



Activity Report 2025

The International Research & Innovation Centre for Digital Intelligent Systems IRIXYS relies on the close cooperation between the University of Passau (Germany), the University INSA Lyon (France) and the University of Milan (Italy).

On Tuesday, October 28, 2025, the successful collaboration of the IRIXYS network was formally renewed and contractually sealed at the University of Passau. At the invitation of co-founder Prof. Dr. Dr. Harald Kosch, the Deggendorf Institute of Technology was also able to join the network.

IRIXYS activities are based on three pillars.

Firstly, IRIXYS supports academic exchanges, including the implementation of double master's degrees and Cotutelle doctorates, the organisation of workshops for young researchers and the organisation of academic summer schools.

Secondly, IRIXYS makes sure to forge a strong partnership with industry (ATOS, Siemens, etc.) and institutional actors.

Thirdly, IRIXYS relies on top joint research, currently being carried out in the fields of big data analytics, artificial intelligence and IT security, focusing on transversal axes: environmental impact, green IT; ethics, trust and protection of private life; numerical sovereignty and open science.

These activities are made possible thanks to the financial support of the Bavarian State Chancellery (Bayerische Staatskanzlei) as well as the German-French University (Deutsch-Französische Hochschule/ Université Franco-Allemande).

Following the profound reflexion on the future orientation and development of the common research program initiated a few years ago, we continued in 2025 implementing the new agenda toward a more sustainable organisation.

**The purpose of this document is to report on all activities undertaken in 2025 by and in cooperation with IRIXYS and to assess to which extent this ambition has been fulfilled.**

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## 1. Academic and Scientific Collaboration

### 1.1. Renewal of the IRIXYS cooperation agreement

On Tuesday, October 28, 2025, the successful collaboration of the IRIXYS network was formally renewed and contractually sealed at the University of Passau.

The network now includes the following members: the University of Passau, Institut National des Sciences Appliquées (INSA) de Lyon, Università degli Studi di Milano, Università degli Studi di Milano-Bicocca, and, as a new member, the Deggendorf Institute of Technology (THD).

The president of INSA Lyon, Director Prof. Dr. Frédéric Fotiadu, traveled to Passau for a meeting with University President Prof. Dr. Ulrich Bartosch and Vice President Prof. Dr. Harald Kosch. This visit provided an opportunity to sign a joint agreement with the Vice President for Academic Structures and IT at TH Deggendorf, Prof. Dr. Wolfgang Dorner, which was sealed in the presence of Professor Kosch, members of the university management, and representatives of the member universities.

“This network is particularly fruitful evidence of Vice President Kosch's tireless commitment to international cooperation. It is a great contribution to the German-French bridge between Lyon and Passau,” said University President Prof. Dr. Ulrich Bartosch at the signing ceremony.

“The visit of Prof. Dr. Frédéric Fotiadu from INSA Lyon to Passau marks a joyful milestone in our German-French university cooperation – a meeting that was characterized by mutual trust and a shared vision of the future,” added Vice President Prof. Dr. Harald Kosch.



## 1.2. Consolidation of our academic collaboration

### ➤ *IRIXYS PhD Track*

The “IRIXYS PhD Track” between the University of Passau and INSA Lyon and supported by the French-German University (UFA/DFH) was conceived to stimulate a bi-national academic postgraduate path: from the start of a Master to potentially achieving a PhD. In 2025, many students have undertaken a double Master and one graduate has begun doctoral studies in cotutelle.

In 2025 eleven students from INSA Lyon could come to Passau for the first time to pursue their studies in March. Already nine of the newcomers completed their Master in Passau in 2025, while the two others decided to stay one more semester to fully maximise their experience in Germany. In September 2025 one student from the University of Passau started a PhD Track and began to study at INSA Lyon.

In the frame of the course dedicated to the double-Master students "working as an IT manager in France, Germany/Bavaria", the social bond among the students (new incomings and returning students from Lyon) was maintained and the group spirit was strengthened through several group activities (welcome evening, experience of the local food, Treasure Hunt to discover Passau, meeting with the future double-Master students).



### ➤ *Cotutelle de thèse*

In 2025, the Chair of Distributed Information Systems of the University of Passau counted three students in cotutelle de thèse (PhD in supervision) with INSA Lyon: Ashish Ashutosh, Felix Bötz and Youssef Zyam (who began the cotutelle this year).

In December 2025, two students submitted their work, to defend in 2026.

