

The impacts of climate change can disrupt the natural, economic, and social systems we depend on.

## "Steel industry can blaze the trail to carbon-neutral EU"

Climate change is threatening our way of life and the future of our planet. Global warming, changing weather patterns, melting glaciers, and rising sea levels are affecting people and their property in both developed and developing countries alike. We can definitely address climate change, but the clock is ticking, pressure mounting.

#### By Tanya Rudra

The world took a noteworthy first step by adopting the Paris Agreement, the first-ever universal, legally binding global climate change agreement, adopted at the Paris climate conference (COP21) in December 2015, where about 190 countries committed to climate action.

Crucial in orchestrating the agreement that came into force on 4th November 2016, the European Union has been at the forefront of international efforts to fight climate change. In December 2020, the EU enhanced its target to reduce emissions by at least 55% by 2030 from 1990 levels and

contribute towards the effort of becoming a climate-neutral continent by 2050.

Needless to say, the hardto-abate sectors have a central role to play in meeting the EU's climate ambitions and commitments but at the same time, it is

important to preserve the competitiveness and viability of these industries. It is a well-established fact that the steel industry is one of the biggest emitters and there is a need to develop and commercialise new low- $\mathrm{CO}_2$  technologies within the next 5-10 years in order to be in line with the EU's climate targets.

To support the EU leadership in transforming the steel industry into a carbon-neutral one, the Clean Steel Partnership (CSP) was launched in June 2021 in the frame of Horizon Europe in synergy with the Research Fund for Coal and Steel (RFCS). The Memorandum of Understanding was signed by representatives of the European Commission (EC) and the European Steel Technology Platform (ESTEP).

At the recent CSP webinar organised by ESTEP, Ms. Rosalinde van der Vlies, Director of the Clean Planet Directorate in the Directorate-General for Research and Innovation in the European Commission, shared views from the public side on the CSP that has been developed in the context of goals and policies like the European Green Deal, the Clean Planet for All strategy and the Paris Agreement.

### Competitive, inclusive, and sustainable

In November 2019, the Parliament declared a climate

emergency asking the EC to adapt all its proposals in line with a 1.5-degree Celsius target for limiting global warming. In response, the Commission unveiled the European Green Deal, a roadmap for the EU becoming a climate-neutral continent by 2050.

"The Green Deal is not only the foundation of the EU's climate policy but also of the continent's competitiveness and inclusiveness. With the deal, we have set ourselves the ambitious objective of becoming the first climateneutral continent by the year 2050 and obviously, the hard-to-abate sectors like steel will play a very important role to showcase and lead the way. Also, the industrial strategy is in alignment with greener digital transitions to enable the EU to become even more competitive globally and support industries in reducing their carbon footprints," Ms. van der Vlies said.

### Every challenge is an opportunity

In the light of the global energy market disruption caused by the conflict between Russia and Ukraine, the EC presented the REPowerEU Plan in May to phase out the EU's dependence on Russian fossil fuels and tackle the climate crisis. The strategy interlinks energy



Ms. Rosalinde van der Vlies, Director of the Clean Planet Directorate in the Directorate-General for Research and Innovation in the European Commission.

security with the global clean energy transition.

"Exorbitant prices and concerns about energy security have caused a ripple effect across the economy and the REPowerEU is a joint action plan to make sure that the EU will have affordable, secure and sustainable energy,"

Ms. van der Vlies said.

"With respect to the steel industry, the EC expects that around 30% of the primary production will be decarbonised with renewable hydrogen by 2030. This is a massive challenge but also a great opportunity to accelerate our pathway towards climateneutrality while simultaneously decreasing our energy dependency," she added.

#### Circular EU economy

Steel is the most recycled material in the world and its



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residues and by-products can become valuable resources, thus contributing to a circular EU economy. Circularity is an essential ingredient of a wider transformation of industry towards climate-neutrality and long-term competitiveness.

"We have our strategic political objectives that are very clear, and we even have the necessary investments in place. However, we need to continue to benefit from the investment opportunities that exist for the steel industry at the national level and continue to pull private investments so that we

can all work together towards this common objective", Ms. van der Vlies said.

The European Commission adopted the circular economy action plan (CEAP) in March 2020 as one of the main building blocks of the European Green Deal. The EU's transition to a circular economy is expected to reduce pressure on natural resources while creating sustainable growth and jobs.

The CEAP announced initiatives along the entire life cycle of products. It targets how

The major political priorities of the EU are a fertile ground for the technology and innovation in steelmaking.

products are designed,
promotes circular economy
processes, encourages
sustainable consumption,
and aims to ensure that
waste is prevented, and the
resources used are kept in
the EU economy for as long as
possible.

"For the EC it is very important that the steel industry lowers its emissions, supports digitalisation of the industrial sectors, and pays particular attention to circularity because the material issue and the supply chain issue will continue to be the areas of concern in the future as well. Ultimately, we want to make sure that the EU can remain competitive internationally", she added.

#### The three Cs to green steel

The European Union was formally established when the Maastricht Treaty came into force on 1st November 1993 and since then, its development has been based on the principles of 3Cs - complementarity, coherence, and coordination.

Similarly, the Director of the Clean Planet explained that the way for the steel industry to become clean and sustainable can be outlined by the Commission's 3Cs that are the common guiding principles to help focus the activities in the

weeks, months, and years to come.

According to Ms. van der Vlies, the collaboration between public and private sectors will be critical to accelerate the R&D and link it to the deployment phase. She believes that is a great opportunity to tap into the synergies with other EU programs that will foster deployment, in particular the Innovation Fund (IF).

The IF will provide around EUR 10 billion of support between 2020-2030 for the commercial demonstration of innovative low-carbon technologies, aiming to bring to the market industrial solutions to decarbonise the

### We are investing EUR 1.7 billion in the Research & Innovation for clean steel between the period of 2021 and 2027.

EU and support its transition to climate neutrality.

Elucidating commitment as the second guiding principle, she said that CSP on the private side, along with the Commission on the public side, have already invested a substantial amount to display their commitment to reach the very ambitious climate objectives.

Stating that collaboration and commitment serve the purpose of caring for the planet and the

people, she pointed out that in order to maintain the industrial leadership of the EU steel sector, to contribute to the climate goals and to have a positive impact on the planet and the people, caring is of utmost importance.

"We are trying to protect the environment and making this green transition because we care for our future generations and I am convinced that with the CSP and our 3Cs we have a recipe for success", Ms. van der Vlies concluded.

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