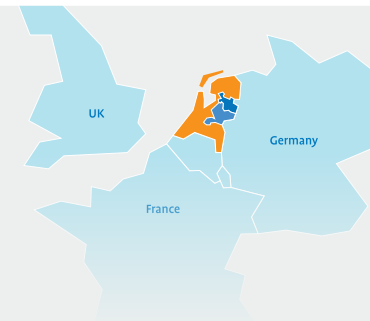




**Composites
&
Polymers**

Advanced materials & manufacturing

East Netherlands offers the world's richest and most accessible advanced materials production technology ecosystem, enabling industrial scale-up of new businesses and markets. It has a vibrant business investment infrastructure, world-class knowledge institutes, open innovation facilities and a culture of international cooperation, creativity and high precision. The East NL advanced materials & manufacturing ecosystem helps your company to become more efficient, flexible and sustainable.



**East Netherlands:
Embedded in a strong
Dutch ecosystem of
composites.**

TPRC – Thermoplastic composites Research Center
“Thermoplastic materials and processes enable us to reduce weight and cost of aircraft components, and enable produce composite components at very high production rate, allowing designers to explore new application previously dominated by metallic components. I would describe TP research conducted at TPRC as World Class. Boeing’s collaboration with TPRC researchers (included University of Twente, University of Delft and our Key suppliers Fokker, TenCate, DTC, KVE, others) resulted in new generation of materials and process driving new applications for Boeing products.”

Dr. Alex Rubin
Senior Technical Fellow
Boeing Research & Technology

Business climate

The strength of East Netherlands is the thriving ecosystem of business infrastructure and technological architecture. Here you will find the largest concentration of composites-related business in the nation. Established composites companies in the region are eager for value-added collaboration with you. These companies offer technology platforms for shared research and development, as well as product development consortia to assist in product launch.

Markets

Aerospace, industrial manufacturing automotive, building & construction, wind & energy, membranes, maritime, machinery.

Companies

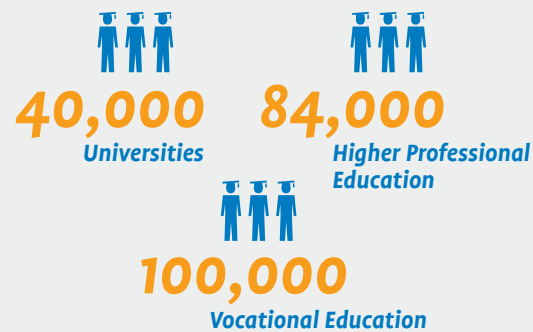
Ten Cate Advanced Composites, Teijin Aramid, Akzo Nobel, Aeronamic, Reden, Dutch Shape, Aniform, Demcon, Thales, Fiberneering, Bond, Enrichment Technology, DSM, CATO, Aliancys among many others.

Knowledge institutes

University of Twente, Saxion, Windesheim, HAN, Fraunhofer, TPRC (TPAC pilot plants, TRL levels), NLR.

Top talent

Thanks to a broad business and knowledge base, East Netherlands has extensive expertise in industrial manufacturing, as well as world-class knowledge institutes that educate new talent. The universities and higher professional education institutes in the Netherlands strongly support relevant scientific studies that are closely linked to this growing market.



Number of students, East Netherlands

source: CBS, 2017/2018

New technologies

The business infrastructure supports a thriving technological architecture. Key Enabling Technologies (KETs) targeted by the EU and Dutch government for investment and development:

- Advanced materials
- Advanced manufacturing technologies
- Nanotechnology
- Photonics
- Micro and nanoelectronics
- Industrial biotechnology

Regional expertise in composites:

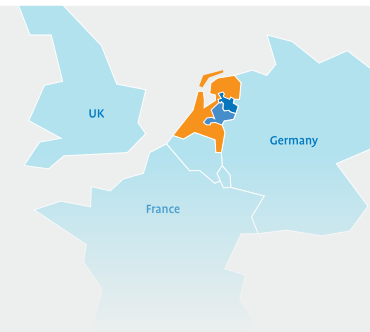
thermoset composites, thermoplastic composites, polymer chemicals, aramid-fibers, carbon fibers, recycling etc.

East Netherlands is a region of living technology, making real-life testing of new composites technology possible. From lab testing to open test space, to public use and acceptance.



Composites
&
Polymers

Oost NL has partnered with over **875** companies for success in Europe



Infrastructure

East Netherlands has a relatively high concentration of knowledge in composites, production and high precision. It also has a high quality existing industrial infrastructure. Examples are production plants for materials and products with room for expansion, but with low m² prices compared to the rest of the Netherlands.

Open Innovation Centers/research partners

- MESA+ and High Tech Factory for innovations in nano materials
- TPRC - thermoplastic composites research center (Enschede)
- TPAC - thermoplastics composites application center (Enschede)
- Fraunhofer Project Center - Institute for Production Technology (Enschede)
- Polymer Campus - polymers, fibers and resins (Zwolle)
- OICAM - Advanced Materials (Nijverdal)

Locations / business incubation

- Technology Base Twente - industrialization of thermoplastic composites (Enschede)
- Kennispark Business & Science Park (Enschede)
- Polymer Campus (Zwolle)
- High Tech Systems Park (Hengelo)



Funding

Innovation in advanced materials is one of the funding priorities within the European Union (EU). These funds are also an important vehicle to connect our composites ecosystem to other important hot spots in Europe. The EU has made significant investments in advanced materials in recent years, and remains the largest investor in the technology, leading the US and Asia.

80 billion
€ budget for cooperation in R&D through EU Horizon 2020 program

As an official partner of the Dutch and EU governments, Oost NL is a qualified intermediary in helping you to access EU, national and regional funding.

255 million
€ regional participation fund

100 million
innovation grants & incentives



Business support

Oost NL is your partner in connecting international companies to business communities in the composites business.

Novel-T offers startups (New) and innovative entrepreneurs (Next) access to a dynamic ecosystem.

SMB Facilities & Support boosts open innovation together with coaching and support of start-ups and SMEs.

Spin-offs

Proof of a ripe and ready market is the large number of successful composites spin-offs in the region East Netherlands.

- Fiberneering
- Parthian /DEON
- Bond BV
- CATO

#2 Most innovative country in the world

Global Innovation Index (GII) 2018

Oost NL - Your support for success in business

Oost NL is the economic development agency for East Netherlands. We have access to resources - funding, business partners and infrastructure, technological architecture and research partners - to help you succeed in establishing and growing your European business. If your strategic vision is global growth through European business development, Oost NL is your partner for success.

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