

## **CLAIRE – the World’s largest Network for AI Research**

**The world's largest network for artificial intelligence research, set up by experts across all of Europe, complements the new European Commission's focus on human-centred, trustworthy AI, aiming to create critical mass for AI made in Europe. Exactly for that purpose, the Confederation of Laboratories for AI Research in Europe (CLAIRE) was established.**

The newly appointed European Commission has made action on artificial intelligence (AI) a top priority – a much needed pledge in light of the massive investments in China and the United States of America. This follows earlier resolutions by the Commission, the European Parliament and member states to ramp up investments in research and innovation in artificial intelligence. Yet, so far, decisive action remains largely elusive.

“Europe is home to many of the world's best AI researchers, and companies throughout Europe are not only interested, but also rather active in AI,” says Holger Hoos, Professor of Machine Learning at Leiden University, The Netherlands. “What's missing is a bold and ambitious push, a Europe-wide initiative that brings together those experts, connects them better with each other and with those who want to use artificial intelligence to address important problems, such as climate change. When the new Commission follows ambitions with actions, we will be ready – ready to develop and deliver the kind of research results and technologies that truly make a difference.”

### **To ensure the success of AI made in Europe**

The Confederation of Laboratories for AI Research in Europe (CLAIRE) was established exactly for that purpose. CLAIRE aims to ensure the success of European artificial intelligence through a focus on excellence in research and innovation, on attracting talent from across Europe and around the globe, and on close collaboration with a broad range of application sectors. Over the past 12 months, CLAIRE has grown into the world's largest AI research network, bringing together more than 340 research groups and research institutions, with over 20,000 employees in 34 countries and a total annual budget of over 300 million Euros. “This sounds like a lot,” says CLAIRE co-initiator Philipp Slusallek from the German Research Centre for Artificial Intelligence (DFKI), “but in reality, it's just a small fraction of what is needed to compete globally. It is also quite modest compared to, say, the budget of CERN – one of Europe's great success stories and a model for the kind of impact and reputation CLAIRE is aiming for.”

“CERN, Galileo and Airbus are examples of great European undertakings, and that's what we need to do in artificial intelligence as well,” says Morten Irgens, Oslo Metropolitan University, and adds, “CERN's annual budget is about 1 billion Euros, and that money is very well spent, considering the foundational research done there and the global reputation, the international draw on top talent Cern has. Imagine what could be achieved for artificial intelligence with this kind of an investment into basic AI research in Europe.”

### **An inclusive, human-centred vision of AI**

“From the very beginning, CLAIRE has embraced an inclusive, human-centred vision of AI that brings together experts and talent across all of Europe, including countries outside of the EU,

such as Norway and Switzerland,” adds Professor Carme Torras from the Institut de Robòtica i Informàtica Industrial (CSIC-UPC) in Barcelona, one of the world's leading experts in robotics. “This is enormously important, since we need to focus on the kind of AI research and applications that bring the most benefits to everyone, and to be successful in this, we need to draw on all the talent and expertise we have.”

“The key to success is to create critical mass – to now build on the different efforts in the European AI community. Such efforts span different European countries as well as different areas within AI, such as machine learning, automated reasoning, planning and optimization,” says Manuela Veloso, Head of AI Research at J.P. Morgan and professor at Carnegie Mellon University (USA), “it is time now to bridge conceptual and geographic distances and to contribute to the integration of different parts of AI, as many applications, for example in robotics, increasingly rely on combinations of techniques from different areas in AI.”

### **Guidance to position AI made in Europe**

Prof. Veloso is one of eight members of CLAIRE's newly minted international advisory board, which includes leading AI researchers from Australia, Canada, Germany, Japan and the USA. “The members of this board bring a broad range of experience from academia, industry and major European institutions, including the European Commission and CERN,” says Prof. Hoos and adds, “their guidance will be invaluable in helping us to position European AI for success, by realising CLAIRE's bold vision to excel in the kind of AI research and innovation that balances the interests of individual citizens, enterprises and society as a whole.”

This vision has already attracted the statements of support from the governments of nine EU member states; CLAIRE's ambitious and inclusive bottom-up push for excellence in AI research and innovation has also provided the basis for a fruitful collaboration with the European Space Agency, which has recently created strong links with CLAIRE through a joint special interest group on AI and space, which - amongst other space-related topics – has a strong focus on Earth observation and climate science.

### **Create a nexus for the right kind of AI research**

“AI is going to affect all aspects of our work and life,” says Prof. Catholijn Jonker from the Technical University of Delft, one of the world's leading experts in multi-agent systems – an area of AI that deals with how AI systems work with each other and support human users. “It is therefore crucial that we get this right. The public should have a big stake in AI research. We can't leave it to a few big companies, or to other countries to take the lead in human-centred AI. We have fantastic AI talent across Europe, and a lot of interest in AI for social good, rather than AI merely for profit. Let's bring all of this together – let's create a nexus for the right kind of AI research and innovation, and let's do this here in Europe, where we've gotten pretty good at creating value from diversity. That's what CLAIRE is about, and it's great to see it gaining traction so rapidly.”

## **About CLAIRE**

CLAIRE (Confederation of Laboratories for Artificial Intelligence Research in Europe, [claire-ai.org](http://claire-ai.org)) is an initiative by the European AI community that seeks to strengthen European excellence in AI research and innovation, with a strong focus on human-centred AI. CLAIRE aims to establish a world-wide brand recognition for "AI made in Europe" (at the level of CERN), and to position Europe in control of its own future.

The initiative was launched in June 2018 and now has the support of more than 3,000 people, most of them scientists, technologists, and researchers in Artificial Intelligence. The supporters represent the vast majority of Europe's AI community, spanning academia and industry, research and innovation. Among the supporters are more than 140 fellows from various key scientific associations. CLAIRE has opened administrative offices in The Hague, Saarbrücken, Prague, and Rome, with additional offices to be opened this year in Oslo, Paris, and Zürich. Furthermore, nine advisory groups with 48 members from 18 countries have been established, covering all areas of AI, along with the topics of ethical, legal and social implications of AI. CLAIRE also consists of a membership network of over 340 research groups and research institutions, covering jointly over 20,000 employees in 34 countries. In addition, CLAIRE is working on setting up an industry network in order to follow up its commitment to foster close links between non-profit research and impactful industrial applications. The initiative has received official letters of support from the governments of nine European countries, from 28 scientific associations across all of Europe, from the European Association for Artificial Intelligence (EuRAI, which is the key European association for AI researchers), from the Association for the Advancement of Artificial Intelligence (AAAI, the key international association for AI), and from the European Space Agency (ESA).

CLAIRE is also actively liaising, on an ongoing basis, with other important organizations, including ELLIS, the HumanE AI consortium, the Big Data Value Association, euRobotics and AI4EU, as well as ESA. CLAIRE strongly endorses the general direction mapped out by the European Commission in its communication of 25 April 2018. CLAIRE's bottom-up, community-driven approach complements the top-down process put into place by the European Commission.

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