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**Enterprise
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What's on Europe's Horizon?: Technologies, Trends and Policies Shaping Ireland's Future

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Organised in conjunction with Enterprise Ireland and the Irish Department of Enterprise, Trade and Employment, this panel discussion on the subject of ‘What’s on Europe’s Horizon?: Technologies, Trends, and Policies shaping Ireland’s Long-Term Future’, the second in a two-part series on the subject of horizon scanning, took place at IIEA headquarters in Dublin on 14 November 2024. This discussion focused on how Europe can thrive in a changing world and ensure that the European Union (EU) and its Member States are best placed to identify and meet the wide and varied public policy challenges which may arise.

The panel was composed of Pascal Leardini, Chair of the European Strategy and Policy Analysis System (ESPAS), and Deputy Secretary-General and Chief Operating Officer of the European Commission; Peter Clifford, Head of Strategy at Research Ireland; Elena Lazarou, Senior Analyst at the European Parliamentary Research Service; Kevin Flynn, Head of the Irish Liaison Office for Research and Innovation in Brussels for Enterprise Ireland; and Una Fitzpatrick, Director of Technology Ireland, which is a part of IBEC. Dan O’Brien, IIEA Chief Economist, chaired the discussion, which was held in a hybrid format, with Leardini and Lazarou joining the discussion online. After opening remarks from each panellist, the chair facilitated a discussion between the participants before a live Q&A exchange with the audience.

In his opening remarks, Pascal Leardini focused on the role of ESPAS and its latest [Global Trends Report](#), that is published every five years. Leardini described ESPAS as a forum for informal cooperation on strategic foresight that brings together nine EU institutions and bodies. Its Global Trends Reports are intended to help prepare Europe’s leaders by helping to identify what might lie ahead. The report focuses on ten global trends that ESPAS believes will have the most impact on the EU and its Member States in the coming decades. The report also defines some of the inevitable strategic choices and questions that will arise for leaders and citizens alike. The report is arranged around five interlinked areas, namely: geopolitics, the environment, the economy, technology, and social wellbeing.



Pascal Leardini, Chair of the European Strategy and Policy Analysis System (ESPAS), and Deputy Secretary-General and Chief Operating Officer of the European Commission

To explain how ESPAS promulgated the report, Paschal Leardini focused on the example of technology. He explained that there are two phases. First is the analytical phase, which is intended to produce ideas. This is followed by a phase when ideas are then used to try to shape policies. In the first phase, ESPAS looks at the deployment and adoption of new technologies. The speaker pointed out that there has been an obvious acceleration in the development and deployment of new technologies, but what is new is how technology crosses domains including biotechnology and clean technologies. Leardini stated that this acceleration has been driven by research and innovation, economic and geopolitical ambitions, and political choice. In the second phase, ESPAS examines the policy implications of an issue, and what developments might mean for decision makers. The speaker pointed out that in the new European Commission (2024-2029), there is an Executive Vice-President for Tech Sovereignty, Security and Democracy (the role is currently held by Henna Virkkunen from Finland), which reflects the ideas put forward in the Global Trends Report. Part of the role of this Executive Vice President will be to spur innovation in a way that serves Europeans well. The speaker argued that this raises the question of how the EU regulatory framework can be ensured to incentivise innovation and act as an enabler for other aspects such as when it comes to access to capital. Leardini concluded his remarks by stating that although the strategic choices may look daunting, the EU and its Member States have the abilities and tools to enable change and turn challenges into opportunities.

Peter Clifford’s remarks centred on the question of why research funders undertake strategic foresight. He explained that research funders meet economic and other needs, such as those relating to societal, cultural, and environmental factors, through research, and they need to be able to identify what those needs are. Time frames can be difficult to ascertain, and it can take between seven and ten years for a research programme to come to fruition.

Clifford moved on to a discussion of how research funding can be made tenable in the first place. He explained that at the newly established Research Ireland agency, which was established following the amalgamation of Science

Foundation Ireland (SFI) and the Irish Research Council (IRC) in 2024, they are currently putting together a strategy to help make research funding tenable. He stated that Research Ireland want to focus on questions such as why would any given research project take place in Ireland and what is unique about Ireland that makes this research relevant. Clifford continued to explain how Research Ireland will approach these questions. He stated that as Research Ireland undertakes horizon scanning, the organisation needs to develop partnerships with bodies such as Enterprise Ireland and the Irish Department of Further and Higher Education (DFHERIS). He also acknowledged that the researchers themselves are making great progress on how to do strategic foresight. He gave the example of Dr Dieter Kogler in UCD who studies how research and knowledge evolve. Through his research, Dr Kogler tries to predict how current knowledge will evolve and what the emerging areas of innovation and research will be that could be beneficial for Ireland. Clifford concluded his remarks by stating that it is important to have a broad base of research capacity, capability, and excellence in Ireland, as a means of promoting resiliency and agility. This is particularly important for addressing unanticipated events as and when they arise.

