



HammerHAI

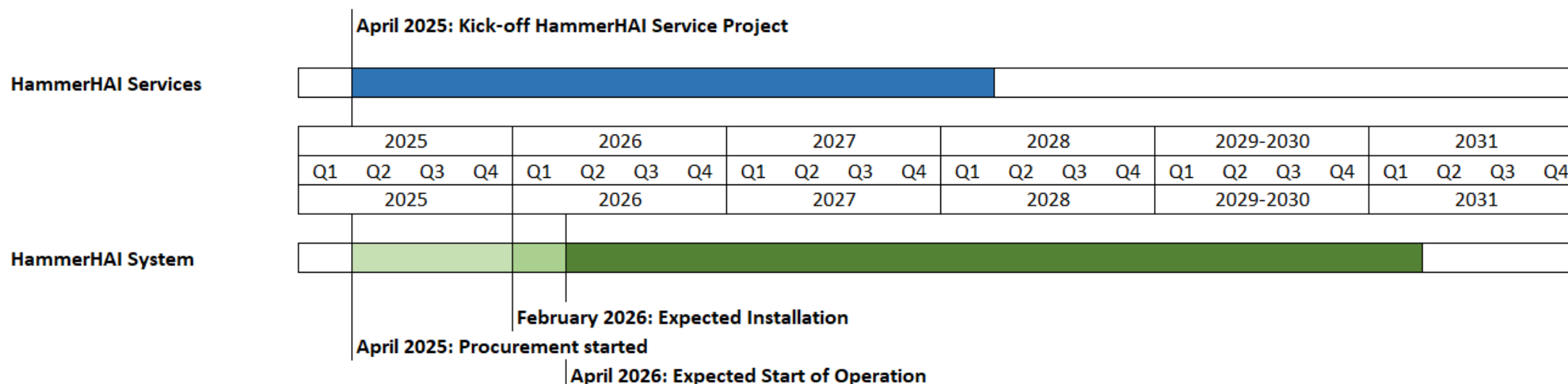
The AI Factory for Industry, Manufacturing, Engineering, and Research

An Introduction to the HammerHAI AI Factory

Bastian Koller, HLRS, koller@hlrs.de

2 Projects, 1 Vision

- A **Cloud-Native AI Factory** in Germany
- Built for **industrial-scale** workflows, **trust**, and **impact**



Background and Expertise

The AI Factory for Industry

- Establishing HammerHAI backed by a **strong consortium**
 - **LRZ** – HPC and AI solutions
 - **GWDG** – Cloud and data expertise
 - **KIT** – Research and innovation leader
 - **SICOS** – Facilitator for Start-ups and SMEs
- Focuses on **start-ups, SMEs, industry, academia, and the public sector**
- HLRS is located in a **leading region for engineering and manufacturing innovation**



