



Changing the nature
of chemistry

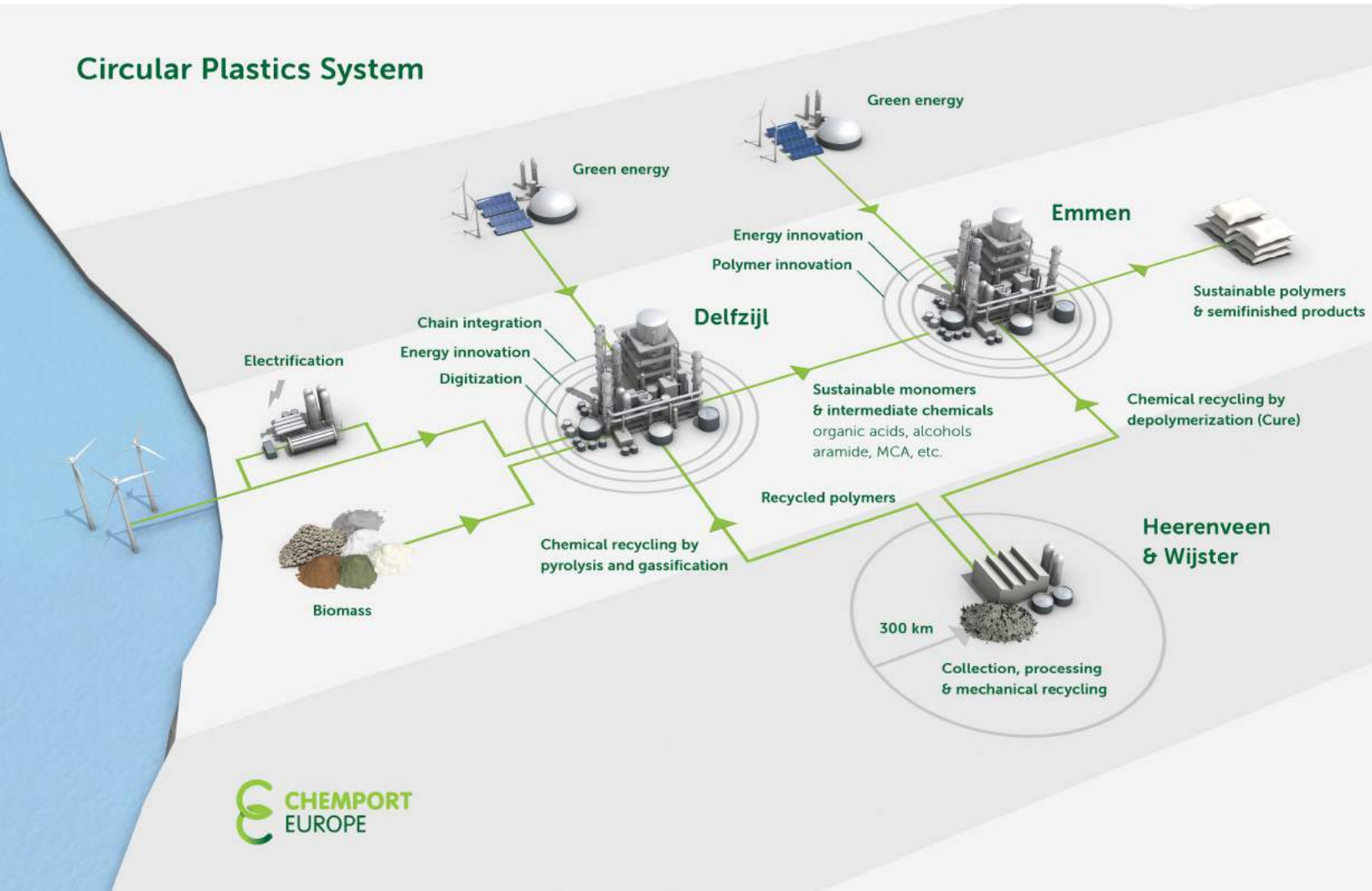
We make the **Circular Plastics System Work!**

Circular plastics is one of the focus areas at Chemport Europe

Chemport is the name of the chemical production and development ecosystem, located in the northern part of the Netherlands



