

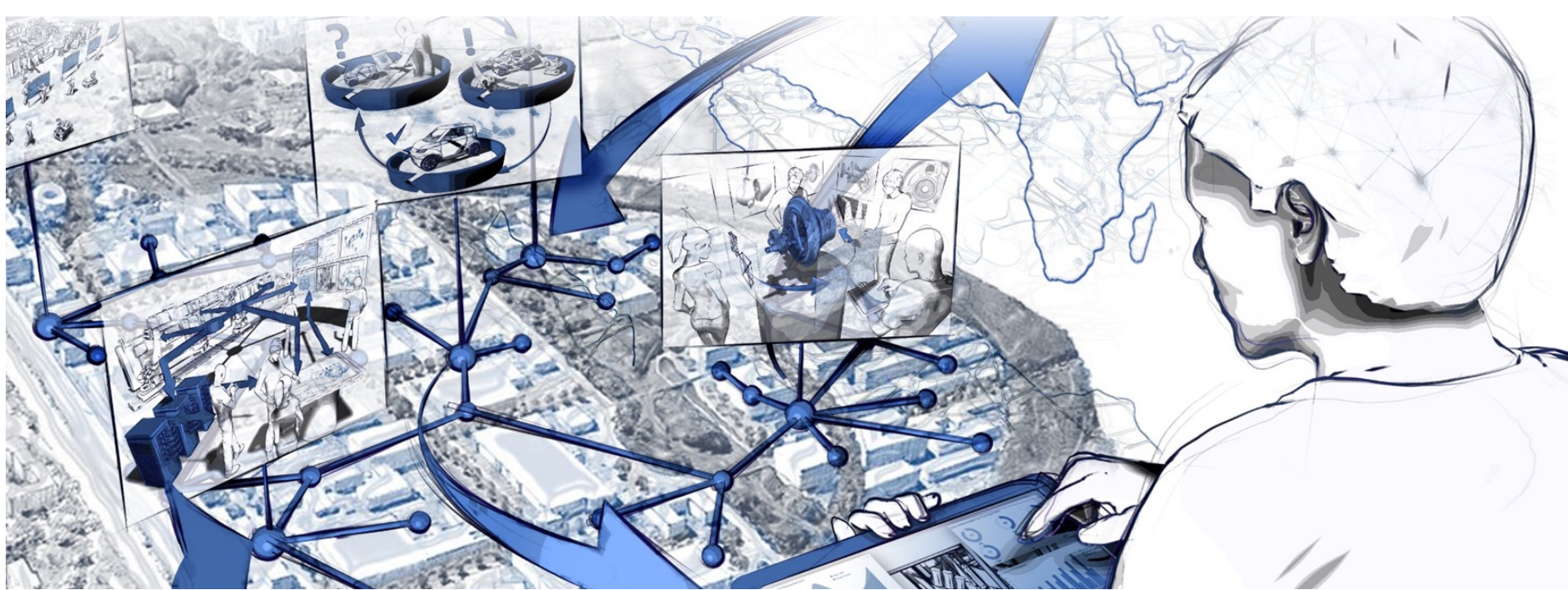
# Key research area: Digitalisation

## Research on digitalisation at IKV



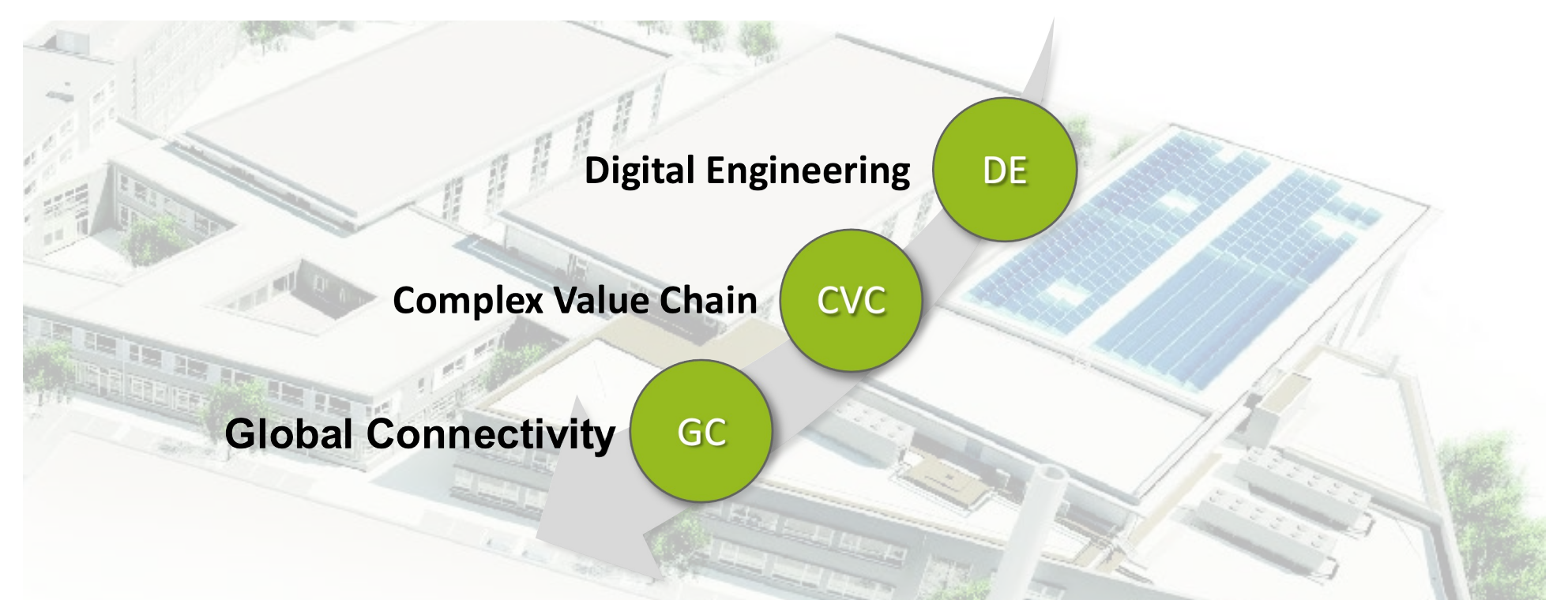
The IKV is a leading research institute in the field of digitalisation in the plastics industry and a cutting-edge research and development partner for science, industry and innovative start-up companies. At Campus Melaten a completely digitalised research environment and infrastructure, the Plastics Innovation Center 4.0 (PIC 4.0), is currently being created to conduct comprehensive research on digitalisation in plastics production. As a competent partner, the IKV offers the infrastructure and test beds for the development of new digital methods with the Smart Facility. The aim is not only to enable the plastics industry to deal competently with digitalisation methods, but also to train junior staff with Industry 4.0 expertise.