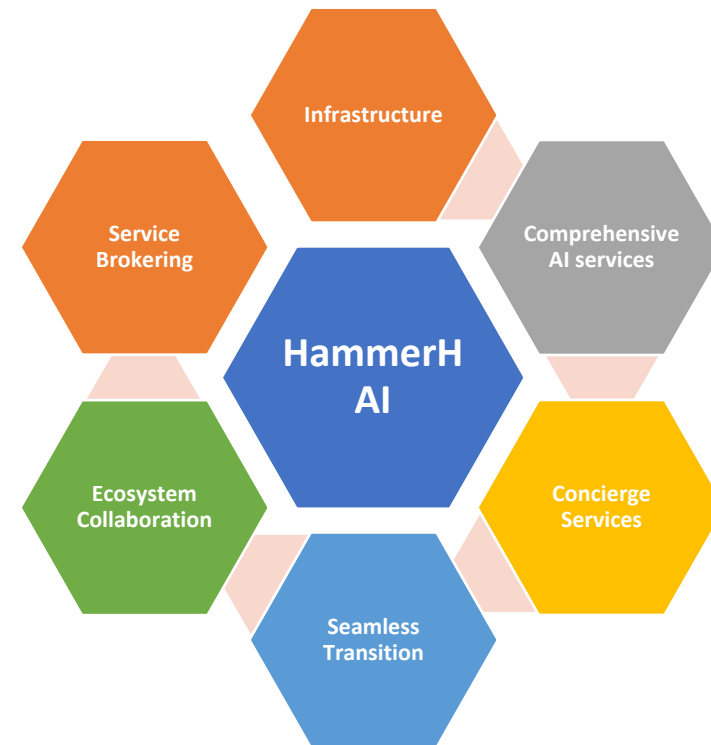
Industrial Expertise

- Services more than **70 industrial customers**
 - Porsche, Trumpf, Festo, ...
- **ISO 27001** and TISAX Level 3 certifications
- User accounting and user helpdesk (HPC/AI)
- **Leadership in European projects** such as EXCELLERAT P2 and FFplus



Our Strategic Differentiators

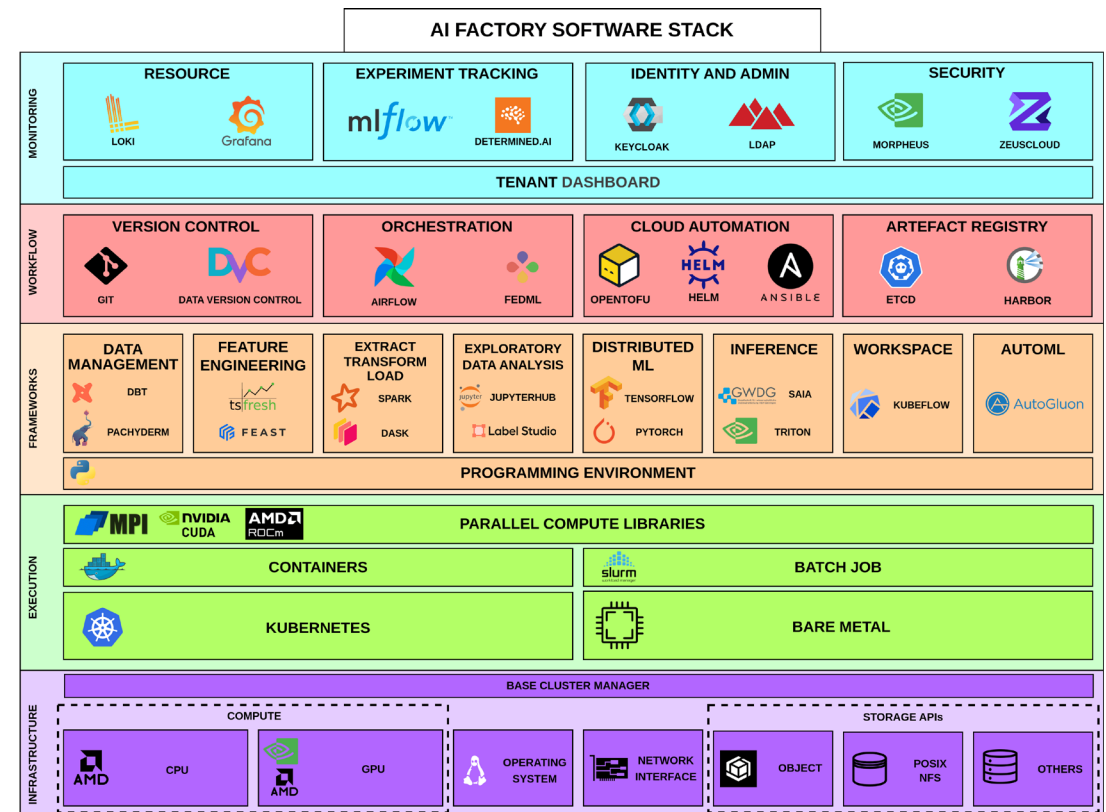
- **No re-invention** of the wheel
- **Make services available** as quickly as possible
- Users drive the evolution through **success stories**