Circular Plastics System



Circular polymers are a key element in the comprehensive Chemport ecosystem

Together we actively work on



CONVERTING RECYCLED
PLASTIC INTO QUALITY
FEEDSTOCK



MAKING PRODUCTS FROM
QUALITY FEEDSTOCK



RECOVERING AND
RECYCLING ALL KINDS
OF PLASTICS



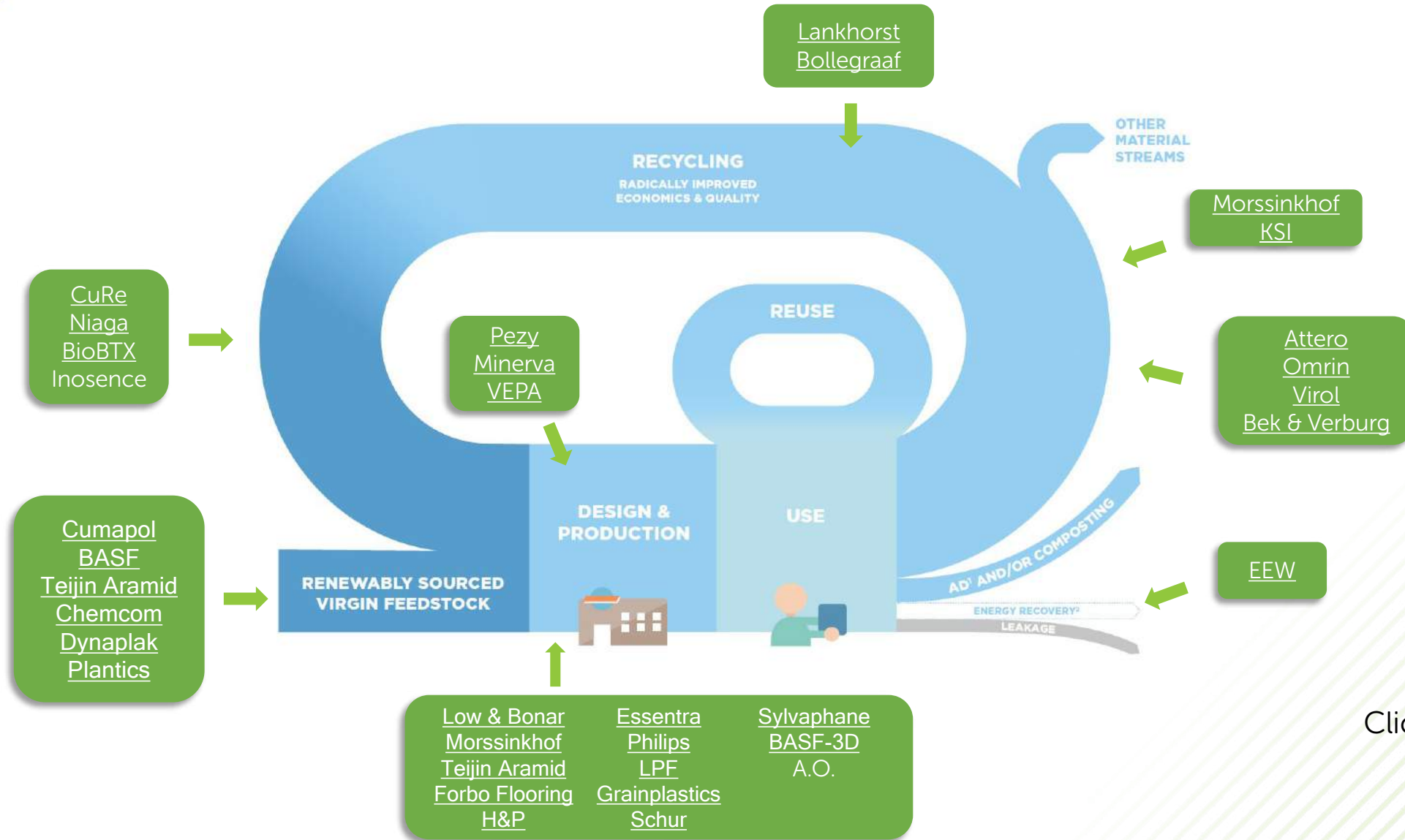
REDUCE PLASTIC WASTE
AND POLLUTION

All bases are covered at an industrial scale. Together with key partners along the value chain such as:

- Equipment manufacturers
- Industrial service providers
- Scientific partners
- Governmental organizations

- ✓ Highly advanced **Collection & Mechanical Recycling** system of post-consumer waste (>75kT of different products)
- ✓ **Integrated Polymer Production** cluster
 - Production and subsequent processing of a wide range of plastics; (r)PET, PA, PBT, TPE, HDPE, ABS, PS, PLA, PHA, PBAT
 - One of the largest man-made fibre clusters in Europa
 - Largest combined processing capacity of rPET in Europe
 - Largest producer of Aramid in the world
- ✓ European frontrunner in **Chemical Recycling**
- ✓ World Class **Technology Providers**
- ✓ 2nd **Start-up** region of the Netherlands
- ✓ Close **cooperation** within the value chain



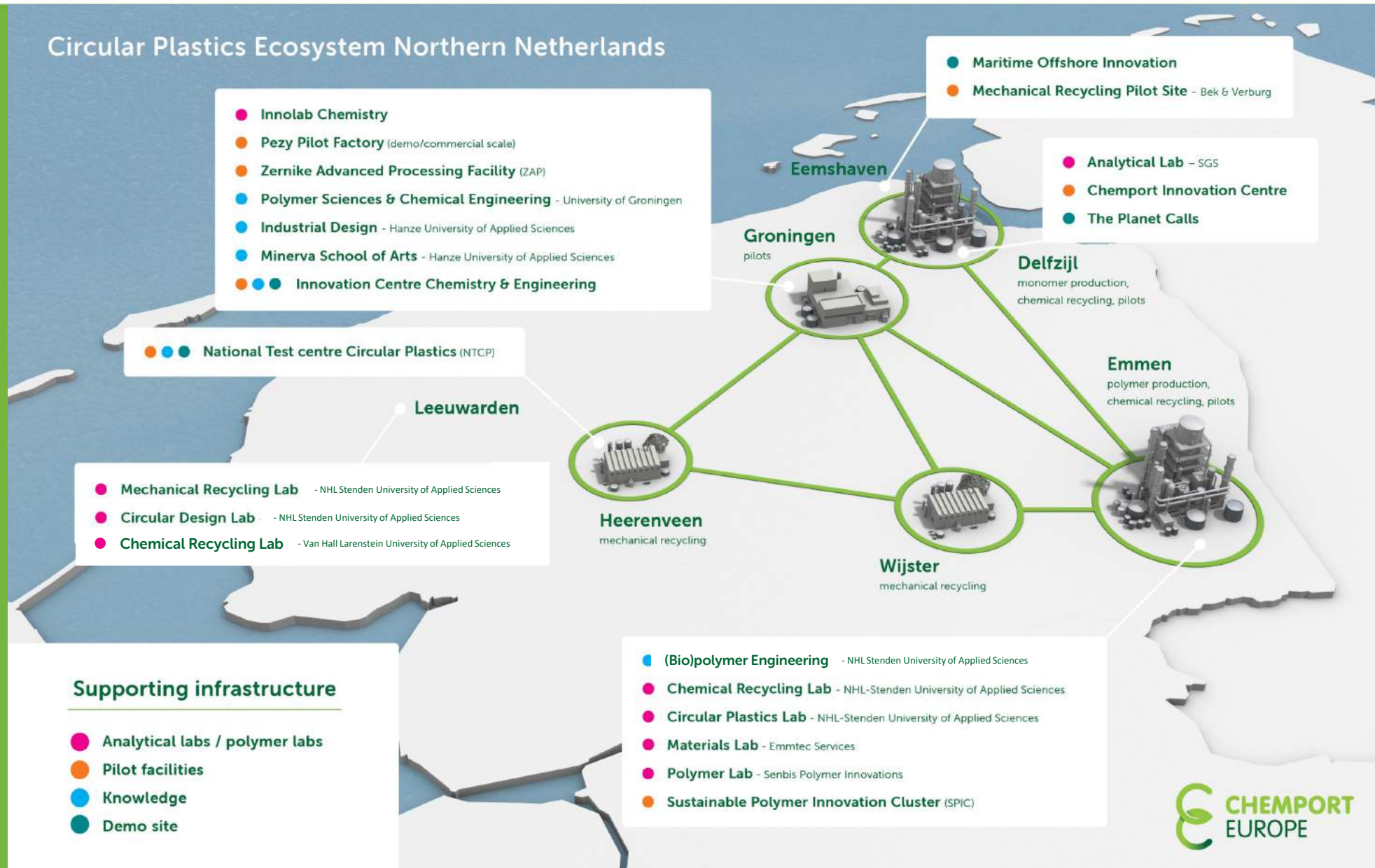


Click for more info!