➤ Double-Master University of Passau and ENSIIE Paris/Evry

In March 2025, the university of Passau welcomed one new double degree student from ENSIIE, joining two other students still studying here. Two students from the University of Passau came back to Germany to finish their study and one was already recruited to start in September 2026.

### 1.3. Consolidation of our scientific collaboration

The IRIXYS members (former MDPS collaboration) have been organising since 2008 biannual workshops hosted and organised in turn by the main partners: the University of Passau, INSA Lyon, and the University of Milan. During the Young Scientists' workshops, each doctoral student presents the progress of their thesis, and the results obtained since the last workshop. All the participants (between 30 and 40 people, researchers and PhD students, from the IRIXYS centre teams, international experts, industrial partners) can thus follow on a regular basis the progress of all the IRIXYS PhD students, analyse the results, suggest new investigation and cooperation.

These research workshops, by their regularity and size, catalyse a strong dynamic among the PhD students and reinforce their motivation to advance rapidly and regularly in their research to be able to present interesting results during their presentations. They thus form a series of milestones for the students, the researchers and professors to structure the progress of their research.

As described in the “IRIXYS Anmeldung Mittelbewirtschaftungsbefugnis 2025”, we aim to give our traditional *Young Scientists' Workshop* a fresh boost, strengthen Bavaria's influence in a European context, and address social issues that are currently highly relevant to European civil society. 1,5 to 2 days of the classic workshop week are dedicated to this, and we invite a broader audience to participate.

We thank once again the Bavarian State Chancellery and the French-German University for supporting financially the organization of these events.

## IRIXYS Young Scientist'Workshops : IT mit Gewissen/ l'informatique responsable

### 1. Schedule overview

2025		2026	
H2		H1	H2
Workshop 1 Passau 02.06.2025-06.06.2025		Workshop 2 Gargnano 06.10.2025-10.10.2025	Workshop 3 Lyon 18.05.2026-22.05.2026
Ethical and legal aspects of AI in Europe		Cybersecurity and geopolitics	Sustainable AI

Both scientific topics (AI, cybersecurity, health, etc.) and ethical, societal, legal, and sustainability issues are addressed. The aim of these events is to facilitate interdisciplinary and multidisciplinary dialogue and to act as a bridge between science and society.

The IRIXYS workshops are organised face-to-face. It is an integral part of the Franco-German-Italian intercultural experience, enabling everyone to dedicate their full attention to the different activities, workshops and meetings and of course it creates a strong group cohesion.

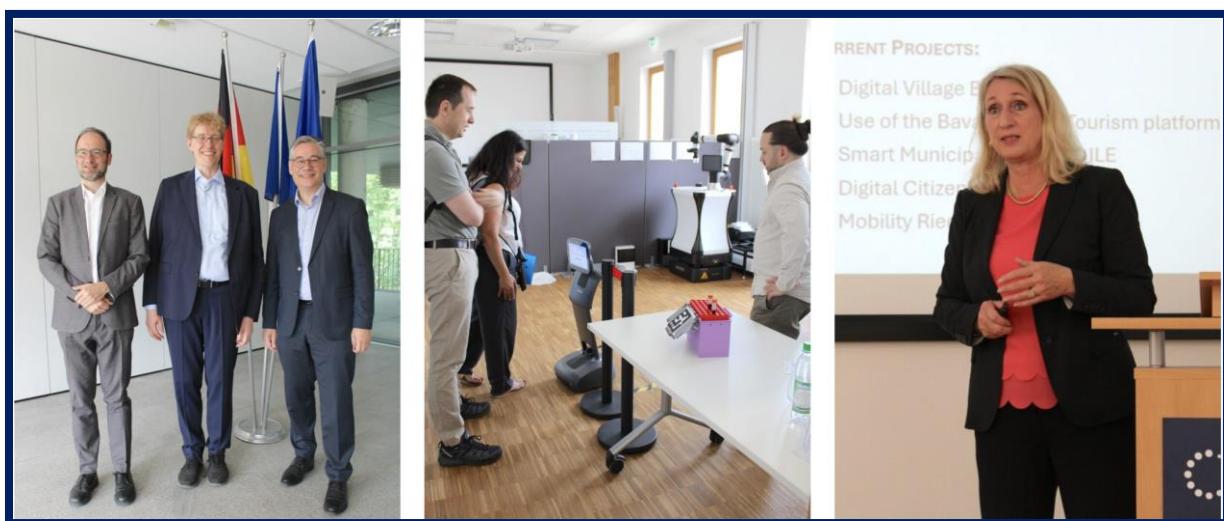
### ➤ IRIXYS Young Scientists' Summer Workshop in Passau

2<sup>nd</sup> – 6<sup>th</sup> June 2025 in Passau

The 34<sup>th</sup> IRIXYS Young Scientists' Workshop was hosted by the University of Passau. Some 35 students and professors from INSA Lyon, University of Passau and University of Milan participated.

