

Textilfabrik 7.0: Rethink industry - shape the future!

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Impacts and framework

Megatrends

Energy management / zero emission / self-sufficient energy supply

- › Holistic energy concept in consideration of **energy generation** (geothermal energy, photovoltaic system, wind energy, hydrogen), **energy storage** and **energy consumption**
- › Heat utilization from production related **exhaust air** and purifying of remaining exhaust air
- › Water free production processes or internal **water circulation system** including wastewater treatment/ **material and energy recovery** from waste and resource recycling

Artificial intelligence / robotics / machine communication

- › Implementation of efficient **digital infrastructure** for a digital and seamless network of the value chain (human/machine)
- › New, **databled business model** by combining “artificial intelligence” by respecting data security and data protection

Biotechnology

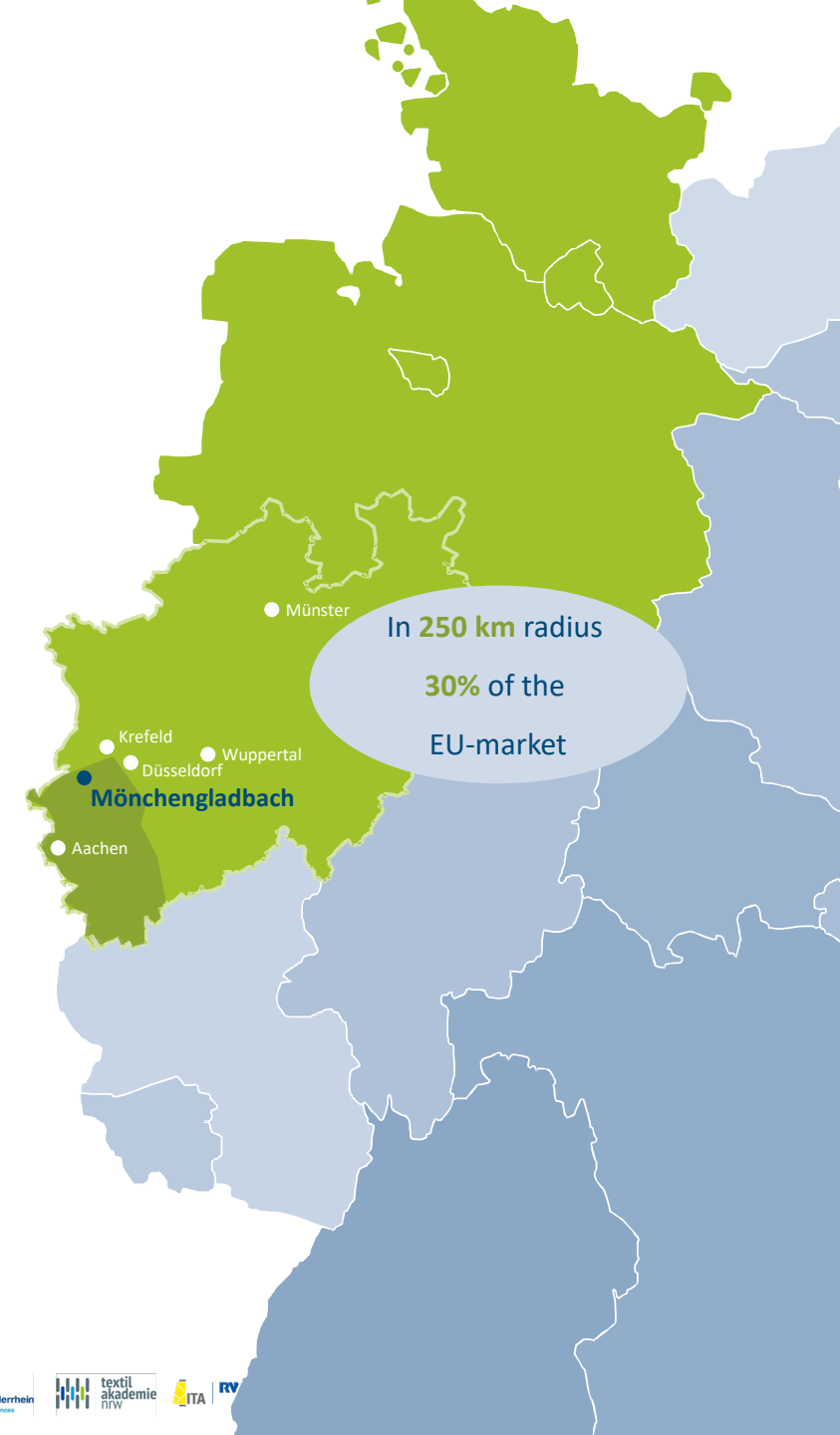
- › Copying natural growth processes or biological processes to substitute conventional industrial processes → using **potentials from various organisms** or rather the constituents in targeted synthesis / modification of substances / depletion of pollutants
- › **Substitute non-renewable resources** by using waste material / renewable resources