Company

Circular Plastics Ecosystem Northern Netherlands

Complimented by an extensive supporting infrastructure





Test and optimize your
new circular business
model and/ or supply-
chain

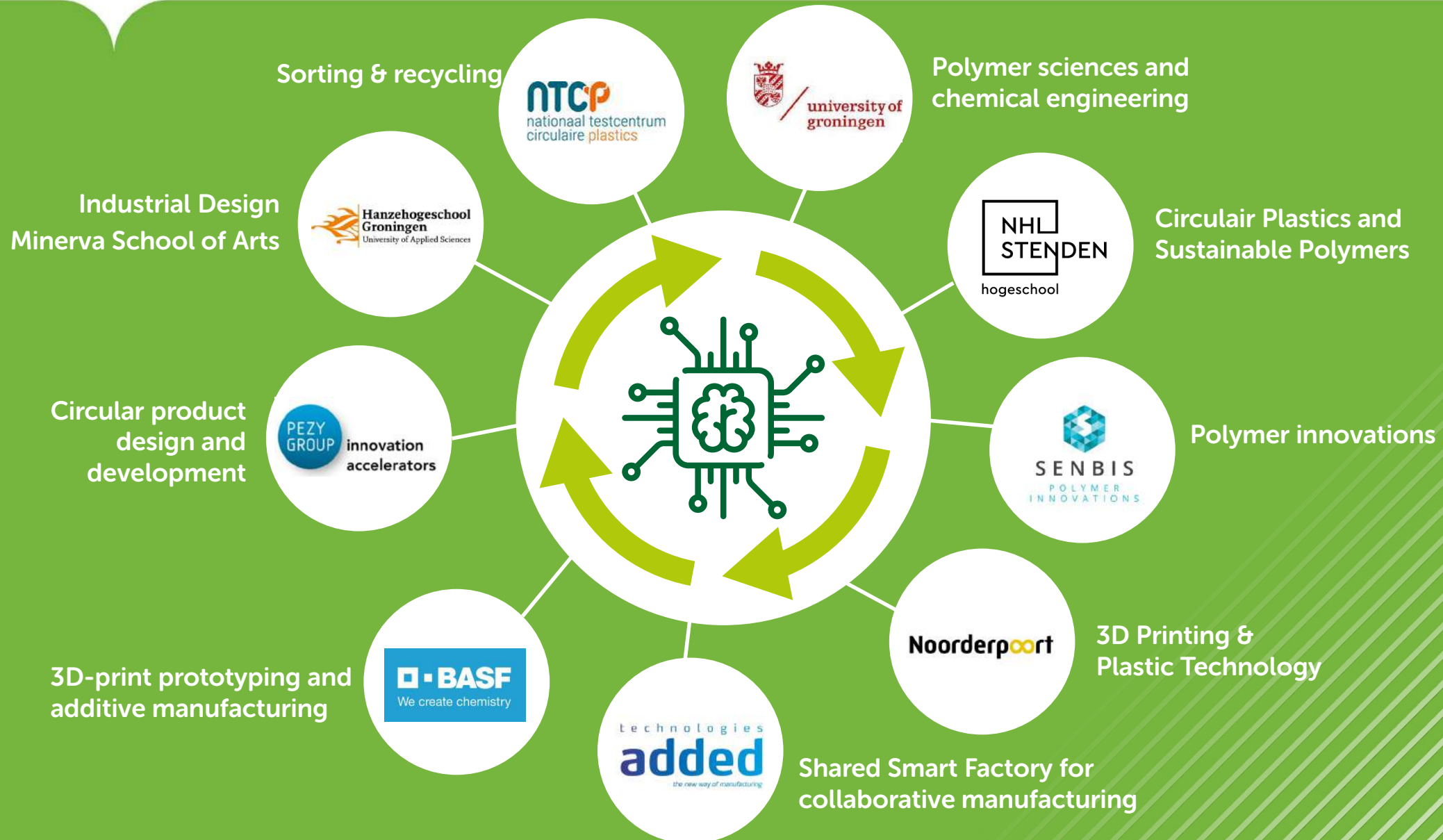


Test the market for circular
products at an industrial
scale before going to full
production. Start regional
scale fast(er) to national and
European level