The highlight of this workshop was the reception hosted by Alexandre Vulic, the French Consul General. He opened a panel discussion named 'Navigating the EU AI Act: Insights from Legal Experts from Germany and France'. Roland Wossidlo, Martin Pfeil and Michael Endres from Atos, the French IT service provider, shared insights from industrial practice. Prof. Michael Beurskens (University of Passau) then concluded the panel with a presentation in which he critically examined the EU AI Act from a legal perspective, which was followed by a lively discussion with the audience.

Participants also visited the Grafenau Technology Campus, which is under the scientific direction of Prof. Ahrens. There, they explored the interdisciplinary research fields of Smart Region, Business Data Analytics & Optimization, and Applied AI. The campus's projects address the key challenges of digitalization in industry and society, urbanization, and sustainability.



Once again, the IRIXYS series demonstrated the value of international collaboration between academia and industry. 'The IRIXYS workshop is an impressive example of how international cooperation drives innovation, especially at the intersection of science, digitalization and artificial intelligence,' said Prof. Harald Kosch.

Finally, two doctoral candidates successfully completed their PhDs within the program. The entire IRIXYS team warmly congratulated Dr Sebastian Wilhelm and Dr Sahib Julka on this outstanding achievement and wished them every success in their future careers.



#### ➤ *IRIXYS Young Scientists' Winter Workshop in Milano*

6<sup>th</sup> – 10<sup>th</sup> October in Milano

The 35<sup>th</sup> IRIXYS Young Scientists' workshop took place at the University of Milan.

The week was rich in inspiring keynotes addressing a variety of topics, from Artificial Intelligence, environmental responsibility, to Cybersecurity.

Professor Ernesto Damiani (University of Milan) first introduced the MUSA-S2 approach, which focuses on developing technologies and processes for handling large amounts of health and life sciences data for the well-being and health of citizens.

Dr. Monica Vitali (Politecnico di Milano) then presented on "*Designing Sustainable Applications for lower carbon IT*", highlighting the intersection of environmental responsibility and software development.

Another highlight was a talk by Professor Gabriella Pasi (University of Milano-Bicocca) on “*Context Knowledge and Large Language Models*”, exploring how contextual understanding influences the behavior and outcomes of AI systems.



A panel discussion on “*Cyber-Security Perspectives in the Post-Globalization Era*” followed, hosted by Prof. Ernesto Damiani (University of Milan), Claudio Impenna (Bank of Italy), Antonio Pisano (Leonardo: aerospace, defense and security) and Ahmed Alhammadi (CEO, CyberShield). The panelists engaged in a lively dialogue on current cybersecurity perspectives and answered questions from the audience.

Closing remarks concluded the workshop, reflecting on the week's discussions and announcing the next workshop which will take place in June 2026 in Lyon.

As always, the IRIXYS workshop proved to be a dynamic forum for interdisciplinary exchange, innovation and academic networking, solidifying the long-standing partnership between the three universities and highlighting the importance of cross-border collaboration in addressing global cybersecurity challenges.



➤ Other scientific results

The member of IRIXYS participated in several scientific publications, here a sample of the list for 2025:

Sascha Schiegg, Jana Lippl & Harald Kosch (2025): **Einfluss von Struktur, Stress und Sensibilität auf das Privacy Paradox**. Data Protection and Digital Policy in Times of Crisis, 43-48. [\[LINK\]](#)

Ashish Ashutosh, Omar Hasan, Pratik Baishnav, Harald Kosch & Lionel Brunie (2025): **Sticky-PRE: A Sticky Proxy Re-Encryption Protocol for Persistent Vehicle Data Privacy**. 2025 IEEE Intelligent Vehicles Symposium (IV), Cluj-Napoca (Romania), 976-983. [\[LINK\]](#)

Namory Fofana, Wiem Fekih Hassen, Asma Ben Letaifa & Abderrezak Rachedi (2025): **Distributed Task Offloading Using Federated Reinforcement Learning in VEC**. The 21st International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2025), Marrakech (Morocco). [\[LINK\]](#)

