



*European Economic and Social Committee*

**TEN/619**  
**Accelerating clean energy innovation**

## **OPINION**

European Economic and Social Committee

**Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank – Accelerating Clean Energy Innovation**  
[COM(2016) 763 final]

Rapporteur: **Christophe QUAREZ**

Consultation	European Commission, 17/02/2017
Legal basis	Article 304 of the Treaty on the Functioning of the European Union
Section responsible	Transport, Energy, Infrastructure and the Information Society
Adopted in section	16/05/2017
Adopted at plenary	01/06/2017
Plenary session No	526
Outcome of vote (for/against/abstentions)	173/2/7

## 1. **Conclusions and recommendations**

- 1.1 The European Economic and Social Committee welcomes the fact that the Commission reaffirms its ambition to speed up the transition towards a competitive low-carbon economy with a comprehensive strategy on incentives for private investments, tailored financial instruments and financing towards research and innovation.
- 1.2 In its communication<sup>1</sup> the Commission presents a wide range of financial instruments and funding options to support low-carbon innovation. The EESC backs the Commission's intention to stimulate additional investment throughout the entire innovation value chain.
- 1.3 The EESC is nevertheless concerned about the complexity and variety of such aid. It therefore welcomes the Commission's intention to set up a one-stop advisory service to guide project promoters and investors, but asks that an effort be made to simplify the financing options. These subsidies are, in the Committee's view, too numerous and difficult to access for very small enterprises (VSEs) and local authorities.
- 1.4 The EESC suggests that the Commission encourage the Member States to pool their resources for carrying out large-scale projects on low-carbon innovation in order to improve the cooperation between key European research stakeholders. This will speed up the coordination of these stakeholders, making them more competitive.
- 1.5 The EESC notes that EU climate policies must use investment and innovation to stimulate the transformation of these sectors and certainly not trigger their decline. On no account can the relocation of production substitute a policy to combat climate change.
- 1.6 The best conduit for low-carbon innovation, in the EESC's view, is a regulatory framework that makes carbon expensive (it currently stands at around EUR 7/tonne) in order to send a very clear signal to investors that carbon technologies will lose their present position in Europe in the medium term.
- 1.7 The EESC acknowledges that the European Union is one of the global leaders and largest public funders of clean energy research and innovation with over EUR 10 billion in funding in this area. Research and innovation are key to supporting Europe's global competitiveness and leadership in advanced energy technologies and energy efficiency solutions.
- 1.8 The EESC welcomes the emphasis given to both ends of the innovation chain, where Horizon 2020 plays a key role with its bottom-up approach to fund ground-breaking fundamental research through the European Research Council as well as with the anticipated creation of a European Innovation Council whose aim is to help industries – in particular small and medium-sized enterprises (SMEs) – to create new markets.

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<sup>1</sup> COM(2016) 763 final.

1.9 The EESC would like to understand better the plans of the Commission to explore new approaches for mission-driven research and innovation. In particular the processes for identifying and selecting such projects have to be described in more detail.

1.10 The EESC calls for the participation of civil society in the new energy-research platform the Commission wants to put in place to bring together energy specialists from the social sciences and humanities and technical fields.

## 2. **Gist of the Commission communication**

2.1 The Commission reaffirms its ambition to speed up the transition towards a competitive low-carbon economy.

2.2 To this end, it is putting forward a legislative package centred on three major objectives:

- making energy efficiency a priority;
- making Europe a global leader in the renewable energy sector;
- fair treatment for consumers.

2.3 Within these parameters, the Commission sets out a comprehensive strategy detailing the main policy levers the EU can use to stimulate private investment in clean energy innovation:

- creating strong, joined-up incentives for private investment in clean energy research and development;
- deploying tailored financial instruments to lessen the risk entailed in private investment in clean energy technologies or untested but promising business models, especially where these involve scientific, technological or market-related uncertainties;
- steering European Union (EU) financing towards research and innovation (under Horizon 2020, for example);
- moving the regulatory framework towards Member State energy subsidies going to carbon-free forms of energy rather than fossil fuels.

2.4 The Commission's communication sets out four priority technology areas:

- decarbonisation of the EU building stock by 2050 – buildings account for 40% of energy demand and almost 75% of EU building stock needs renovation to improve energy efficiency;
- strengthening EU leadership in the renewable energy sector and maintaining its dominant position in the world in such technologies;
- developing affordable means of energy storage, in particular helping to relaunch the production of battery cells in Europe;
- promoting electromobility through the development of cheaper, longer-life batteries and faster charging methods.

2.5 The Commission also proposes to facilitate coordination of clean energy innovation endeavours with cities, regions and Member States.

### 3. **General comments**

3.1 On 30 November 2016, the European Commission presented a very concentrated package of measures entitled "Clean energy for all Europeans", which consists of a set of proposals designed to reconfigure the energy market – renewables in particular – in order to comply with the commitments made by signing up to the Paris climate agreement.