Infrastructure and Services

2-Stage Infrastructure Rollout

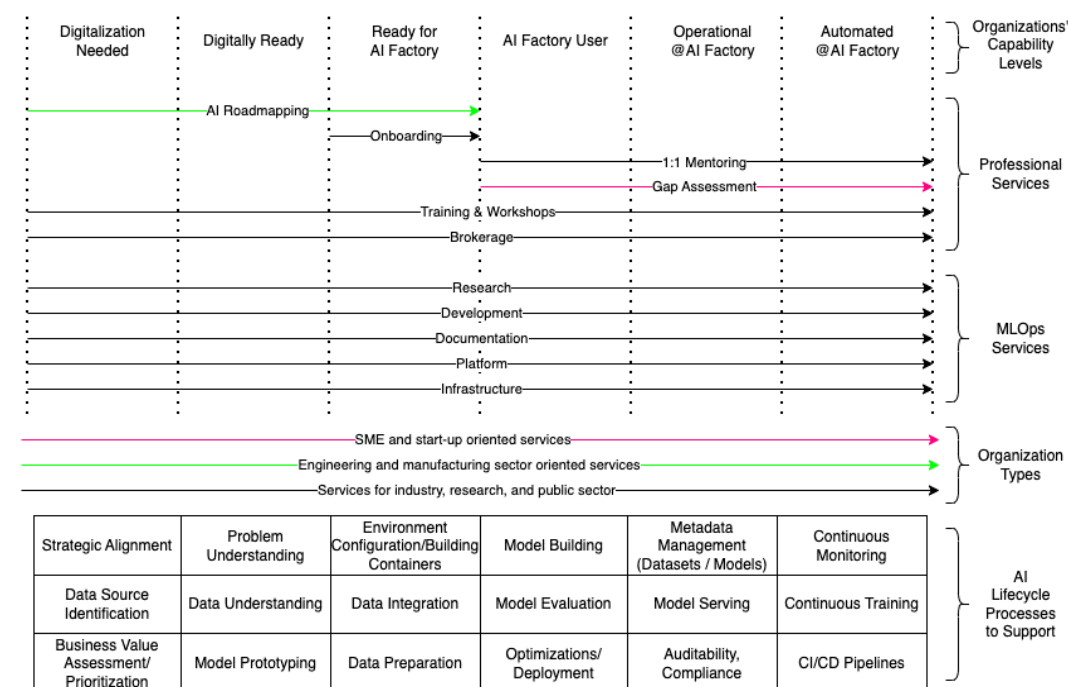
- **Phase 1** (expected in Q1/2026)
 - Attract AI users; operated using a cloud-native software stack with a focus on easing the migration from laptop and cloud to HammerHAI
 - Focus on AI training, fine-tuning and inference workloads
- **Phase 2** (planned for Q1/2027)
 - Large-scale extension of Partition 1 with the latest GPU accelerators; account for the expected increasing computing demands of the targeted stakeholders



Services

User Support Services

- **Tailored user support** throughout the entire AI lifecycle
- Each user gets assigned a dedicated person (“**concierge**”) who accompanies them from onboarding to production:
 - Strategic planning,
 - Defining the scope of your problem, including data understanding and model prototyping,
 - Data integration and preparation,
 - Model building, evaluation, and deployment,
 - Data and metadata management,
 - Monitoring and model updating.



Brokering and Impact

Brokering Model

- Set up a **service brokering** with other AI initiatives and centres both at a regional, national and European level
 - e.g., promoting (co-organised) events of another project
 - e.g., adding external services that ideally make of HammerHAI's infrastructure

