

## Creating a new Europe with decarbonisation and innovation

by Lilyana Pavlova



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ussia's invasion of Ukraine has forced the European Union to accelerate decarbonisation. Since the Kremlin has increasingly used energy as a tool for political influence, there is a geopolitical rationale of reducing our dependence on fossil-fuel imports from Russia which overlaps with the imperative to tackle climate change. The Intergovernmental Panel on Climate Change's latest Synthesis Report underscores the urgency of that task. Total greenhouse-gas emissions must reach their peak by 2025 or we risk crossing tipping points of "abrupt and irreversible changes" whereby our planet's overheating will kill, displace, sicken, and starve billions of people, and eliminate entire species. The economy-wide shift to clean energy will create a new Europe, but the transition must be managed carefully to account for the inevitable social and economic consequences; it must be a "just transition."

Since we cannot achieve these aims without new technologies, innovation must also be a central pillar of our strategy.

## Cohesion

The accelerated pace of decarbonisation will pose some of the biggest challenges for Europe's poorer and more vulnerable 'cohesion' regions. Not only have many, particularly in the East, been among the worst hit by the cost-of-living crisis sparked by high energy costs and the

war in Ukraine, but many are also historically highly dependent on coal. The investments we make to deal with this immediate crisis must be geared to a long-term transition to a carbon-free, energy independent future.

The surge in energy and food prices ignited by Russia's invasion could push as many as 11 million Europeans below the poverty line, according to our economists, in their annual Investment Report released this February. While the rising cost of living is driving living standards down for everyone in Europe, some groups are more exposed than others. Think of poorer, younger and less qualified households whose finances took a hit during the pandemic and tend to spend a higher portion of their income on food and energy. Countries with higher inflation and higher inequality, such as those in Central and Eastern Europe, particularly the Baltics, are likely to see the biggest increases in poverty.

The impact on different regions of Europe will depend on the structural make-up, resilience and adaptability of their economies, as well as their proximity to the war in Ukraine. That conflict places the greatest strain on those countries that are further east, have higher unemployment, and are most reliant on energy-intensive industries.

In the face of the challenges of a changing world, Europe's greatest strength is its unity. But unity cannot be taken for granted. To preserve and strengthen it, the European Union must continue to invest in its cohesion.

The European Union's cohesion policy— the policy of investing in its economically weaker regions to raise living standards—has always been the most visible expression of European solidarity and interdependence. It has served as a key driver for economic convergence and growth throughout Central and Eastern Europe, as well as being a powerful support in times of crisis. Cohesion policy was among the first tools deployed by the European Union to help contain the economic fallout of the COVID-19 pandemic. The Cohesion Action for Refugees in Europe programme has helped to counter some of the short-term fallout from the war in Ukraine.

Over the life of its current long-term budget, which runs from 2021 to 2027, the European Union plans to contribute €244 billion to support social and regional cohesion through the Cohesion Fund. In addition, out of the investments to be funded by the Recovery and Resilience Facility between 2021 and 2026, €193 billion has been earmarked for social and territorial cohesion. The countries of Central and Eastern Europe, which are most affected by the cost-of-living crisis, will be the biggest beneficiaries relative to GDP.

In 2021, the European Investment Bank adopted a bigger, bolder and more focused approach to cohesion. According to the Bank's Cohesion Orientation 2021-2027, by 2025, the EIB will aim to dedicate 45% of its annual EU lending to cohesion regions and 23% of all EIB financing in the EU to less developed regions. This will see the EU bank increase its support for Europe's weaker regions, while at the same time ensuring that fully half of all our lending goes towards climate action and environmental sustainability.

Investment in climate action and environmental sustainability is especially important for less-developed cohesion regions and for those struggling with rising energy prices, whether to heat their homes, drive their cars, or power their businesses.