Structural change in the Rhenish district

Unique framework

- › The textile industry as a **key sector** for future industry development
 - **Second largest consumer goods sector in GER** (after food industry)
 - Highly **innovative** industry (rank 3)
 - **GER rank.3** in export of textiles and clothing (after China and Italy) measured according to value
 - High indirect effects on the automotive, pharmaceutical and construction industry
- › “Verband der Rheinischen Textil- und Bekleidungsindustrie e.V. “ and “Verband der Nordwestdeutschen Textil- und Bekleidungsindustrie e. V.” enclose the Rhenish district and representing the **whole textile value chain**: strong application and educational expertise as well as excellence in research
- › Highly specialized: Textile sector is one of the **key industries in Mönchengladbach** (**3.3x higher** degree of total number of employees with subject to social insurance contribution **compared to NRW**, State 06/2019)
- › The unique closeness worldwide between economy as well as academies, educational and higher education institutions is : high potential for **qualified recruits** in the future



T7 overview

Central view



Legende

- Megatrends
- Core modules
- Services and offers

Four essential modules

T7 Factory

Biosphere

- Textile finishing with microbial agents
- Customized product development/ analysis and recycling concepts
- Manufacturing of hybrid materials
- ...

Customization

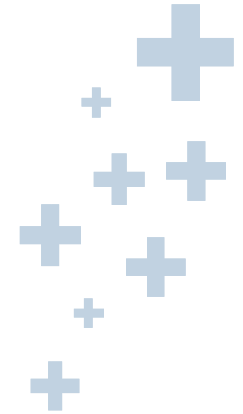
- Dyeing and finishing services for sample collections in T7, commissioned by customers
- Studio for scalable prototypes “transfer from small to large scale“
- ...

