

From Lab to Lecture: Applied research in European digital innovation hubs

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Algebra University is a partner in two European Digital Innovation Hubs (EDIHs) that position applied research at the core of regional innovation: CROBOHUB++, focused on AI, cybersecurity and high-performance computing across industry and public administration, and AI4Health.Cro, focused on AI for smart healthcare and medicine. CROBOHUB++ offers test-before-invest services, skills development, access to finance and ecosystem networking to SMEs, farms and public bodies, with a mission to raise digital maturity and support green transition in manufacturing, agriculture, energy, environment and public administration. AI4Health.Cro provides innovators with opportunities to test AI solutions in clinical settings, access specialised training, connect to European healthtech networks and investors, and co-develop case studies in real healthcare workflows.

Our contribution presents how these hubs operate as applied research infrastructures embedded in a university of applied sciences, and how this reshapes both innovation practice and education. On the innovation side, EDIHs function as living labs where Algebra's researchers co-design experimentation protocols, data pipelines and evaluation frameworks together with SMEs, hospitals and public bodies. Pilot projects range from AI-based decision support industry and digital twins in public services to clinical AI pilots and workflow tools in healthcare. This work demands not only technical excellence but also hands-on work on regulation, interoperability, organisational change and user acceptance, making applied research a genuinely multidisciplinary endeavour.

On the educational side, EDIH activities are feeding back into our curricula and teaching practices. We engage students via challenge-based modules in real EDIH pilots, students contribute to feasibility studies, benchmarks and proof-of-concepts, and professionals who attend EDIH rainings provide continuous feedback on skill gaps. This helps us to innovate course content on trustworthy and regulated AI, human-technology collaboration, and sector-specific data governance. Working in EDIHs also changes academic roles: researchers act simultaneously as engineers, consultants, trainers and brokers between ecosystems.

We will share concrete examples, benefits and tensions of this model: how to balance experimentation with service delivery, how to manage expectations of SMEs and hospitals, and how to protect time for reflection and publication. We argue that EDIHs can be powerful vehicles for applied research that simultaneously drive innovation in industry and public services and trigger deep pedagogical and organisational innovation within universities of applied sciences.