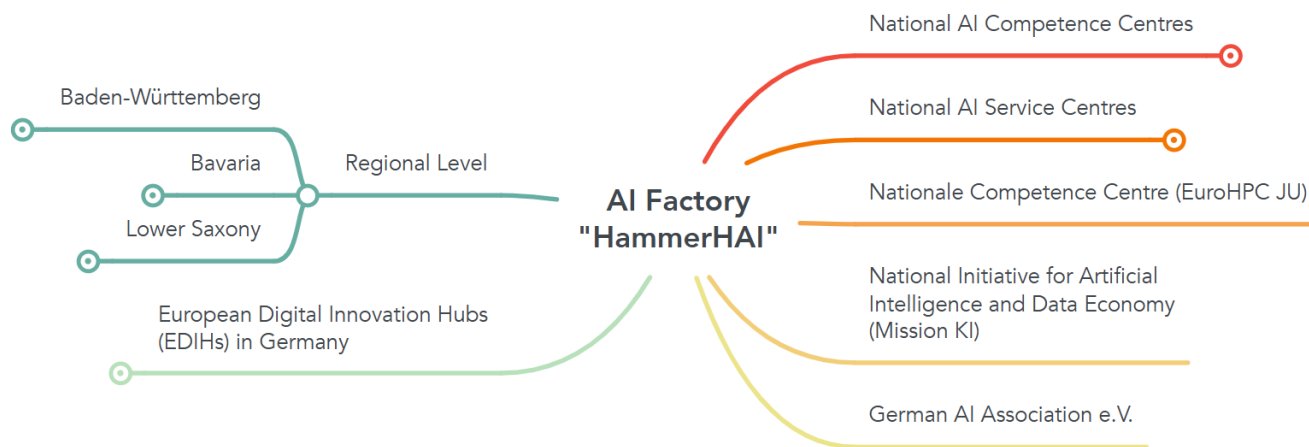


ARENA2036

Seedbo»»x

Embedding with AI Ecosystems

- Embed into the existing **AI ecosystem**
 - Germany already has a **striving and strong national AI ecosystem**
 - Apply the **brokerage model** to leverage existing services and **fill gaps**
- We are **collaborating** with:
 - **regional** initiatives such as KI Allianz BW and ARENA2036;
 - **national** AI service centres (e.g., KISSKI); and leverage
 - the National Competence Centre (NCC) as a **link to Europe**



Interaction with the EuroHPC Ecosystem



The launch of the 2nd FFplus Open Call for Innovation Studies has been rescheduled to December 2025

15. September 2025



FORTISSIMO
PLUS

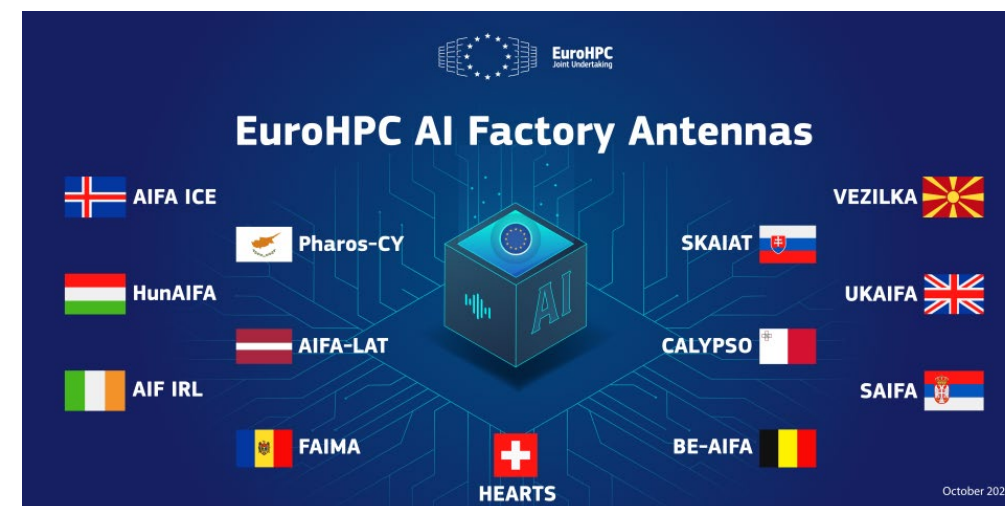
DRIVING SME AND
STARTUP INNOVATION
BY UNLEASHING
THE POTENTIAL OF
HPC AND GENERATIVE AI

23.10.2025



AI Factory Antennas

- Linked with **UKAIFA** coordinated by EPCC:
 - Building on a **20-year partnership** between HLRS and EPCC to lower the barrier to AI adoption for European businesses
 - Jointly developing secure, cross-platform **data sharing** and compatibility
 - Combining HammerHAI's AI computing power with UKAIFA's specialized **industry knowledge**