Elena Lazarou spoke about four trends on the geopolitical landscape that the European Parliamentary Research Service (EPRS) has been monitoring. The first trend concerns what she dubs 'the locus of power'. She remarked that power is being increasingly diffused on the international stage, with substate, private, and local actors holding power, along with states. The second trend concerns how these actors can cooperate. The EPRS looks at whether these actors are cooperating in a structured way or whether there has been a fragmentation of the international environment and of the actors that hold power in this arena. They also look at how to navigate this environment and carry out diplomacy. The third trend Lazarou identified involves societal dynamics. This includes looking at how different societal developments are impacting how politics is carried out, and how that feeds into international cooperation. The final trend looks at trade and economic security. The EPRS investigates how global security dynamics are being affected by how free trade is being increasingly weaponised, polarised, and reconfigured. Lazarou concluded by explaining that those using foresight techniques have been looking at these trends for the last 20 years and how they have gradually but perceptively moved towards becoming considered security issues, in addition to economic and political ones.

Kevin Flynn discussed his work with the [National Support Network for Horizon Europe](#). The network is made up of experts in areas including health and digital policy and aims to build on Ireland's track record of winning EU funding. Ireland is currently ranked 13th out of the 27 Member States in terms of the awarding of EU funds and, to date, has drawn down about €812 million in funding. This includes €213 million going to small- and medium-sized enterprises (SMEs). He stated that one in five eligible proposals from Ireland are retained for funding and emphasised the importance of the funding for Enterprise Ireland to be able to collaborate internationally. Part of the role of the network is to build a bridge between academia, industry, and new sources of knowledge, both domestically and internationally. Flynn then reflected on the current economic situation in Ireland, stating that Ireland is in a good position relatively speaking, but that it needs to become more intensive in its pursuit of research and development opportunities. He emphasised that, even though research and development funding has increased into Ireland, it is still far behind where it needs to be, with Ireland's Global Innovation Index Score trending in the wrong direction¹.



Kevin Flynn, Head of the Irish Liaison Office for Research and Innovation in Brussels, Enterprise Ireland, Una Fitzpatrick, Director of Technology Ireland and Peter Clifford, Head of Strategy at Research Ireland

Una Fitzpatrick began her remarks by discussing the Digital Single Market. The Digital Single Market has experienced rapid development over recent years, especially from a regulatory viewpoint, with legislation such as the AI Act, the Cyber Resilience Act, and the Digital Services Act being introduced. Fitzpatrick emphasised the importance of the effective implementation of these Acts and called on the new European Commission to implement and assess these pieces of legislation. Fitzpatrick discussed the possibility of Europe becoming an AI continent and argued that this can only happen if there is a harmonised implementation of the AI Act,

¹ Ireland Ranking in the Global Innovation Index 2024.

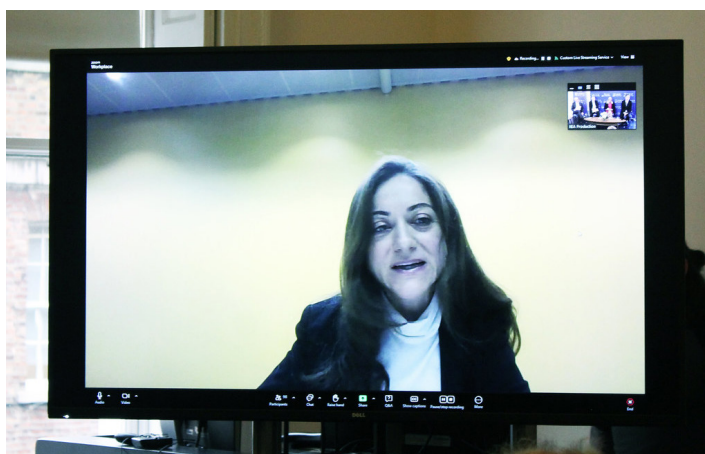
insisting that the level of rules introduced do not ultimately restrain our capacity to innovate. She also argued that a Single Digital Market will be thwarted if Member States apply rules differently, emphasising the importance of effective harmonisation. Fitzpatrick also discussed sustainability and energy. She pointed out that AI is energy intensive, and that Ireland has a great opportunity in that area due to the number of data centres in the country. She finished by briefly discussing the possibility of accelerating the development of offshore wind energy in Ireland, stating that it could lead to an energy surplus and to Ireland even becoming an energy exporter.

