

“We had to find a way, despite the global pandemic” **The 2020 (Digital) French-German Summer-school** **on Artificial Intelligence with Industry**

- Summary Report -



Gathering industry players, researchers, academics and policy makers on Artificial Intelligence, from France and from Germany in a time of a Corona pandemic: for many, mission impossible? Not for the organisers, who hold the French-German Summerschool on Artificial Intelligence with Industry, on last 24th June.

“For us, it was a question of sticking to our values: we had to show that a virus cannot get rid of innovation and our French-German partnership. We had to show that despite a global pandemic, research does move on, innovations in AI and Big Data keep coming up, and European cooperation lives” have declared the organisers - the University of Passau (Germany), Ecole Normale Supérieure Paris Saclay (France) and Siemens Artificial Intelligence Lab.

As a result: an event not only 100% digital but also relevant in the alternative ways put forward for people to contribute. On the day of the event, scientific, industry and policy messages from European, French and German leaders and researchers have been launched on the event website¹ – where they will stay until the end of Summer for anyone interested to watch. In addition, a 4-hour live session took place including live talks, chat, active breaks and interactive questions.

This creative approach was fruitful: this year’s edition – **the fourth Summerschool on Artificial Intelligence with Industry - has beaten all records.** *“Without counting all people who watched the videos on our website, more than a hundred participants joined the live session. We did not expect such interest! And after no less than 5 hours of discussion, more than three-quarter were still online: for us the best proof that what we offered has met what people needed.”* note enthusiastically the organisers.

A first element explains the success of this initiative: even if the prime target group have always been researchers and young scientists, this yearly event gathers also industry and policy players. Consequently, **all stakeholders** of Artificial Intelligence in France and Germany are represented, and exchanges and dialogue benefit from such complementarity.

“Today, this is a truly unique set up!” has praised Marco-Alexander Breit, Head of the Artificial Intelligence Taskforce in the German Ministry of Economy in a video message to the participants. *„It is of utmost importance that we cooperate in Europe on the level of companies, academic structures and people with great minds and ideas. It is very important that companies are working with you here because they make sure that the transfer of good ideas in business models and in the European economy is covered.”* Hervé Martin, Scientific Advisor at the French Consulate in Munich has echoed the same enthusiasm, highlighting

¹ <http://mlmda.cmla.fr/french-german-summer-school-for-industry-2020/>

that *“if we want to keep human at the core of the digital transformation, we have to join and associate all talents, from the public and private sectors”*.

Such an approach is natural for the University of Passau and Ecole Normale Supérieure Paris Saclay. Both institutions are known for the high level of their mathematics and computer science Masters and PhD programs; contributions from their students and researchers made live at the event or through their scientific videos reflect such high standards. But beyond this academic performance, their International Research and Innovation Centre on Intelligence Digital Systems (led by Prof. Harald Kosch and Axelle Cheney) on the side of the University of Passau and the Chair of Industrial Data Analytics and Machine Learning (IDAML, led by Prof. Mathilde Mougeot) on the side of Ecole Normale Supérieure Paris Saclay, steering the Summerschool, are also famous for ensuring that research is strongly connected to international networks and key industry leaders in both countries.

Another explanation for the Summerschool's booming success lies on the **topics covered** - machine learning, artificial intelligence engineering and artificial intelligence „for the good“. *“Why is this Summerschool so important? Because AI is a key issue for the future! Challenges are great: protecting our planet, strengthening cohesion in Europe, supporting resilience in a pandemic, maintaining economic prosperity...”* has explained Michael Jaspers, Scientific Advisor at the German Embassy in Paris. And *“This topic of computer and mathematical applications of AI to industry is very important because Artificial Intelligence today needs to be put into concrete applications”* has added Lionel Grotto, CEO of Choose Paris Region; a similar point of view was expressed on the side of research by Pascal Auscher, Director of the National Institute of Mathematics and their Interactions at the French Centre National pour la Recherche Scientifique CNRS, highlighting *“our door is open to cooperations!”*.

It is clear that **many players see in the development of Artificial Intelligence its strong potential** for supporting economic growth in France and in Germany, in particular following the economic crisis due to the Corona pandemic. *„Future resilience to another crisis will depend, for SMEs and even big groups, on their overall capacity to prepare themselves and include "digital" in their strategy as a tool but also as a mindset“* has warned in a video message Juliette Jarry, Vice President of the Region Auvergne Rhone Alpes, in charge of Digitalisation. *„Everything is going on an international scale and we have to be competitive to maintain the industry on our territory. Clearly "digital" can help providing a better supervision of quality, responsibility and responsiveness.”*

But the Summerschool was also very successful in **making priorities converge**: by raising the potential brought by Artificial Intelligence **to support a sustainable and environment-friendly society**, the Summerschool has managed to reflect that today, economic growth and environmental-friendly sustainable development go hand in hand. Natasha Eckert Siemens Head of University Relations has recalled: *“A lot of people ask for the rationale behind the technology. They want to understand the impact and the value that technology generates for society and for the world! AI is not the end! “*