Data, Data, Data

HammerHAI's AI-Data Facility

- HammerHAI's **data strategy**
 - Simplified access to existing open data sources and AI model repositories
 - Set up a new AI-Data Facility (store and offer AI models and datasets)
- The HammerHAI **AI-Data Facility**
 - Planned to be based on the KI Allianz BW data platform (**piveau**) that already connects cross-sectorial data spaces (production, mobility, smart city, health)
 - HammerHAI builds and extends that platform to become a data facility by itself, e.g.,
 - Standardized metadata (**DCAT**) for compliance with data spaces and FAIR principles
 - Integration with Industrial Data Space (**IDS**) protocols and connectors for secure access negotiation
- Ensure secure, compliant data management for industrial users

Towards Data Labs

- Coordination of the **Manufacturing Data Lab**
- Key AI and Data **Topics**
 - AI-Ready Data along Product Lifecycle: Brain++, LUMI
 - Synthetic & Simulated Data: Pharos, HammerHAI
 - Foundation Models for Manufacturing: JAIF, AI:AT
 - Agentic & Autonomous AI: AI:AT, IT4LIA
 - AI-Driven Process Automation: HammerHAI, Pharos
- Stakeholder **Workshop** (started in September)
 - Unlocking short-term data ecosystem changes via AI Factories and Data Lab Services
 - Raising awareness of AI Factory capabilities
 - Emphasizing real-world opportunities
- Engagement support by **BDVA**

Visibility

HammerHAI reposted this

Henna Virkkunen Executive Vice-President for Tech Sovereignty, Security and Democracy

We had a great visit to Germany today as part of my AI Factories tour!

I visited the HammerHAI AI Factory in Stuttgart, one of the two AI Factories in Germany. HammerHAI is located in the High Performance Computing Centre founded back in 1996. It was interesting to hear about their expertise and experience in the field of high-performance computing.

The Centre in Stuttgart has built and deployed their small and medium-size user support ecosystem. I also got to know more about the Innovation Park Artificial Intelligence and Cyber Valley in the state of Baden-Württemberg. They are both major hubs for European AI innovation.

The Commission is currently funding together with Member States the establishment of 13 AI Factories around Europe.

I also had a chance to explore and discuss autonomous vehicles and have a test drive with the autonomous CoCar on the test field in Karlsruhe. Technology provides many opportunities for safer and cleaner transportation. We are currently creating a European Connected and Autonomous Vehicle Alliance to support innovations in this sector.



Bastian Köller and 384 others 10 comments · 10 reposts



Wie in Stuttgart Höchstleistungs-KI für Forschung und Wirtschaft entwickelt wird

Stand: 11.12.2024, 17:13 Uhr
Von Kerstin Rudol, Maxim Fildner

Tellen:

Wirtschaft und Forschung sollen besseren Zugang zu Künstlicher Intelligenz erhalten. Dafür fördert die EU den Aufbau einer sogenannten KI-Fabrik an der Universität Stuttgart.

Am Höchstleistungsrechenzentrum der Universität Stuttgart (HLRS) soll ein Standort für eine neue, für KI-Anwendungen optimierte Supercomputing-Infrastruktur aufgebaut werden. Dies gab die grün-schwarze Landesregierung Baden-Württemberg am Dienstag bekannt.



Künstliche Intelligenz

Stuttgart soll als Inkubator für EU-Gigafactory dienen

EU-Kommissionsvizepräsidentin Virkkunen besuchte am Montag das Höchstleistungsrechenzentrum Stuttgart (HLRS). Dort präsentierten die Schwarz-Gruppe und das Rechenzentrum ihre Gigafactory-Pläne.