Plug into an
existing large-scale
ecosystem

Joint focus;
Companies, government, knowledge institutes



All you need to go green



**PARTNERS AVAILABLE ALONG
THE CHAIN**



JOINT FOCUS



POWERED BY GREEN ENERGY



**EUROPEAN FUNDING AND
EXPOSURE**



GOVERNMENTAL SUPPORT



KNOWLEDGE AND WORKFORCE

Join us to...
make the **Circular**
Plastic system work!



All part of Chemport Europe

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A glimpse of innovations in the Chemport ecosystem

Vacuum cleaner made from post-consumer packaging waste

Grote doorbraak bereikt in recycling kunststof verpakkingen



PP from separated residual waste was recycled into a high-quality granulate. Achieved thanks to a collaboration between [Philips](#), [Morssinkhof](#), [NHL / Stenden](#), [Groningen University](#), and [Omrin](#).

This unique breakthrough produces such high quality and high purity raw-material granulate, that it can be re-used on a large scale and to produce high-quality 'new' plastic for consumer products in any color.

This unique recycling plant has been designed and build by [Bollegraaf Recycling Solutions](#).

Circular designed and produced climate sensors



Functional range of high-tech products based on recycled polymers



Pezy Group helps companies to break free from the traditional 'take-make-waste' design process. Products are 'designed for recycling' or 'designed from recycling'.



Railway sleepers from recycled polymers



General Manager Sjouke Tjalsma, Technical Manager Aran van Belkom and Commercial Manager Stefan Hofman at the production facility in Sneek, the Netherlands.

Lankhorst Engineered Products, manufacturer of KLP® Hybrid Polymer Sleepers, is the sole supplier of polymer sleepers for KiwiRail in New Zealand. The main reasons for KiwiRail to choose KLP® Hybrid Polymer Sleepers are the high quality combined with the long life-time of the product. The polymer sleepers will be applied in main track and in turn outs.

KiwiRail 

Lankhorst *Recycling Products*

100% circular carpets through chemical recycling of polyester



Designed for recycling
&
Designed from recycling



 **Forbo**
FLOORING SYSTEMS



VAN DE SANT
a Circular Innovation Company 




PlasticWhale.org

Scooter made from bioplastic composite



3D printed boat made from post-consumer waste



Boat made from PET bottles





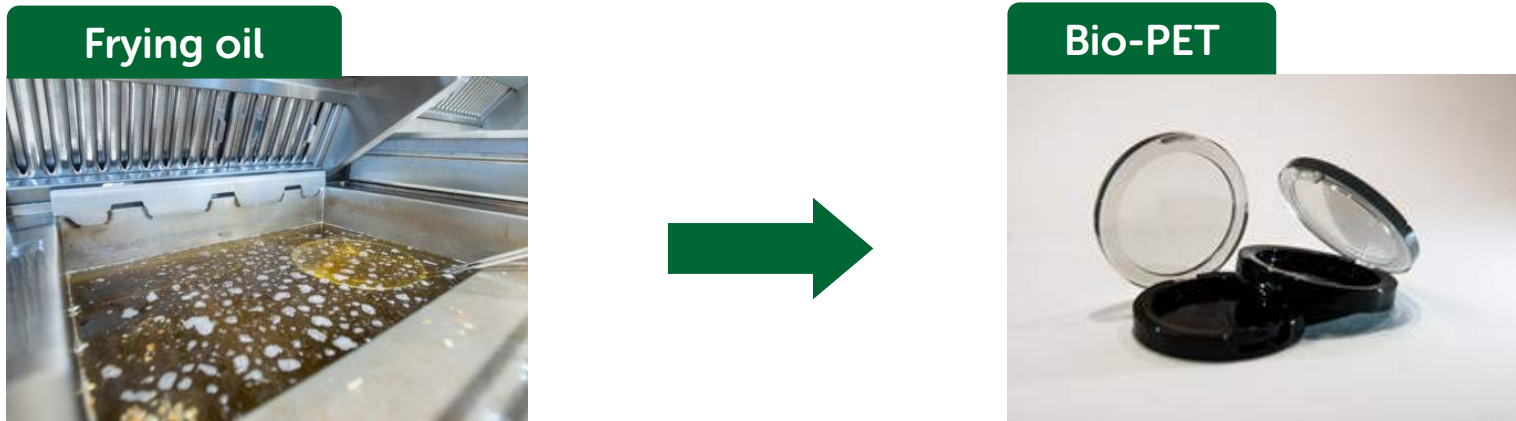
**NTCP**
nationaal testcentrum
circulaire plastics