Digital Textiles

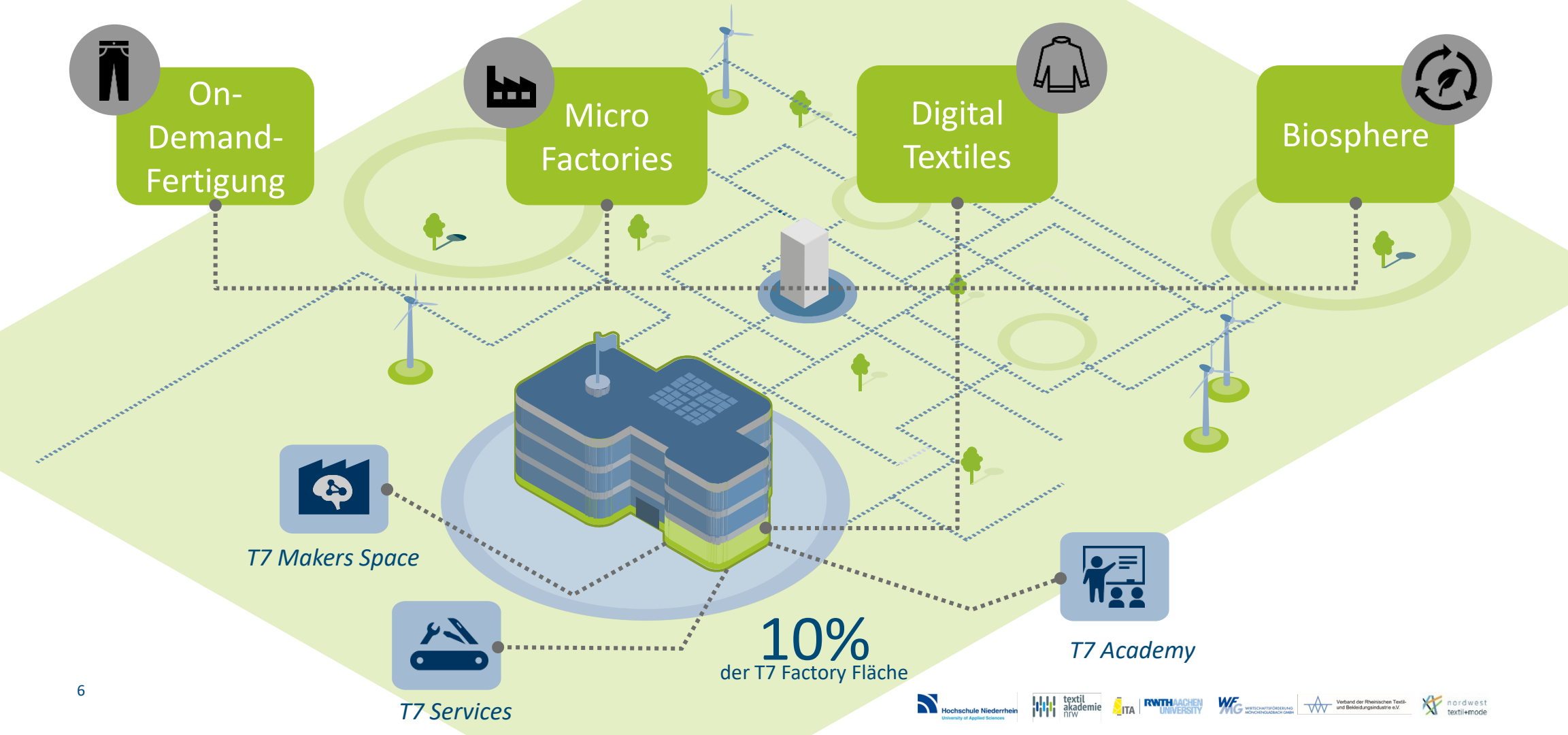
- Feasibility studies, product design on request, further services
- Full service rental of laboratory- and workshop spaces including professionals
- ...

Micro Factories

- Machine development on request, proof of concept, consortium and research projects
- Renting of production line for application tests in a “realistic“ production
- ...

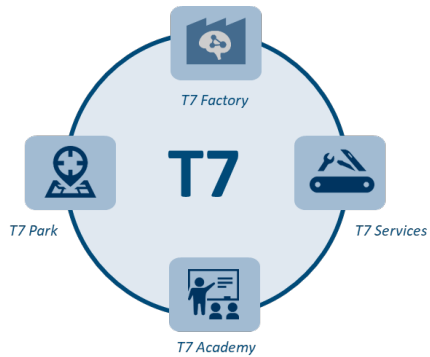


T7 Factory ist the magnet of T7 Park – producing innovation driver



Offer and added value

Service portfolio



T7 Factory

- › **Corporation and projects** among corporates, SME and start ups in the four core modules
 - 1) Biosphere
 - 2) Digital Textiles
 - 3) Customization
 - 4) Micro Factories
- › **Cooperation space** (close to product): lab and shopfloor, showroom
- › **Modern working environment** for coworking: individual working space as well as event rooms
- › **Maker Space** (collective sourcing)
 - Maker space including corresponding equipment
 - For testing by trial and error
- › **Testing and certification body**
- › Organisation: GmbH (new)



T7 Services

- › **Offer of various formats**, possible utilization of T7; optional opening for externals, e.g. **development of digital business models** (gain added values with data: Which data? Which opportunities? Which safety? Etc.)
- › **Patent- and license exploitation**
- › **Innovation coaches**, supporting with methodical impulses and considerations
- › Orientation along the **value chain**: from inspiration to market launch
- › **Network management** for local ecosystems (Near Sourcing)
- › Organisation: GmbH (new)