## Internet of Production



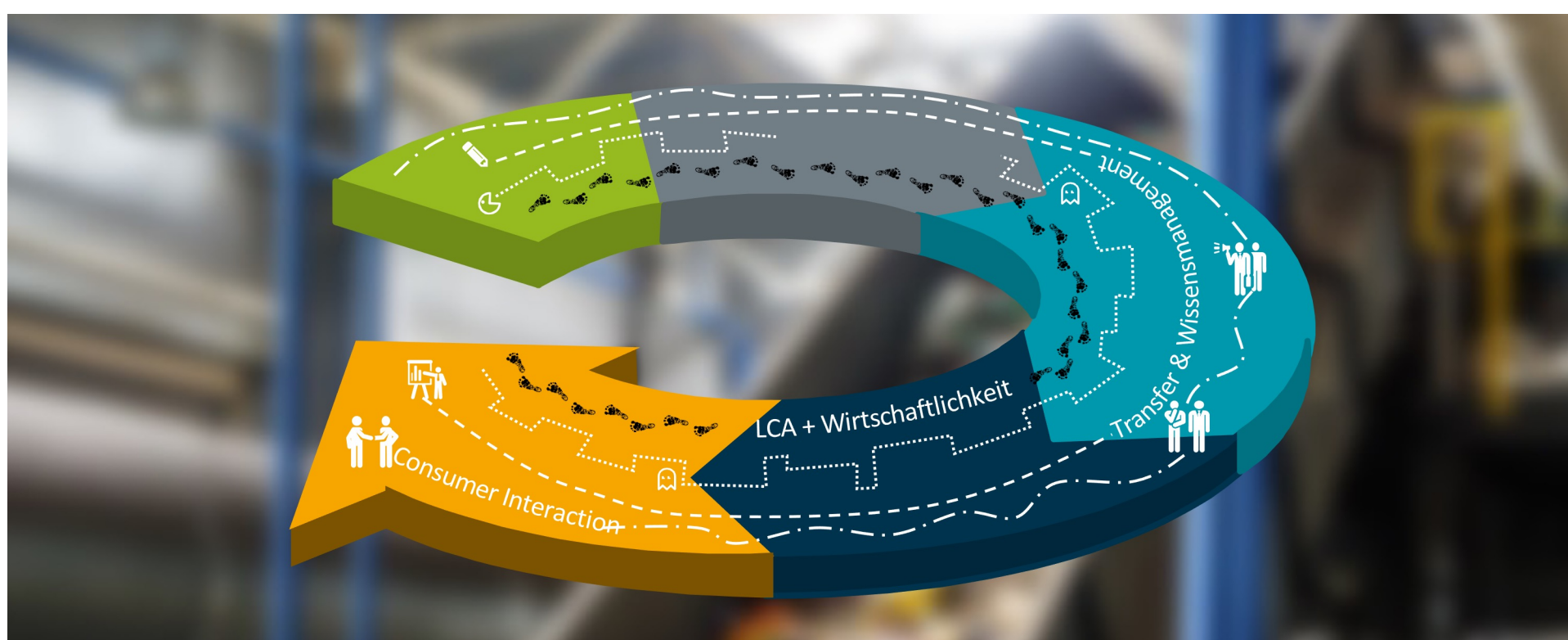
- Digitalisation offers great potential for increasing productivity, quality and enables more flexible and robust processing.
- An interdisciplinary team with staff from over 35 institutes researches new technologies from infrastructure to specific applications for a wide range of production processes.

## Plastics Innovation Center 4.0



- The development of new technologies in the field of Industrie 4.0 is progressing rapidly.
- To accelerate the development of new process technologies as well as Industrie 4.0 solutions, the IKV has initiated and built the PIC 4.0.
- An R&D environment modelled on a smart factory is available to prototype new processes and technologies.

## KIOptiPack



- Plastic packaging accounts for a large part of plastic production and requires more sustainability in use and production.
- 40 partners from research and industry are working on the use of AI methods to improve sustainability right along the value chain
- A digital infrastructure and specific AI methods for improved processing and sustainable product design will be developed.

## PolyEx – Polymer Excellence



- To meet the rising demand for efficient education and training in plastics-related skills, a digital platform is being developed that integrates offers from different providers.
- AI-based methods are used to improve the interaction with the user and identify the most beneficial offers for the individual user.