Luise Bomke
07.07.2024, 23:37 Uhr

Artikel anhören 06:02



Besuch von Henna Virkkunen (l. v. l.) in Stuttgart: Die Vertreter des HLRS und von Seebock AI werben für den Standort. Foto: EC / Justus-Liebig-Universität

Stuttgart. Im Höchstleistungsrechenzentrum Stuttgart (HLRS) hat sich am Montag das „AI Länd“ versammelt - so nennt Baden-Württemberg seine gemeinsamen KI-Bemühungen. Anlass war der Besuch von EU-Vizekommissionspräsidentin Henna Virkkunen. Ihr Aufenthalt in Stuttgart war einer von 13 Stopps auf ihrer Tour zu den sogenannten AI Factories, die im Rahmen des europäischen KI-Aktionsplans entstehen.

Die Initiative soll Start-ups, Unternehmen und Forschungseinrichtungen besser mit Rechenkapazität, Daten und Talenten versorgen. Für die baden-württembergische Hauptstadt kam der Besuch zur rechten Zeit: Die Schwarz-

HammerHAI

Germany's AI Factory for Manufacturing, Engineering, and Research

Artificial intelligence offers new opportunities for innovation and discovery. Whether you work in industry, in an SME or startup, or in academic research, HammerHAI can provide access to the hardware, tools, and expertise you need to develop new and more powerful AI applications and services.

[Get Started](#)

<https://kafkalm.com/>

Resources & Solutions

23.10.2025

HPC Roundtable, Munich



[linkedin.com/company/hammerhai](https://www.linkedin.com/company/hammerhai)

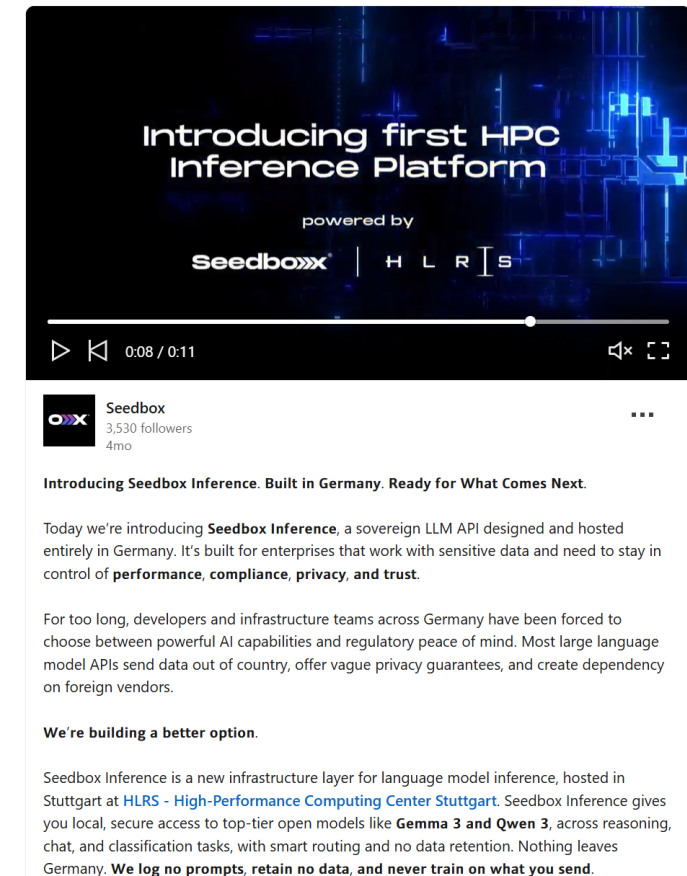
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Key Achievements

- Early **launch of services** (e.g., training, workshops, user onboarding, webinars)
- **Onboarding** and prototyping with several (industrial) users (e.g., Bosch, ARENA2036)
- Early access to a secure, industry-focused **inference platform** (hosted on existing infrastructure at HLRS)
- Comprehensive **communication strategy** developed with more than 30 activities since the launch in April and attracted 600 followers on LinkedIn





Thank you!

This project has received funding from the European High Performance Computing Joint Undertaking under grant agreement No. 101234027. This project is co-funded by the European Commission, the German Federal Ministry of Research, Technology and Space (BMFTR), the Baden-Württemberg Ministry of Science, Research and the Arts, the Bavarian State Ministry of Science and the Arts and the Lower Saxony Ministry of Science and Culture.