This aspect has been particularly dear to the Siemens Artificial Intelligence Lab (led by Dr. Ulli Waltinger and Benno Blumoser), co-organisers, who chaired a live session where the use of AI to control wildfire, stimulate sustainable international development or support the management of pandemics by hospitals were brought forward. It fully meets the new focus put by the University of Passau and its new President, Ulrich Bartosch, on the theme of sustainability: *“one unique trend of the University of Passau is its strong attachment to the issue of sustainable development, which is increasingly evolving into a cornerstone of our University's identity: with no less than three new professorships [gained through the AI Competition organised by the Bavarian Chancellery], we will be able to establish a strong foundation for an interdisciplinary research focus on AI & sustainability”* has declared Ulrich Bartosch in a video address.

Moreover, such an approach fits in **the European Union's vision**, as recalled by Juha Heikkilä, Head of the European Commission Artificial Intelligence Unit, who in a video opening message has welcomed *„the fact that the French-German Summerschool on Artificial Intelligence echoes the comprehensive approach the European Commission has adopted, because it is both on the technological aspects and on AI for the Good, highly recommendable in our view.”* Accelerating jointly the ecologic and digital transitions is one of the four pillars of the Franco-German Initiative for European Recovery following the Coronavirus

crisis, presented jointly by Emmanuel Macron and Angela Merkel in May, an initiative in the mind of many participants.

*“Your Summerschool is a great example of **France and Germany or France and Bavaria joining forces in the area of high-end technology!**”* has echoed enthusiastically Bernd Forster, Head of the Department international relations with West and North Europe in the Bavarian Chancellery, who joined the event live and made the official opening. *“We need more of these initiatives in the future. That was also the outcome of the meeting of President Macron and Minister President Söder just a few months ago: both leaders underlined the importance of franco-german, franco-bavarian cooperation in the field of science and technology and your Summerschool is of course an excellent example for this! All instruments of cooperation between France and Germany refer to digitalisation, refer to Artificial Intelligence.”* The strong connection between France and Germany in this field has also been highlighted by Philippe Mareine, ATOS Chief Digital & Transformation Officer, Head of CSR, who expressed his wish to *„take the best out of the discussions today and **bring the French-German collaboration to the next level**, for the benefits of our people, of our customers and the society at large “.*

The **link between the French-German Summerschool and current trends at EU level** was finally brought out by Hubert Tardieu, CEO Advisor of ATOS in his live address: *“AI for Industry has become a real essential topic well recognised by the European Commission, as reflected in the Public Private Partnership in preparation”* said Hubert Tardieu, who has worked for many years with Thierry Breton, today European Commissioner in Brussels and who has supported the French-German Summerschool since its onset in 2017. Indeed, that French and German top research and industry join forces in this field, is perceived by many as the right strategy for ensuring that European players still count among tomorrow’s leaders worldwide, as praised by Philippe Greciano, Vice-President of the French-German University (UFA/DFH): *“The topics you deal with at the Summerschool remind us that Europe is in the forefront in AI and that thanks to the French-German cooperation, research can defend its place on the international scene”.*

On the side of the organisers, **reflections have started regarding the 2021 edition** of the French-German Summerschool on Artificial Intelligence with Industry. Following this year’s success, the format, the topics, the dates for the next edition are already being discussed. Several players have expressed the wish to patronise the initiative. Ulrich Bartosch, the new President of the University of Passau for whom this year’s edition was the first experience of the French-German Summerschool in AI with Industry has emphasised the effectiveness of this initiative to strengthen European partnerships between academia, industry and public policy, recalling that *“the University of Passau is a key academic player in computer science in Bavaria thanks not only to our research and teaching but also to our fruitful cooperation on digitalisation with great academic and industry partners in the Danube valley”*, a synergetic approach going even beyond the borders of Bavaria: *“much of what we do in the University of Passau is also geared towards supporting the Franco-German roadmap on Artificial Intelligence.”*

On the French side, Pierre-Paul Zalio, President of the Ecole Normale Supérieure Paris Saclay and Laurent Prével, Director of the Ecole Nationale Supérieure d’Informatique pour l’Industrie et l’Entreprise, who attended the French-German Summerschool in Bavaria last year, have both repeated this year their enthusiasm and their wish to continue with this yearly initiative. It is both in French and in German that Laurent Prével has highlighted: *“I am convinced of the success of the French-German projects in Artificial Intelligence!”* whereas Pierre-Paul Zalio brought out that *“the French-German cooperation has never been so much strategic as today. Developing this cooperation in transfer learning and machine learning is more than strategic for many reasons”* **Computer science students from these institutions already benefit from French-German academic paths**, allowing them to spend some of their postgraduate studies in Passau; thanks to such schemes some are now doing their Masters’ degree or PhD within an industry partner in Bavaria.

