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Putting people first: Europe's 6G push for connectivity that serves society

As Europe prepares for the leap to 6G, researchers, policymakers and citizens are working together to make sure that the next digital revolution is not just faster, but also ethical, sustainable and inclusive.

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What if tomorrow's super-fast, super-connected digital world could be shaped by public values – right from the start? Dr Monique Calisti, an Italian engineer, entrepreneur and researcher, is a leading voice in the drive to keep people at the centre of digital transformation.

"I have three teenage daughters and I feel a big responsibility to give them a digital world that is sustainable and socially inclusive," she said.

Calisti is the founder and CEO of Martel Innovate, a digital innovation and consulting company based in Switzerland and with offices in the Netherlands. She also founded Digital for Planet, a non-profit association that campaigns for sustainable, ethical and inclusive digital technologies.

On the cusp of next-generation connectivity

Currently, Calisti is leading a two-year EU-funded initiative called 6G4Society to ensure that when the next generation of mobile networks – 6G – arrives, it is not just faster or more capable, but also inclusive, sustainable, ethical and trusted.

Today's 5G wireless networks are already paving the way. But around 2030, 6G is expected to go much further. It will offer not only much higher speeds, but also lower latency – the delay between sending a signal and getting a response.

In practice, this means near-instant reactions, which are vital for things like remote surgery, self-driving cars or improved environmental monitoring.

For everyday users, 6G will bring clear benefits. Connectivity will be widespread, lightning-fast and ultra-reliable, blurring the lines between the physical and digital worlds.

“The vision is to have a super-reliable network where there could be, for instance, hologram conversations, with a 3D image of the person you are talking to present in the room with you,” she said. This would help children in hospitals, or refugees, for example, talk to their loved ones.

Unlocking future benefits

Telemedicine, remote surgery and vehicles that communicate directly with infrastructure could all become standard in the next decade, unlocking new possibilities for society.

That means a leading heart surgeon in Paris, for example, will be able to use fast and reliable 6G connectivity to operate a robotic arm in a hospital in Romania and perform life-saving surgery on a patient at the other end of Europe.

Yet alongside its potential, 6G also raises questions. The rollout of 5G in 2019–2020 triggered public concerns about health, the environment and privacy. Living in Switzerland, Calisti was surprised by the strong opposition from a big portion of the population.

This shows that new technology cannot assume instant public acceptance, she conceded. Calisti therefore wants to lay the groundwork now to ensure that 6G development puts people and the environment first and is widely accepted.

A society-first approach

The 6G4Society team brings together universities, industry, policymakers, non-profits and civil society groups from across Europe working towards future networks that are technically advanced, but also socially responsible.

“Our work is really unique because it is fully dedicated to looking at the societal, environmental and sustainability aspects of 6G technology developments,” said Calisti.

The initiative is also part of a wider European drive to accelerate the deployment of 5G and lay the foundations for 6G. At the heart of this effort is the European Smart Networks and Services Joint Undertaking.

This public–private partnership has a budget of €1.8 million for 2021–2027. It funds projects covering everything from advanced network technologies to security, cloud systems, sustainability and micro-electronics.

By bringing together EU policymakers, companies and researchers, it aims to keep Europe at the cutting edge of these technologies while ensuring they meet society’s real needs.

Voices beyond engineering

While engineers design the technology, social scientists help explain how it is used and how it fits into society.

One of these is Dr Katrina Petersen, a senior researcher with Public Safety Communication Europe, a non-profit that focuses on communications systems for emergency services such as fire brigades, ambulances and the police.

She argues that involving social sciences adds an important alternative perspective, because they explore why technology is used and what values it should serve. “Involving end users and broader society is vital,” she said.

To give a real-world example, Petersen pointed to the difficulties faced by emergency workers. In crises such as wildfires or floods, emergency responders from different agencies, or across national borders, still struggle to communicate.

By feeding these kinds of insights into the process, the 6G4Society team can help guarantee that developers already start by thinking about the impact of 6G and the needs of society and citizens, to help make lives better now and in the future.

Listening to citizens

To understand public expectations, 6G4Society scientists are surveying people across Europe about their experiences with 5G and hopes for 6G. Survey responses vary by location and age, said Calisti.

“Younger people are more concerned about environmental aspects, while older people are more concerned about privacy and security.”

Asked about 5G, 23% of respondents mentioned speed and connectivity, while 16% expressed concern or criticism. Most people expect 6G to deliver better access to fast and reliable information and remain optimistic – for now.

Many also expect 6G to be more energy-efficient, though Calisti is quick to point out that sustainability extends far beyond energy.

Mining for rare minerals, e-waste and broader ecosystem impacts also matter. Initiatives like 6G4Society aim to make sure these issues are not overlooked.

Shaping Europe’s digital future

The 6G4Society team will continue to engage the public through interviews, workshops and webinars until their collaboration formally wraps up in December 2025. Its findings will help inform EU policy and guide industry decisions for years to come.

As Europe prepares for the arrival of 6G, their work highlights the importance of shaping technology with societal values in mind.

By engaging citizens, social scientists and industry in dialogue, these efforts aim to make sure that the next digital revolution delivers not just speed, but a fairer and more inclusive future for all.

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More info

- 6G4Society (CORDIS)
- 6G4Society project website
- European Smart Networks and Services Joint Undertaking
- Connectivity – Shaping Europe’s digital future
- Connecting Europe Facility - Digital