

# Clusters are the hidden engines of Europe's green and digital transition

*At the Clusters Meet Regions event in Eindhoven, ECCP's Jan -Philipp Kramer explained how cluster organizations drive competitiveness, innovation, and resilience - especially in regions like North Brabant.*

Why do cluster organizations matter? Because they make regions more competitive, accelerate innovation, and are essential in Europe's green and digital transformation. That was Jan -Philipp Kramer's key message during his keynote at the Clusters Meet Region s event in Eindhoven. Kramer is a [European Cluster Collaboration Platform](#) (ECCP) member and a Partner at the research -based consultancy Prognos AG. Armed with data and insights, Kramer made a compelling case for the strategic importance of clusters, especially in powerhouse regions like North Brabant.

## A competitive region

To set the stage, Kramer offered a snapshot of North Brabant's economic profile. "With a GDP per capita of over €52,000 - well above the EU average of €38,000 - and accounting for 20% of the Netherlands' exports with just 14% of the population, this region clearly punches above its weight," he said.

The high -tech sector is a major driver of that strength. Between 2015 and 2021, the region's high -tech exports doubled from €14 billion to €28 billion, thanks to its specialization in fields like photonics, robotics, semiconductors, and advanced manufacturing. "That kind of growth doesn't happen by chance," Kramer noted. "It's rooted in concentrated expertise and innovation capacity." The fact that the province is ranked number 4 in the Regional Innovation Scoreboard is proof of this.

## Innovation, IP, and endogenous potential

Kramer emphasized that cluster development is not about importing solutions but unlocking endogenous potential: leveraging local strengths, talent, and resources. North Brabant's innovation credentials back this up: its performance on the [EU Regional Innovation Scoreboard](#) is high, particularly in intellectual property (IP) creation. "From patents to trademarks and design rights, this region has built an end -to-end innovation pipeline that goes from lab to market to protection," he said.

Yet, there's always room to grow. "If I had to point out one area for improvement," Kramer added diplomatically, "it would be in international scientific co -publications. That's where stronger links to global knowledge networks can make a difference."

## Clusters as Orchestrators of Change

Kramer then shifted focus to what he came to Eindhoven to talk about: clusters. Currently, 32 cluster organizations from the Netherlands are registered on the ECCP platform; nine of them are based in North Brabant. These represent key industrial ecosystems such as health, agri -food, energy -intensive industries, electronics, and digital technologies.

"These organizations are not just symbolic. They have real leverage," Kramer explained. "They connect companies with research institutions and policymakers. They facilitate

internationalization and knowledge diffusion into industry. In short, they orchestrate change.”

He stressed that strong clusters require both capable internal teams - cluster managers, ecosystem designers - and a solid membership base that spans industry and academia. “And that’s exactly what we see here: mid-sized and large clusters with broad networks and active partnerships,” he added.

### **Why Clusters Drive Competitiveness**

Kramer presented fresh findings, some of them from the recent EU Cluster Panorama Report 2024, showing strong correlations between cluster presence and regional competitiveness indicators. “The clearest link is with business R&D investment,” he said. “Where clusters are active, companies invest more in research and development. We also see positive correlations with startup activity and the availability of skilled human resources in science and tech.”

He continued: “Even metrics like GDP per capita and labor productivity tend to be higher in regions with robust cluster ecosystems. These are not just feel-good organizations; they deliver measurable economic value.”

### **Accelerating the twin transition**

In the context of the ‘twin transition’ - green and digital - Kramer highlighted the specific roles clusters can play. On the digital side, indicators like ICT share in gross value added and digital patenting strongly link to cluster activity. For green readiness, clusters help shape industrial strategies and foster cross-sector collaboration, especially around energy transition, raw materials, circularity, and climate resilience.

“These complex societal challenges require systems thinking and collaboration. Cluster organizations are uniquely positioned to connect industry, science, and policy,” Kramer said.

### **Internationalization and the Single Market**

Cluster organizations also serve as bridges to international markets. Kramer cited ECCP programs like *European Cluster Partnerships for Internationalisation (ECP4i)* and *Euroclusters*, which fund cross-border and cross-sector projects. “SMEs that are part of clusters tend to export more successfully than those that are not,” he noted.

North Brabant, again, is active here too: “Ten cluster participations in 17 Eurocluster projects show this region is a leader in cross-European collaboration,” he added, mentioning topics ranging from semiconductors to sports innovation.

### **Smart specialization**

Kramer concluded with a nod to *Smart Specialization Strategies (S3)*, which emphasize co-creating regional innovation policies with industry. “Cluster organizations are the ideal vehicles to implement these strategies because they understand both the market and the science,” he said.

In North Brabant, the current smart specialization themes - energy transition, food systems, circular economy, health, AI - are all areas where local clusters are actively engaged. “This alignment between policy and practice is what drives transformation.”

Clusters are more than a buzzword, Kramer said in closing. “They are the connective tissue in Europe’s innovation and competitiveness story. If we want to lead in the green and digital transition, we need strong, well-supported clusters at the center of the strategy.”