



The winning student team of Deep Dive 2024, where student teams compete to solve commercialization challenges of research groups about to spin off. Source: Archive A.H.

WHY THE CURRENT SYSTEM OF RESEARCH COMMERCIALIZATION FAILS – AND WHAT TO DO ABOUT IT

Europe is undergoing a profound economic and geopolitical transformation, confronting questions of sovereignty, productivity, and sustainable growth. Crises like the pandemic, supply chain disruptions, the energy crunch, and rising global tensions have shaken our foundations and forced a re-evaluation of key systems. Yet amid all this talk of resilience and competitiveness, one critical enabler of our future prosperity remains conspicuously absent: research commercialization.

The ability to turn scientific breakthroughs into real-world impact will determine whether Europe emerges from this transition stronger or slips into global irrelevance. Our current system is failing to deliver. High-quality research remains unused, talent is draining away, and Europe lags behind. Rather than asking how to fix the existing setup, we must consider whether it's time to fundamentally rethink it. The question we should be asking is not just how to improve research commercialization but whether the current system is outdated.

HOW DID WE GET HERE? UNDERSTANDING OUR BORROWED SYSTEM

Has anyone actually stopped to question how our current approach to research commercialization came to be? The dominant model, where universities own inventions and intellectual property (IP) of academic staff, and technology transfer offices (TTOs) are the ones in charge of deciding about commercialization, was largely adopted from the United States. The Bayh-Dole Act of 1980 allowed American universities to commercialize federally funded research by granting them IP ownership. The logic was simple and well-meant: if universities controlled the IP, they would take on the responsibility of getting it to market, avoiding the liability of a single inventor being a barrier in a breakthrough benefiting society.

This model was exported worldwide, including to Europe, despite our fundamentally different structures and values. And here's the real paradox: [even the world's leading TTOs, including those in the US, acknowledge that the system is broken.](#) The system is not working well anywhere, and should be restructured to optimize for societal benefit. We should see this as an opportunity. Not to tweak a failing system, but to build a better one from the ground up, suited to European strengths and priorities.

The situation takes even weirder turns, when we fit a borrowed model onto European institutions. Our

state aid laws, which are designed to prevent public funds from distorting the market, often create contradictions when applied to the US-based model of research commercialization. A system originally designed to facilitate innovation ends up obstructing it.

Rather than trying to force together mismatched policies, we should be designing a first-principles approach to commercialization—one that aligns with European values, strengthens our welfare state, and maximizes societal benefit.

EUROPE'S STRENGTHS: THE SCIENCE POWERHOUSE THAT FAILS TO DELIVER

Let's acknowledge what we do have going for us:

- [Europe leads the US and China in science and engineering article output.](#)
- [European citizens overwhelmingly support science as a driver of progress and wellbeing.](#)
- We have world-class education and research institutions, and a culture that values long-term scientific progress.

But here lies the bottleneck: [95% of European patents remain unused.](#) Of course patents are just one proxy, but an important one. These are technologies vetted by experts and in the case of universities backed by public funding, yet they never make it into society.

If we are serious about European competitiveness, this is the hidden opportunity we should be seizing.



The 2024 MIMIR Fellows batch. MIMIR Fellows is a 6-month education program to equip 12 students with the skills and tools to be able to contribute to research commercialization. Source: Archive A.H.

A NEW MODEL FOR EUROPE: RESEARCH COMMERCIALIZATION AS THE BLACK HORSE

If we can make Europe the best place in the world for bringing science into society, we will win the global talent competition, solve critical global challenges, as well as drive economic growth and sovereignty.

We already see this happening on a small scale. If you want to work at a top quantum computing company today, you have to consider Finland because of IQM. Category-defining deep tech companies create gravitational pull for talent. If we scale this across multiple fields, Europe becomes the global center of breakthrough innovation.

To create a research commercialization system that works, we need to address:

Culture: Making Commercialization Integral for Scientific Impact

- Scientists should see commercialization as part of their impact toolkit, not as a distraction from basic research.
- The relationship between academia and entrepreneurship must be seen as complementary. Great commercialization requires excellent basic research.
- We must educate the masses to appreciate research commercialization, and to realize its complexity and importance.

Structures: Rethinking Funding, Incentives, and Legal Barriers

- In Finland, we invest over €200K per student in their education with the assumption that they will work, pay taxes, and contribute to the economy. Yet when research-based inventions could generate companies that create jobs and economic returns, we suddenly worry about state aid laws and privatizing taxpayer money. This is a contradiction we need to resolve.
- TTOs need new funding models. Universities in many countries lack funding for commercialization activities, forcing them to extract harsh ownership

terms. We cannot fully blame universities for bad term sheets when they are forced into short-term revenue extraction.

- Academic career paths must encourage commercialization. Scientists should not have to abandon research to become entrepreneurs. We need pathways where top researchers can stay in academia while actively commercializing their work.

Team Formation: Building Winning Teams

- Building a strong spinout team is one of the hardest challenges. Academic silos and institutional barriers make it even harder.
- We need to encourage encounters between scientists and entrepreneurs, highlighting their shared mission and complementary skill sets. Without this, promising technologies will never reach the market.

A BRIGHTER FUTURE

Europe is already the region that produces the best science. Imagine if we were also the easiest, most efficient place to bring that science into real-world solutions.

And we can make the case for it in Europe. The rest of the world cannot.

This is not a theoretical exercise. We are actively working on policy changes and grassroots programs to shift the culture around research commercialization, using university students as the catalysts for change. We are already engaged with the OECD and the European Commission on these issues, but we need a broad, cross-sector, and cross-ministry dialogue to kickstart the new system. And we need it fast.

If you are working on this problem, whatever your sector or discipline, please reach out. We need to do this together, as a European effort.

Let's make this happen!

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