3.2 This agreement included a pledge by the EU to cut its greenhouse gas emissions by 40% by 2030. In October 2014, however, the EU also established its own framework on climate and energy for 2030, with two further objectives: 20% of renewables in electricity production in 2020 and at least 27% in 2030, and from 20% to at least 27% for energy savings in the same time frame.

3.3 The EESC has in numerous opinions endorsed the need to accelerate the transition towards a competitive low-carbon European economy, while respecting the positions and proposals expressed by civil society.

3.4 In calling for a "fair transition", the EESC has always refused to pit employment against environmental protection. These two goals must be pursued with equal resolve.

3.5 As far as the EESC is concerned, EU climate policies must use investment and innovation to stimulate the transformation of these sectors and certainly not trigger their decline. On no account can the relocation of production substitute a policy to combat climate change.

3.6 So far, the EU's energy innovation policy has primarily stressed technological development, neglecting what is really important for the public, which is meeting their energy needs – such as heating, mobility and lighting.

3.7 In its communication the Commission now accepts the position of consumers at the centre of the energy system as producers of decentralised energy networks or by virtue of their calls for competitive low-carbon solutions.

3.8 The EESC welcomes this development, since an innovation strategy for citizens starts with an analysis of their needs and their energy behaviour.

3.9 In its communication the Commission presents a wide range of financial instruments and funding to support low-carbon innovation. The EESC backs the Commission's intention to stimulate additional investment throughout the entire innovation value chain, but is concerned about the complexity and variety of such aid, which make it difficult for very small enterprises or local and regional authorities, in particular, to access.

- 3.10 This is why the Committee welcomes the Commission's intention to set up a one-stop advisory service to guide project promoters and investors, but asks that an effort be made to simplify the financing options.
- 3.11 It is, in fact, difficult to navigate among the following: the SET Plan, the Innovation Fund of the ETS, the 2020 European Fund for Energy, Climate Change and Infrastructure, InnoEnergy, InnovFin, Horizon 2020, the European Fund for Strategic Investments and the European Investment Bank (EIB)<sup>2</sup>.
- 3.12 In its opinion on *Energy Technologies and Innovation*<sup>3</sup>, the EESC noted that major innovations had not come from the big industry sectors and companies that dominated the market, but from "specialists" from, for example, some small and medium-sized enterprises (SMEs).

#### 4. **Specific comments**

- 4.1 The EESC welcomes the Commission's intention to reduce the oil and coal subsidies of some Member States, but reiterates the need to anticipate industrial change and propose alternatives in terms of training and employment to the workers, especially in mining.
- 4.2 Public backing for the energy transition, in terms of jobs, is essential for the political support of the Member States.
- 4.3 The best conduit for low-carbon innovation, in the EESC's view, is a regulatory framework that makes carbon expensive (it currently stands at around EUR 7/tonne) and thus sends a very clear signal to investors that carbon technologies will lose their present position in Europe in the medium term.
- 4.4 There is little mention of carbon capture and storage (CCS) technology, even though the Commission considers it indispensable to achieving the 2050 targets.
- 4.5 The Committee is surprised, in this connection, that the Commission does not explain why the tools put in place since 2008 to encourage the deployment of carbon capture and storage technology in Europe have not worked.
- 4.6 The EESC supports the Commission's intention of decarbonising the EU's building stock by 2050. This alone is responsible for over 40% of the Union's final energy demand.
- 4.7 The challenge of renovation to make the building stock more energy-efficient is a considerable one, but the Committee fails to see the tools and financial support to achieve this in the Commission's communication.

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<sup>2</sup> [OJ C 268, 14.8.2015, p. 27.](#)

<sup>3</sup> [OJ C 67, 6.3.2014, p. 132–136.](#)

- 4.8 The technical methods (insulation, renewable energy for heating and hot water) exist for new buildings, often as a result of specific energy-efficiency regulations in Member States, but subsidies for such renovation of old buildings are known to be inadequate, even though it is often the most disadvantaged families that live in energy-inefficient housing.
- 4.9 When it comes to another carbon intensive sector, transport, the EESC supports the Commission's objectives, but wonders about some aspects:
- It is indeed essential to further electromobility by producing battery cells in Europe and making storage part of electricity systems, but the EESC wonders about the communication's lack of regulatory or financial arrangements for developing electric charging stations on the Union's roads and motorways, despite the fact that these are needed to ensure the promotion of electric vehicles.
  - In order to complement the measures on technological innovation to decarbonise the transport sector, the EESC calls on the Commission to investigate road haulage, promoting intermodal systems by developing road-rail transport and freight on inland waterways. The modal shift from private cars to public transport should also be encouraged.
- 4.10 In terms of financing innovation, the EESC sees a key role here for crowdfunding. This is a sector that is really taking off (and soon to be more important than venture capital) and enables people to get directly involved in the innovation process for clean energies.
- 4.11 The EESC calls on the Commission to promote crowdfunding and to channel such funds to the four technology areas that it considers priorities (renewable energy, electromobility, storage methods, positive-energy housing).

Brussels, 1 June 2017.

Georges Dassis

The president of the European Economic and Social Committee

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