T7 Academy

- › Teaching, innovation and education
- › **Development of new modules** and qualifications corresponding to the core modules
- › Formats of HN, RWTH and TA will be adapted
- › Aspects of **teaching, education and training**
- › Events
- › Organisation: HN, RWTH (ITA Academy), Textilakademie, integration of external partners

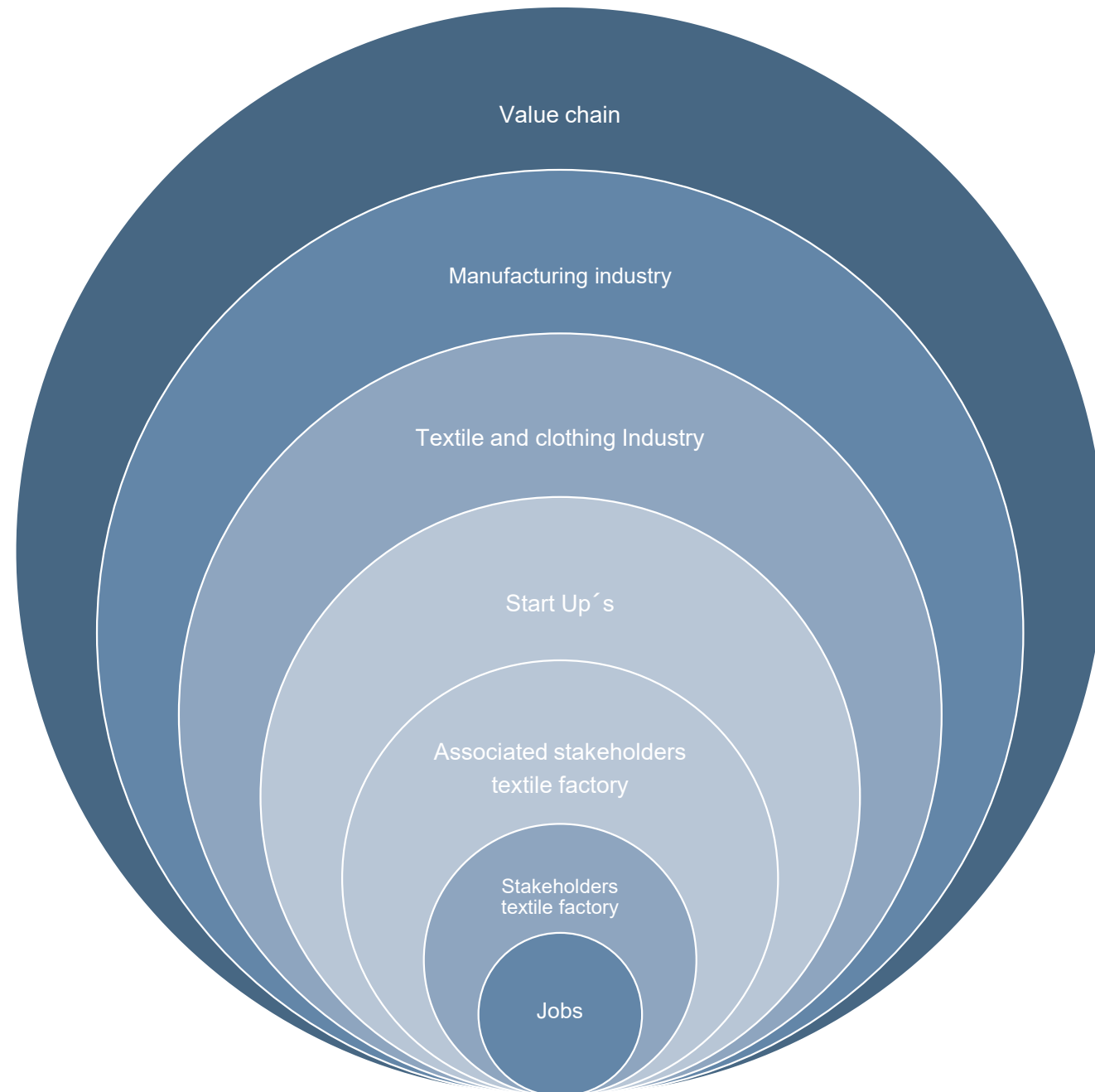


T7 Park

- › **Ecosystem**
- › **Settlement** of companies (Near sourcing, suppliers)
- › Services industrial park
- › Availability of **commercial spaces** as well as **business properties** in immediate environment (20 ha)
- › * service package included in offer of TF 7.0, will be offered externally, possibly external administration
- › Organisation: tbd.