Following the opening remarks, the chair, Dan O'Brien, posed some questions to the panel, starting with a question on the pace of change. Una Fitzpatrick began by saying that there has been an increase in change, but that the EU has focused on regulatory change where other regions have focused on technological change. She said there is currently a race on towards developing new technologies, and other regions are racing ahead. Kevin Flynn agreed that there has never been a pace of change before like there is presently. He said that what makes the present different is the convergence of technologies, remarking that it is very difficult for industries to understand how to combine different technologies, such as AI, rapid prototyping, and automation together to achieve effective results.

Elena Lazarou argued that along with measuring the pace of change, we should also be measuring how and where change can impact society. Peter Clifford took a different view of the question by looking at the pace of change in research and how research output can drive innovation. The number of research publications has increased steadily every year, and he said that we have almost become a victim of our own success regarding research, arguing that society has achieved so much, that progress is only being made more and more incrementally. Pascal Leardini agreed the issue is not the pace of change per se, but instead the impact of change. He gave the example of when the European Commission was legislating for biotechnology 25 years ago, that legislation and policy only impacted three sectors. Now when legislating for AI, it impacts every sector. He said that this begs a lot of strategic questions such as how best to regulate and what type of regulation or legislation should be put forward. Kevin Flynn tried to define the pace of change differently and from the perspective of SMEs. He gave the example of an SME in the manufacturing space and how they have to consider the impacts of *not engaging* in technological advancements, such as not automating or not going green or not going digital. Fundamentally, SMEs have to consider where they are going to be in the future if they do not adapt to these advancements.

Dan O'Brien asked a follow up question regarding whether small companies have the capacity to understand all of these changes and their impacts. Flynn responded that this is indeed a major challenge, but Enterprise Ireland attempts to support small companies facing these issues. He pointed out that Enterprise Ireland fund research centres that can help small companies navigate the different options available to them.

A member of the audience asked a question on the issue of developing and investing in digital, AI, and quantum technology and balancing that with decarbonisation, stating that it is difficult to invest in these areas without the energy capabilities. Leardini said this is a well-known issue in Brussels but stated there are tools at the European level, such as the Connecting Europe Facility, that tries to fund missing links in terms of transport, energy, and digital connections between Member States. Una Fitzpatrick argued Ireland needs to develop its energy grid. She pointed out that there has been great ambition in Ireland regarding energy, but very little groundwork has been done, and she is concerned that Ireland will not meet its targets.



Elena Lazarou, Senior Analyst at the European Parliamentary Research Service

Another member of the audience asked if there will likely be any increase in the EU's innovation budget from 1% of GDP to 2% or whether it will, in their words, be left to the private sector to supplement any investment. Leardini stated that there is no chance of the investment in innovation increasing from 1% of GDP to 2% of GDP but that there could still be an increase seen over the course of this Commission's mandate. He argued that there must be synergy between national budgets for research and innovation and European budgets for research and innovation.

Dan O'Brien asked Elena Lazarou if the issue of security and defence has risen up the agenda of European parliamentarians since the Russian invasion of Ukraine. Elena responded that the European Parliament has been a frontrunner in arguing for EU financing for defence research, particularly dual-use research, since before Russia's full-scale invasion of Ukraine in 2022. She stated that this has increased since the invasion, with the entire European policy eco-system taking a step up in their interest in security and defence issues.

When asked about Ireland's role in these security and defence issues, Kevin Flynn responded to say that it is likely that the funding opportunities from a European perspective will be very high, so Ireland can no longer stand back and not get involved in this space. However, he stated that Ireland needs to be clear about what it can and cannot do.

A person attending the event over Zoom asked the panel what they think are the most important emerging risks for a small open economy, such as Ireland, that faces a scale challenge and what are their biggest concerns as Ireland faces into the possibility of trade barriers across the Atlantic. Una Fitzpatrick responded to say that if there is a trade war, it is very likely that the tech sector will be caught up in it which, given the significance of that sector for Ireland, should be of concern to policymakers here. Initially, the trade war might not be directed at the sector but there are always knock-on effects. Leardini responded to the question by saying that the European Commission hopes there will not be a trade war or a breakdown in transatlantic trade and they will do everything to avoid this outcome.



Peter Clifford, Head of Strategy at Research Ireland, Kevin Flynn, Head of the Irish Liaison Office for Research and Innovation in Brussels, Enterprise Ireland, Dr Orlaigh Quinn, IIEA Board member, Una Fitzpatrick, Director of Technology Ireland and Barry Colfer, IIEA Director of Research.

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