with people moving in, new highly paid industrial jobs are created and the cities in the region get new life. The presentation from Ademe in the final plenary illustrates that we have many ways to the future, and their 2050 scenarios for France include everything from high-tech, business-as-usual scenarios relying on technology, to “sufficiency” options for a future decarbonisation where societal shifts include recycling, and smaller dwellings.
Programme Day 1 – 22 November

09.30-10.00 Registration for workshop participants, Morning Coffee
10.00-12.00 Pre-Conference workshop: Saving energy in a hurry

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