Being committed to the French-German dialogue and bringing in its own strengths, this is finally maybe the ultimate key, explaining the success of the French-German Summerschool on AI with Industry. *“What is clear is that with Siemens AI Lab, the University of Passau and ENS Paris-Saclay, we had the*

dream team!” confess one of the organisers. “Like all participants in our Summerschool, some of us are French, others are German, some work in industry, others in academia, some are mathematicians or computer-science specialists, others have a policy or communication background... This diversity is our strength and this is also what makes this initiative so powerful. And it was great to see that despite the challenges related to the Corona pandemic, all participants had with us one shared determination: to pull up our sleeves and make this joint French-German initiative work.”



Background Information

Origin

The French-German Summerschool Artificial Intelligence with Industry is an initiative jointly created by **Ecole Normale Supérieure Paris-Saclay (France)** and **the University of Passau (Germany)** aiming at gathering **researchers and industry players active in Artificial Intelligence in France and Germany/Bavaria**. The first such Summerschool on AI with Industry emerged 4 years ago. Since the 2019 edition, particularly successful, the shift moved from a purely scientific to a broader experts' event in which **public players** also take part (cf. *Annex 1 - press release 2019*). The 2020 edition of the Summerschool was supposed to take part in Clermont-Ferrand (France), on the site of Michelin, partner of this year's event.

Format

Due to the Covid-19 pandemic, this format had to be adjusted: **with the conviction that it was important to hold this event so as to give a strong signal that innovation, the European cooperation and the French-German dialogue goes on**, the organisers decided to convert the 2020 Summerschool into a 100% digital and innovative initiative (cf. *Annex 2 - Agenda*).

Siemens AI Lab accepted to support the organisation of this event; Siemens' expertise was mobilised on the one hand for the technical feasibility of the live session of the Summerschool, on the other hand on the discussions and scientific contributions related to AI & sustainability („Artificial Intelligence for the Good“).

In the morning of the 24th June, participants were given free access to a number of videos and messages from academia, industry and public players; in the afternoon a live session – with a strong scientific focus – took place.

Audience

In 2019, approximately 80 participants took part in the Summerschool in Passau.

For the 2020 edition, **more than 100 people joined the live session and many more have visited the event's website to watch the video messages, presentations, and scientific slides.**

Participants in the French-German Summerschool included representatives of

- ✓ **Academia** – University professors, researchers, PhD students and post-docs
- ✓ **Industry** – from BMW, the German Aerospace Center, GIZ, Siemens, Réseau Transport Electricité, SNCF, Michelin, Bertin, Banque de France, ATOS, etc.
- ✓ **Public authorities** – EU, regional and national authorities, research networks, universities



Participants sending videos or written messages come from **academia** from **industry** and from **public players**. Videos focus on various topics (*cf. Annex 3 - Document Video and Messages specifications*).

Confirmed video messages **from prominent public players** came from:

- Juha Heikkilä, **Head of Unit Robotics and Artificial Intelligence, European Commission**
- Juliette Jarry, **Vice-President of Région Auvergne Rhone Alpes** in charge of Digitalisation
- Marco Alexander Breit, **Head of Department Artificial Intelligence at the Bundesministerium für Wirtschaft und Energie**
- Lionel Grotto, **CEO Choose Paris Region**
- Dr. Michael Jaspers, **Scientific Advisor of the German Embassy** in Paris
- Prof. Hervé Martin, **Scientific Advisor of the French Consulate** in Bavaria
- Prof. Philippe Gréciano, **Vice-President of the Deutsch-Französische Hochschule DFH-UFA**
- Prof. Pascal Auscher, **Director of the CNRS National Institute for Mathematical Sciences and their Interactions**
- Prof. Pierre-Paul Zalio, **President of Ecole Normale Supérieure Paris-Saclay**
- Prof. Ulrich Bartosch, **President of Universität Passau**
- Laurent Prével, **President of Ecole Nationale Supérieure d'Informatique pour l'Industrie et l'Entreprise**
- Philippe Mareine, **ATOS Chief Digital & Transformation Officer, Head of CSR**
- Dr. Natasha Eckert, **Head of SIEMENS University Relations**

Dr. Bernd Forster, Head of the Department international relations with West and North Europe in the Bavarian Chancellery (Germany) and **Hubert Tardieu, ATOS CEO Advisor (France)** were the two officials formally opening the afternoon session, echoing the interest and active participation of both public stakeholders and industry in our event. The live opening was moderated by Anja Shuster, Head of Communication Department at the University of Passau.

More information

Organising team: Prof. Harald Kosch and Axelle Cheney (Uni Passau) Axelle.cheney@uni-passau.de, Prof. Mathilde Mougeot (ENSIIE & ENS Paris-Saclay, holder of the Industrial Data Analytics and Machine Learning chair) mathilde.mougeot@ens-paris-saclay.fr, Ulli Waltinger and Benno Blumoser (Siemens AI Lab) and their colleagues.