To address the challenges of cohesion regions and the energy crisis at the same time, we need to prioritise investments that serve both objectives. Investments in clean energy, clean transport and energy efficiency, for example, can boost regional economies, while reducing carbon emissions and strengthening Europe's energy independence. I believe that investing in Europe's cohesion by backing the green and digital transitions in its most affected regions will support less developed regions and all of Europe with a strategy to emerge stronger, greener and better prepared for the future.=

## Innovation

Promoting innovation, in cohesion regions and in general, will be essential to decarbonising the economy and ensuring a just transition.

An estimated 50% of the technology we need to fight global warming has not been developed or is in its infancy. We must invest heavily to bring new technologies out of the testing stage. Last year, the EIB allocated €18 billion to innovation, including digital skills training. Low investment in innovation and digital skills is holding back the European economy. If we bolster investment in innovation, we will be better prepared for the future and more self-reliant in the event of a crisis.

Digitalisation keeps wind turbines running at peak capacity and means fewer repairs and less energy loss, because technicians monitor maintenance remotely via the internet and use drones to investigate potential problems. Digitally advanced agriculture connects machinery to the internet and gets information on soil conditions, weather and seed availability, making food production more efficient and reducing waste. Because they are faster and use less electricity, 5G networks are up to 90% more energy efficient than the older networks. Traffic cameras and data analyses of traffic flows reduce congestion in major cities and result in fewer accidents, saving fuel and lives.

All this innovation is why we must offer more help to businesses and researchers to discover technologies that we haven't thought of yet. This is how we will develop revolutionary products to stop global warming and improve the quality of life.

Between 2018 and 2022, the EIB Group provided around €83 billion for digitalisation, innovation, jobs and training. We are ready to increase this funding, as digitalisation and innovation will aid the green transformation of the European economy.

Europe urgently needs policies to support innovation, including more financial support for start-ups and successful innovators looking to expand. Over the last decade, Europe has built a fast-growing start-up scene that has launched global players, including more than 70 unicorns, and created more than two million jobs. Between 2010 and 2020, investment in European start-ups rose sixfold to about €40 billion.

To turn the tide, however, we must do much better at nurturing young companies that could grow into the industry leaders of tomorrow. Too many promising European start-ups struggle to raise the capital they need to expand and mature. They are forced either to move abroad to the deep capital markets of the US, or to sell themselves to larger rivals with deeper pockets. In 2020, nearly a quarter of all European venture capital deals had at least one US or Asian investor. European investors accounted for a small minority of the capital raised in most deals, particularly the biggest ones.

One of the reasons for this is simply that there are far fewer venture capital funds in Europe than in the US and even fewer of a size capable of scaling up the most successful companies. The number of venture capital funds with €200 million to €500 million to invest is three times greater in the US than in Europe. The number of funds in the €500 million to over €1 billion range is six to eight times greater.

The launch of the European Tech Champions Initiative, a fund of funds managed by the European Investment Fund with €3.75 billion of commitments from Germany, France, Italy, Spain, Belgium and the European Investment Bank, aims to address this issue. It will help European late-stage venture capital funds bulk up, so that they can channel much-needed scale-up capital to promising European innovators.

## **Innovation in cohesion regions**

The potential disruption to jobs and industries from the digital transition and from automation is sometimes overshadowed by the dramatic changes called for by decarbonisation. But structural gaps in digital and innovation activity and skills in cohesion regions are also significant. The EIB investment survey shows firms in Central Eastern and South Eastern Europe invested less in intangible assets (research and development, software, training and businesses processes) than the EU average (24% vs 37%). New policies are needed to spur innovation in these regions, to raise their income levels and help adjust to the digital transition.

As part of our new approach to cohesion, we plan to tackle this problem by helping mid-cap companies in less-developed regions adopt proven technologies, as well as conduct research and development. Mid-cap companies are particularly important, because research shows that they have strong positive effects in their communities. We will also help improve mid-cap companies' access to finance by lending to them directly, as well as through our intermediated programmes.

Ultimately, the purpose is not just to help the cohesion regions. It is to bring the people of Europe closer together and strengthen the unity of the European Union.