

Transformed by crisis, an R&I perspective

The world has faced down a wave of unprecedented crises – or what French President Macron coined *poly-crisis* – threatening to tear societies and economies apart. That they did not is a testament to global political leadership underpinned by robust information and collective action across Europe, in particular.

The scientific community was at the epicentre of the global response to the gravest global health crisis in a century brought on by the spread of COVID-19. Rapid testing, digital solutions for tracking and tracing, new antivirals and treatments to reduce mortality, and ultimately, the development of effective vaccinations saved millions of lives, and mitigated the economic fallout.

The energy crisis, brought on by Russia's invasion of Ukraine, and the related security crisis and economic crunch that followed in Europe all draw to varying degrees on research and innovation for answers. Green energy innovations (capture, storage, smart monitoring) and renewable technologies are helping member states deal with an ongoing energy crisis – and meet their longer-term commitments to the UN's [Sustainable Development Goals](#) (SDGs), and the EU's [Green Deal](#), [2030 Goals](#), among other initiatives.

What this state of “permacrisis” – voted Collins Dictionary ‘word of the year’ in 2022 – has shown the world is that business-as-usual is no longer an option. Calls have grown louder for new approaches to everything from urban planning, promoting more liveable and sustainable cities (i.e. [15-minute cities](#)), to the [circular economy](#) aimed at efficient zero-waste production, to reshoring value chains, to [resilient ‘digital’ societies](#) capable of withstanding even the toughest of challenges and boosting inclusion.

When steady going is not enough

The consensus is that small tweaks and even gradual transition may not be enough to deal with the next crisis (or crises) befalling Europe and the world. This has given rise to the idea of transformative change – a systemic rewiring that would have struggled to gain traction before 2019.

But global climate, health and security concerns have spurred radical action, paving the way for a new paradigm in political, economic and scientific thinking; one that considers all possible contingencies and scenarios in achieving a set of broadly framed goals based on concrete problems translated into problems to solve or missions.

These ideas have been explored by expert group focused on the **Economic and Societal Impact of Research** ([ESIR](#), see box). In a recent Policy Brief, the ESIR Group discusses the machinations of ‘Transformation in the poly-crisis age’, and the need to avoid “short-termism” in political and economic cycles.

The Brief advocates a “protect, prepare and transform” approach as a comprehensive strategy for resilience. Here, *protect* means swift and coordinated responses leaving no one behind in an emergency. *Prepare* means envisaging a broad set of future risks and coordinating appropriate responses.

And to *transform* the economy and society, the Group proposes “challenge-driven approaches to research and innovation, triggering change that addresses the root causes” and enables “true resilience to future shocks”.

The experts are under no illusions that such transformations are easy.

For its part, the EU is aware of the risks of short-term R&I policymaking. Its main research funding instrument, Horizon Europe, is already longer and larger than any previous Framework Programme. And the whole mission-oriented approach to R&I clearly targets global-scale societal challenges, such as beating cancer, adapting to climate change, and restoring oceans.

But the ESIR Group believes that many other new and emerging initiatives and priorities are looking at crises from the wrong direction, trying to mitigate the consequences when they should be focusing more on preventing them in the first place.

“The EU is very attentive to the ‘protect’ and increasingly wary of the ‘prepare’ phase, but insufficiently geared towards transformation,” the Group writes in its very readable 12-page briefing, conceding that this is a vast challenge when faced with ongoing or new emergencies and pressures.

They explain how notions of sustainable “positive peace” resonate with efforts to promote resilience in the poly-crisis age. And they illustrate what this means in terms the policies, governance and leadership needed to build not only transformative models for social cohesion, but also the right conditions to foster innovation, human-centric technologies and solutions capable of delivering on Europe’s twin ‘green and digital’ transition.

Rather poetically, the Group offers an analogy to help leaders navigate the rocky seas stirred up in the poly-crisis world of today where the realpolitik of war and energy struggles overshadow what can appear, for example, as loftier green goals:

“Many will suggest that Europe’s journey towards resilience and sustainability may well need to take a detour until the emergency is over. In our opinion, this is an illusion, and a very risky one, especially when the crisis is linked to finite and dwindling resources. The state of crisis, without systemic, adaptation-oriented transformation, will never be over.”

It is a sobering thought.

[More info](#)

[Download](#) the full ESIR Policy Brief No. 5 (Feb. 2023), ‘Transformation in the poly-crisis age’.

What is the ESIR Group?

In the autumn of 2017, the European Commission created a high-level group dedicated to better understanding the *Economic and Societal Impact of Research*, or ESIR.

The ESIR Group’s 16 experts provide independent advice on how EU research and innovation policy can best support economic and societal transformation in the context of [Europe’s 2030 climate and energy goals](#) and achieving its twin ‘green and digital’ transition and a resilient economy.

This forward-looking “[European growth model](#)” was first articulated in March 2022, as Europe and the world were emerging out of the COVID-19 crisis.

The Group issues briefings, memos and strategic advice on how R&I policy can lead and support societal transitions towards the 2030 goals through solution-oriented initiatives that “address current grand challenges”. The Group’s remit is to experiment in finding “new and more impactful public policies”, but also innovative “outreach activities to fully engage with relevant stakeholders”. Now in its third (2022-2023) term, and with a new composition and renewed mandate, ESIR is keen to explore sustainability issues from a variety of angles and involve all relevant networks, communities and stakeholders as part of a co-creation process. Here, EURAXESS WORLDWIDE would be encouraged to **forge closer ties with ESIR** and provide its unique international perspective and insights.

Mission: transformational solutions

As one of its first deliverables, ESIR issued a memo describing how the EU’s mission-oriented R&I policy can help to frame societal challenges as “concrete problems” requiring major, **transformational solutions** capable of “rebalancing economies”.

In this document, published December 2017, ESIR noted that Europe’s over-reliance on certain sectors needs a rethink. This, they add, can be done by identifying and articulating missions that don’t just “galvanise but also transform production, distribution, and consumption patterns across various sectors in new directions”.

The memo, entitled [‘Towards a mission-oriented research and innovation policy in the European Union’](#), introduced the challenges faced by the European Research Area, how a mission-oriented R&I agenda can help to tackle economic problems and societal challenges in tandem, making clear distinctions between *challenges*, *missions* and *instruments* under Horizon Europe – the EU’s current Framework Programme for Research.

ESIR offered its “first reflections on how to implement a mission-oriented R&I policy” which presciently acknowledged the complexity of the task in times of rapid change. Indeed, within two years of releasing the memo “transformational solutions” would be called for with the onset of a global health crisis under the COVID-19 pandemic followed by an energy, security and economic crisis ushered in by Russia’s invasion on Ukraine.