Wiem Fekih Hassen (2025): **Intelligent Power Management for Hybrid Energy Storage Clusters in EV Charging Stations**. The 21st International Wireless Communications Mobile Computing Conference (IWCMC 2025), Abu Dhabi (UAE). [\[LINK\]](#)

Pierre-Yves Genest, Pierre-Edouard Portier, Előd Egyed-Zsigmond & Martino Lovisetto (2025): **OWNER — Toward Unsupervised Open-World Named Entity Recognition**. IEEE Access, vol. 13, pp. 50077-50105. [\[LINK\]](#)

Alexis Strappazon, Michael Granitzer, Előd Egyed-Zsigmond, Jelena Mitrovic & Mehdi Ben Amor (2025): **Instruct-to-SPARQL: A text-to-SPARQL dataset for training Wikidata Agents**. ACM SIGIR Conference on Human Information Interaction And Retrieval, 28 March 2025, Melbourne (Australia). [\[LINK\]](#)

Yutong Wang, Diana Nurbakova & Sylvie Calabretto (2025): **Team INSAntive at SlavicNLP-2025 Shared Task: Data Augmentation and Enhancement via Explanations for Persuasion Technique Classification**. Proceedings of the 10th Workshop on Slavic Natural Language Processing 2025 (SlavicNLP 2025), 31 July 2025, Vienna (Austria). [\[LINK\]](#)

Nathan Nowakowski, Lorenzo Calogiuri, Előd Egyed-Zsigmond, Diana Nurbakova, Johan Erbani & Sylvie Calabretto (2025): **GrootWatch at EXIST 2025: Automatic Sexism Detection on Social Networks - Classification of Tweets and Memes**. Working Notes of the Conference and Labs of the Evaluation Forum (CLEF 2025), 12 July 2025, Madrid (Spain). [\[LINK\]](#)

Duaa Baig, Diana Nurbakova, Sylvie Calabretto & Baba Mbaye (2025): **Enhancing Knowledge Tracing with Large Language Models (LLMs)**. Artificial Intelligence in Education. Posters and Late Breaking Results, Workshops and Tutorials, Industry and

Innovation Tracks, Practitioners, Doctoral Consortium, Blue Sky, and WideAIED, 26 July 2025, Palermo (Italy). [\[LINK\]](#)

Brandon Mosqueda González, Omar Hasan & Lionel Brunie (2025): **Mitigation of Sybil-based Poisoning Attacks in Permissionless Decentralized Learning**. 7th IEEE International Conference on Blockchain and Cryptocurrency (ICBC 2025), 6 June 2025, Pisa (Italy), pp. 1-5. [\[LINK\]](#)

Mohamed-Nour Eljadiri & Diana Nurbakova (2025): **Team INSALyon2 at SemEval-2025 Task 10: A Zero-shot Agentic Approach to Text Classification**. Proceedings of the 19th International Workshop on Semantic Evaluation (SemEval-2025), 1 August 2025, Vienna (Austria). [\[LINK\]](#)

Barsotti, A., Gerl, A., Wilhelm, S., Donati, M., Dalmiani, S., & Passino, C. (2025): **The complexity of eHealth architecture: Lessons learned from application use cases**. Computers, 14(9), 371. MDPI. [\[LINK\]](#)

Jakob, D., Schmidt, S., & Wahl, F. (2025): **Planning and installation of 5G campus networks in hospitals in rural areas and possible use cases: A practical example**. Future of Information and Communication Conference (FICC 2025), pp. 684–705. Springer Nature Switzerland. [\[LINK\]](#)

Jakob, D., Wilhelm, S., Gerl, A., & Ahrens, D. (2025): **Adapting voice assistant technology for older adults: A comprehensive study on usability, learning patterns, and acceptance**. Digital, 5(1), 4. MDPI. [\[LINK\]](#)

Lichtenauer, N., Wahl, F., & Wilhelm, S. (2025): **Dissemination von Open Data: Erfahrungen zur Anonymisierung und Weiterverwendung von personenbezogenen Daten – qualitative Ergebnisse einer Expertenbefragung im Projekt EAsyAnon**. 26. Jahrestagung des Netzwerks Evidenzbasierte Medizin e. V. German Medical Science (GMS) Publishing House. [\[LINK\]](#)