Effects of T7

New jobs



Jobs directly at T7

2021: 18 FTE

2025: 39 FTE

2030: 50 FTE

Job creation effects T7 Park

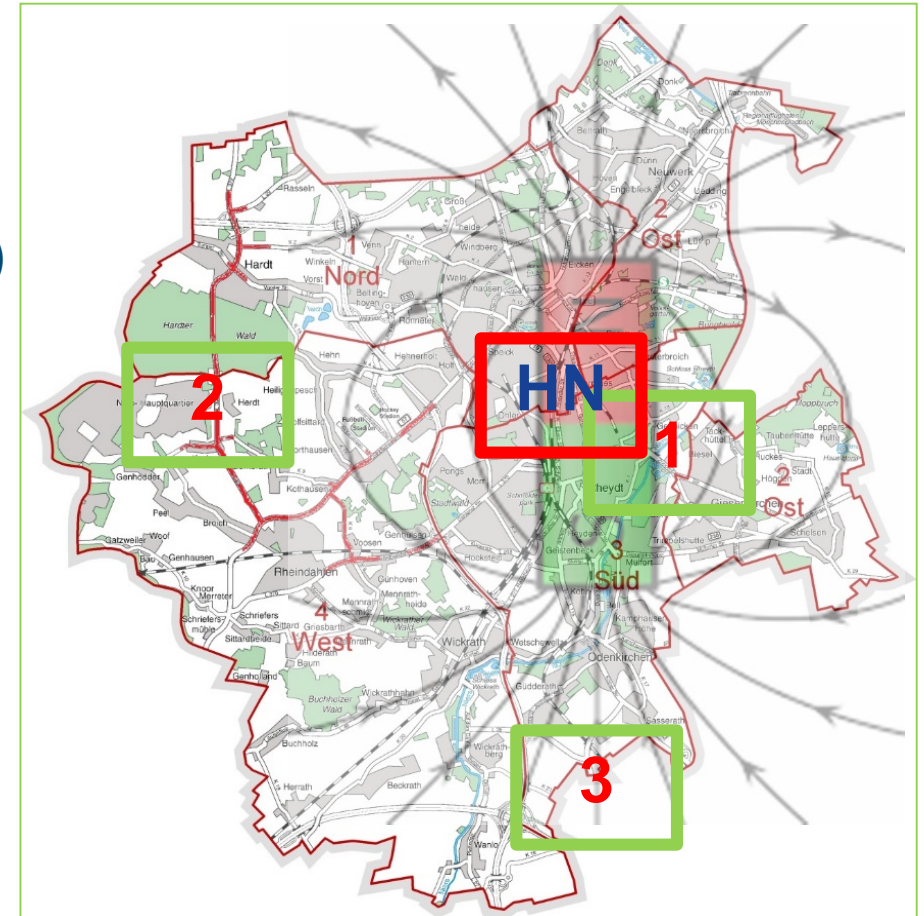
2035: ~2.500 FTE plus
each FTE **min. one**
additional indirect
job in Germany

*Values from reference projects and studies
(Centres with an area of min. 5.000 m²
and corresponding surrounding vacancies)*

Regional classification

T7 | Location

- Magnetism between university (Hochschule Niederrhein) and future industrial park
- Planned size: 20 ha
- HSNR / Textilakademie / T7-Incubator...
- Consideration of megatrends
- Sustainability / reducing dependency on fossil materials: future-oriented energy supply (zero-emission)
- Attractive green environment: converting soft into hard location related factors
- Newly developed mobility concepts for good local and (cross-)regional connection
- High urbanistic and architectural standard for new properties





Contact

T7 | Contact persons

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