

# 10 Reasons

Why West  
Holland is the  
Hotspot for  
Composites



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page and  
explore!

**Innovation  
Quarter**

*invest &  
innovate in  
West Holland*

# 10 Reasons why West Holland is the Hotspot for Composites

West Holland is home to a unique Composites & New Materials cluster. It includes the complete chain of academic knowledge & research, application development and original equipment manufacturers (OEM's) combined with a wide range of component suppliers to industries like aerospace, maritime, automotive, machine construction, infrastructure, building & construction. We present our top 10 reasons to invest in the West Holland region.

## TALENT & KNOWLEDGE



### 1 ACCESS TO TALENT

250 researchers from 5 faculties at TU Delft and InHolland:

- Aerospace Engineering
- Mechanical, Maritime and Materials Engineering
- Industrial Design Engineering
- Civil Engineering and Geosciences
- Architecture and the Built Environment



Total number of students for studies related to composites

Delft University of Technology (TU Delft)

**12,800**

InHolland University of Applied Sciences

**3,130**

### 2 RESEARCH & INNOVATION

**TU Delft, Faculty of Aerospace Engineering / Novel Aerospace Materials Group**

Self-healing composites, smart composites and coatings, nano-structured polymers and metals by design, bio composites



**InHolland Composites**

Smart manufacturing, improving safety and health conditions, biobased use of natural materials



### 3 AREAS OF TOP EXPERTISE

Our universities, institutes and companies are front runners in the fields of:

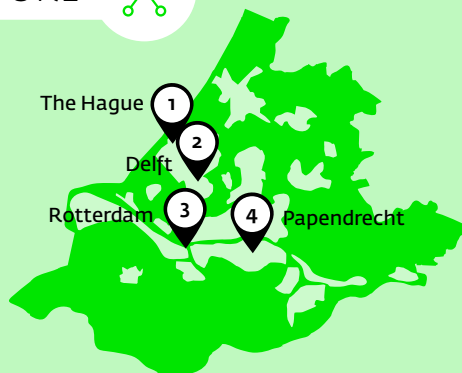
- Advanced hybrid materials/FML
- Thermoplastic Composites
- Large Scale and Automated Manufacturing
- Structural Integrity and Composites
- Shape Memory Composites
- Self-healing Materials
- Bonding and Welding of Composites
- Next Generation Composite Materials

## EXCELLENT INFRASTRUCTURE



### 4 INNOVATION HOTSPOTS

- The Hague:** Business Park Ypenburg (Industrial R&D and manufacturing)
- Delft:** TU Delft Campus, tech incubator YES!Delft and InHolland Composites
- Rotterdam:** Erasmus Centre for Entrepreneurship (ECE) and maritime innovation hotspot RDM Rotterdam
- Papendrecht:** GKN/Fokker aircraft parts manufacturing site



## 5 FACILITIES

### The Hague, facilities at Tech Cluster Ypenburg

- Large Autoclave
- Large scale CNC milling
- Various test equipment
- Automation & Digitization lab
- Office and production space



### Delft

- Aerospace Structures and Materials Laboratory
- InHolland Composites / Laboratory
- Chemical Laboratory
- Material Physics lab
- 11 Wind tunnels



## 6 COMPOSITES FIELDLABS

### Smart Advanced Manufacturing XL

- R&D facility (2,000 m<sup>2</sup>) for automated composite technology solutions
- Focus on both thin-walled aerospace structures and thick-walled structures for wind turbine blades, bridge decks
- Digital backbone including ROS industrial open-source software



### Digital Factory for Composites

- Custom made automation and digitization solutions for composite production
- Industrial training programme for digital manufacturing
- Open office space and composite event centre

## BUSINESS OPPORTUNITIES



## 7 LEADING COMPANIES



## 8 STARTUPS



### MOCS/Codure

composite fittings for pressurised cured-in-place pipes



### Bolt Mobility

scratch and impact resistant glass fiber app-scooter



### CarbonX

isotropic lightweight, reinforced and electrically active composites



### Curve Woks

affordable small-series composite products using unique adaptive mould

## 9 ECOSYSTEM FOR POTENTIAL APPLICATIONS



## 10 SUCCES STORIES



### Fokker / TU Delft

GLARE/FML on largest passenger airplane in the world: A380



### InfraCore

FRP in heavy traffic bridges and large lock gates



### Airborne

industrialisation of composites

# West Holland, the Hotspot for Composites

## Gateway to Europe

The West Holland region has been the birthplace of the development and valorisation of world renowned composite materials for the aviation, space and wind energy industries as well as applications in infrastructure, constructions and consumer goods. A relative new step in the development is the regional focus on digital and automated production. Because of the strong knowledge base at research institutes, a lot of new startups arise in this unique delta region. These new companies are actively taken advantage of the many verticals the region offers, like maritime, offshore and logistics. This unique ecosystem makes West Holland an appealing location for international composite companies.



*InnovationQuarter is the regional economic development agency for the West Holland region in the Netherlands. We provide free assistance and advice to international companies looking to locate in West Holland. In addition, we facilitate co-operation between companies, academic institutions and government. Moreover, InnovationQuarter funds innovative and fast-growing businesses in the region.*

### WEST HOLLAND OFFERS YOU

- A strategic location in the heart of Europe
- State-of-the-art business, research and incubation facilities
- Highly educated and multilingual workforce
- Superior logistics infrastructure
- Excellent quality of life
- A competitive tax climate
- Advantageous tax incentives for R&D activities



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