 FrieslandCampina 

BOLLEGRAAF
| RECYCLING
| SOLUTIONS


avantium

World's First 100% Bio-PET from non-food resources



The example above is a great showcase of the unique ecosystem collaboration in our region. This development is supported by the local and international government (EU) due to its innovative character.



BOLLEGRAAF | RECYCLING SOLUTIONS

Major breakthrough achieved in recycling plastic packaging.



Used polypropylene (PP), obtained from separated municipal waste, recycled into a high-quality raw plastic material.

As this high quality PP is color sorted into color groups virtually no virgin master batches or other additives are required to create new products.

This breakthrough makes it possible to manufacture recycled polypropylene products that meet the highest quality requirements, in any color.

Bollegraaf / Van Dyk Technology & Material Test Center.

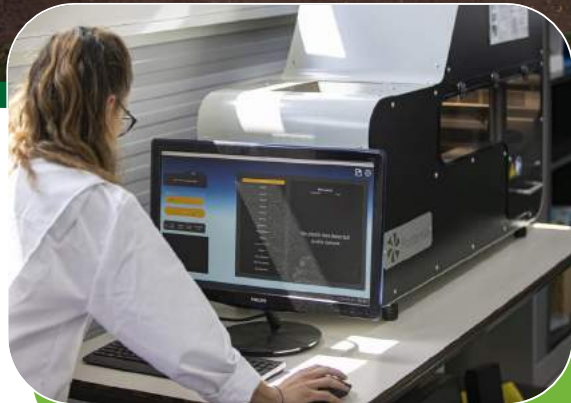
Focused on improving the process of achieving purity of recyclable grades. The Test Center allows our customers to experiment with new equipment and conceive of how to reach and improve their operating goals.



National Test centre Circular Plastics:

Independent test- and R&D centre for sorting and washing

- Facilities on industrial scale, fully customized for testing and R&D
- Open for all stakeholders in the value chain, integral approach
- Applied research, testing and validation for sorting and washing
- Own development programs, Perfects sorting, Application driven sorting and recycling, method development
- First independent, not-for-profit, organization in Europe with facilities on industrial scale



Bio-aramid production through high thermal recycling of waste



TEIJIN

BioBTX

Innovative biobased & biodegradable plastics



Compostable & biodegradable alternatives for the agricultural and marine sector



Biodegradable infill



Biobased medical devices



Development of PLA yarn

Aliancys	Enerpi	Lubrizol	Prodin
Area	EPS Nederland	Lubo Systems	Schur Flexibles
Attero	Essentra	NNZ	Senbis Polymer
Avantium	EuroProvyl	Nova Riet	Innovations
AVR	EV Biotech	N+P Group	Sidijk
BASF	EEW	MF Emmen B.V.	Soprema
Bek & Verburg	Flexoplast	Morssinkhof Plastics	Suez
BioBTX	Foamplant	Oerlemansplastics	Sylvaphane
Bollegraaf	Forbo Novilon	OMRIN	Teijin Aramid
ChemCom	FrieslandCampina	Paques	Torrgas
Cumapol	H&P Moulding	Pezy Group	TRH Recycling
CuRe Technology	Hempflax	Polytech	Van Afval
Delamine	Icopal	Philips	Van de Sant
DOW	Lankhorst	Photanol	VEPA
DSM	LIMM	Plixxent	Virol
DVC	Low&Bonar	Polem	Vita Plastics
Elzinga & van der Krieke	LPF	Probo	VDL Wientjes

