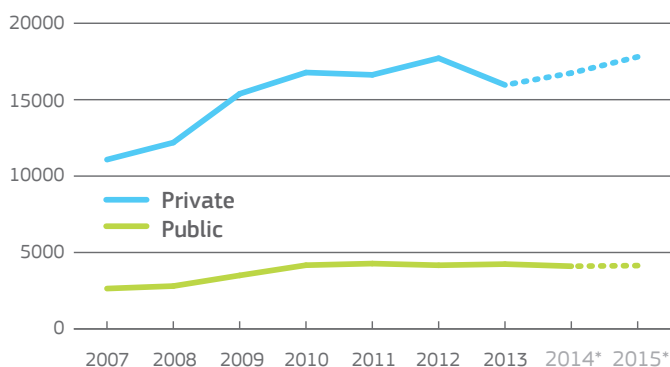


1.9 Investing in Clean Industrial Technologies

The **Paris Agreement** creates **business opportunities** to drive research and **innovation** in renewable energy, energy efficiency and other low carbon technologies. For the EU to maintain and exploit its **first mover advantage in clean energy and climate science and technology**, it will need to further **support start-ups and investors** to take innovations to the market. The shift to a low carbon economy needs to be properly managed, including anticipation and mitigation of the societal impact of the transition. This will require changes in business and investment behaviour to stimulate further innovation. Ongoing bilateral and multilateral negotiations on liberalising trade in green goods and services should also be accelerated to create business opportunities for innovative European companies around the globe.

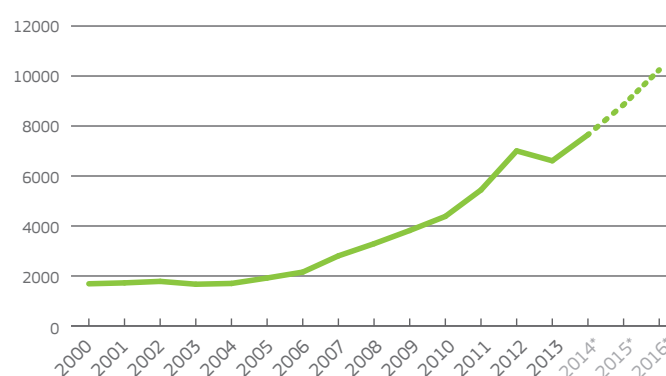
Public and Private R&I Investments into Energy Union priorities keep increasing in the EU



Source: European Commission

*estimated values

... This is reflected in growing trend in low carbon key technology innovation by the EU (international patents)



Source: European Commission

*estimated values

II ➔ What will the European Commission do next?

The European Commission is boosting new investment in clean energy and climate research and innovation by doing the following:

- 1 Increasing targeted **public investment** in clean energy and climate science and innovation – worth €3.4 billion in 2018-2020 under the EU's flagship Horizon 2020 research programme;
- 2 Deploying **targeted financial instruments to lower the risk of private investments**; Targeted support for top-class innovators comes through the first phase of the European Innovation Council, which will accelerate the development and scale-up of breakthrough innovations through a bottom-up approach. This project focuses €2.7 billion of funding and opportunities on innovators, start-ups and companies with ideas and innovations which are radically different from existing products, services or business models, are highly risky and have the potential to scale up internationally. The most innovative start-ups in the clean technology sector will create the future European global companies in this area. The **European Commission** will also provide investments of up to **€400 million** in an independently managed **Venture Capital Fund-of-Funds**. The EU investment will represent up to 25% of a projected total fund of **€1.6 billion**.
- 3 Designing a **stable and ambitious regulatory environment** that promotes innovation: The EU Emissions Trading System will include two new **Innovation and Modernisation** funds that have the potential to generate up to **€18 billion of revenue during the next decade**. The revenue is intended for European industry to invest in new technologies and for the Member States to modernise their power sector and energy systems.

The Innovation Fund will help European industry to make investments in breakthrough technologies. Potential projects include steel production without the use of coal, production of cement that captures greenhouse gas emissions, aluminium production with up to 100% greenhouse gas emission reductions, new tidal energy, wave energy, floating wind and energy storage or efficiency concepts.

The Modernisation Fund will facilitate investments in the power sector and wider energy systems and boosting energy efficiency in 10 lower-income Member States. It will give priority to the generation and use of electricity from renewables, energy efficiency, upgrading power grids and interconnectors, and energy storage. The Fund will also support the European Commission's work on the transition of carbon-dependent regions to the low-carbon economy, including projects on re-deployment, re-skilling and education.