Question for written answer E-004442/2021
to the Commission
Rule 138
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Subject: Developing zero-carbon steel

Steel has always been produced using coke, which is derived from coal, an energy source that is inherently highly polluting. Producing 1.5 billion tonnes per year, the steel industry accounts for 5 to 7% of global greenhouse gas emissions.

Yet as early as 2013, MIT researchers were publishing their research into the production of zero-carbon steel, using electrolysis to release only oxygen instead of carbon dioxide, in the journal *Nature*[1]. Furthermore, this method produces a higher-quality steel and would reduce production costs by 35%, particularly by eliminating coke.

However, steel will only be zero carbon if electricity is generated using non-CO_2-emitting energy sources such as nuclear or hydroelectric, as in the case of France.

This innovation will help EU Member States to significantly reduce their carbon emissions provided that the steel industries are encouraged to experiment and then implement the new method.

1. Is the Commission aware of this innovation?

2. Is it also funding research into this method?

3. Is it working with the steel industry to develop this method in Europe?

[1] https://www.nature.com/articles/nature12134