Meyer, S., Wilhelm, S., & Wahl, F. (2025): **Assessing human activity in elderly people's homes using the Dempster-Shafer theory**. ITC4AWE 2025 International Conference on Information and Communication Technologies for Ageing Well and e-Health, pp. 291–301. SCITEPRESS – Science and Technology Publications. [\[LINK\]](#)

## 2. Policy and Industry Collaborations

### 2.1. 2.1 UFA/DFH German-French University:

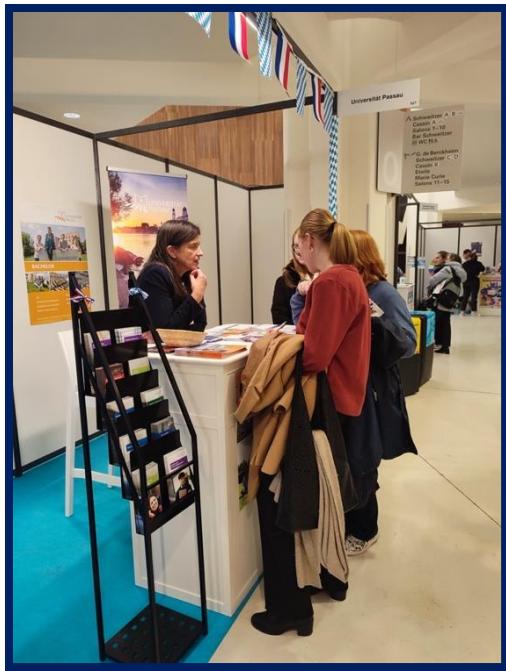
The UFA/DFH Programme Officer Meeting and Assembly of Member Universities 2025 took place for the first time in Passau on May 15<sup>th</sup> and 16<sup>th</sup>. It was an unprecedented but successful challenge for the University of Passau to organize such a big event. Prof. Kosch was of course very invested in this event that he opened himself with a speech.



At this occasion, the participants could exchange about their respective programs, the challenges they are currently facing and how to address them together.

For the University of Passau and IRIXYS, this represents the achievement of the strong French-Bavarian cooperation in Academia.





## 2.2. French-German Forum in Strasbourg

On November 14<sup>th</sup> and 15<sup>th</sup>, the University of Passau participated once again in the French-German Forum in Strasbourg, in which higher education institutions present their study programs. IRIXYS and his French-German double degree programs were advertised by our OFAJ/DFJW volunteer.

## 2.3. Visits to ATOS Business Technology & Innovation Center (BTIC) in Munich

In 2025, IRIXYS organized two visits for Master students at ATOS BTIC in Munich, the main industrial partner of the University of Passau, one on January 24<sup>th</sup> and one on November 28<sup>th</sup>. Around 20 students participated each time. They could attend presentations of different people working at ATOS, discover their activities and discuss internships and jobs possibilities.



## 2.4. Other European Collaborations

### **OFAJ/DFJW volunteer 2025:**

In September 2025, and for 10 months, the IRIXYS team welcomed a **French Volunteer from the “Deutsch-Französisches Jugendwerk”** (DFJW/OFAJ). This programme has been going on since more than 10 years and Passau welcomed 7 generations of young French volunteers, giving them an overview of the French and European cooperation within the chair of Prof. Kosch with hands-on activities. In 2025 the tasks attributed to the volunteers mainly focused on communication (intern and extern), and support for the double degree programs. For instance, she covered the IRIXYS Workshop in Milano with an article and pictures for our website and participated in the French-German Forum.

### **Master MINDS:**

The university of Passau and INSA Lyon, in cooperation with the University of Milan and the Autonomous University of Barcelona, are working to develop an **international master's degree of excellence in AI** funded by the Erasmus + "Joint Master Erasmus Mundus" (EMJM) programme. The Master INtelligent systems for a sustainable Digital transformation of the Society (Master MINDS) aims to provide students with strategic and technical knowledge and skills in the key areas of computer vision and robotics, cybersecurity, distributed systems, AI engineering, to become active players in digital transformation and innovation in public and private organisations.

In 2025, the staff focused on the implementation of the new Master and the Erasmus+ proposal to get the funding for the EMJM.

## 3. Communication

### 3.1. IRIXYS Website

In 2025 we continued to update and share content on IRIXYS. Furthermore, we are monthly monitoring the website to maximize our range and adapt the frequency and content of our posts.

<https://irixys.uni-passau.de>

### 3.2. Picture credits

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