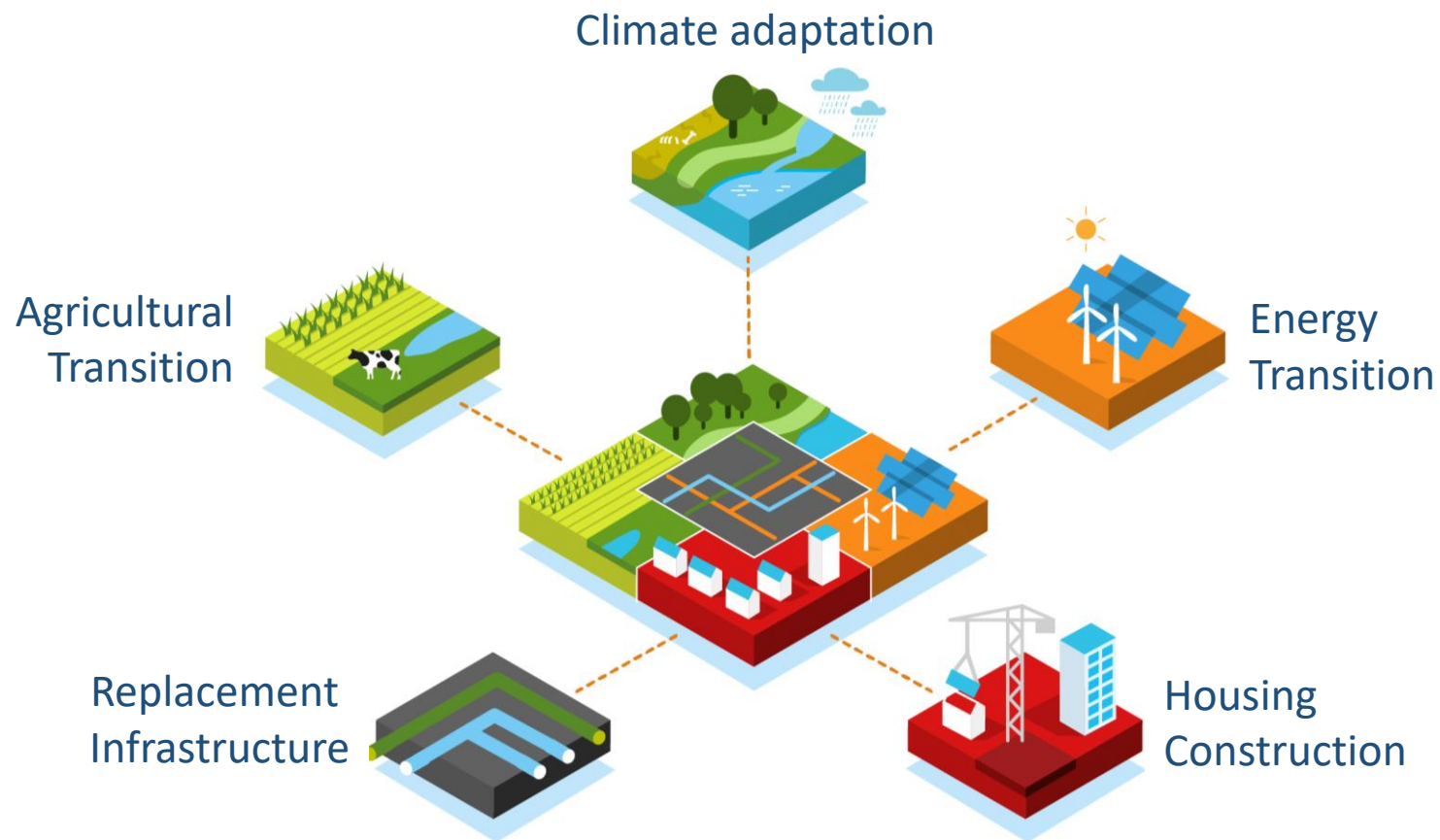


Investment proposal

Development Dutch National Digital Twin Infrastructure

Stimulating an Ecosystem for use and application

Digital Twin Physical Living Environment



The Netherlands are working on five major challenges

Social challenges Physical Living Environment

Participation and information

Facing Major Challenges that....

- Compete on priorities, knowledge capacity & funding
- Introduce complexity of the living environment due to competing aspects as space, health, sustainability, safety etc.
- Involve many party's including officials, citizens, businesses, knowledge-institutions.

We work towards solutions...

- Participation on the basis of *public values*
- With an instrument to support the information and decision making process.
- *Design principles* that guarantee the responsible use of technology and data necessary to realize the tasks.



National Digital Twin



System that supports regional, thematic or urban Digital Twins



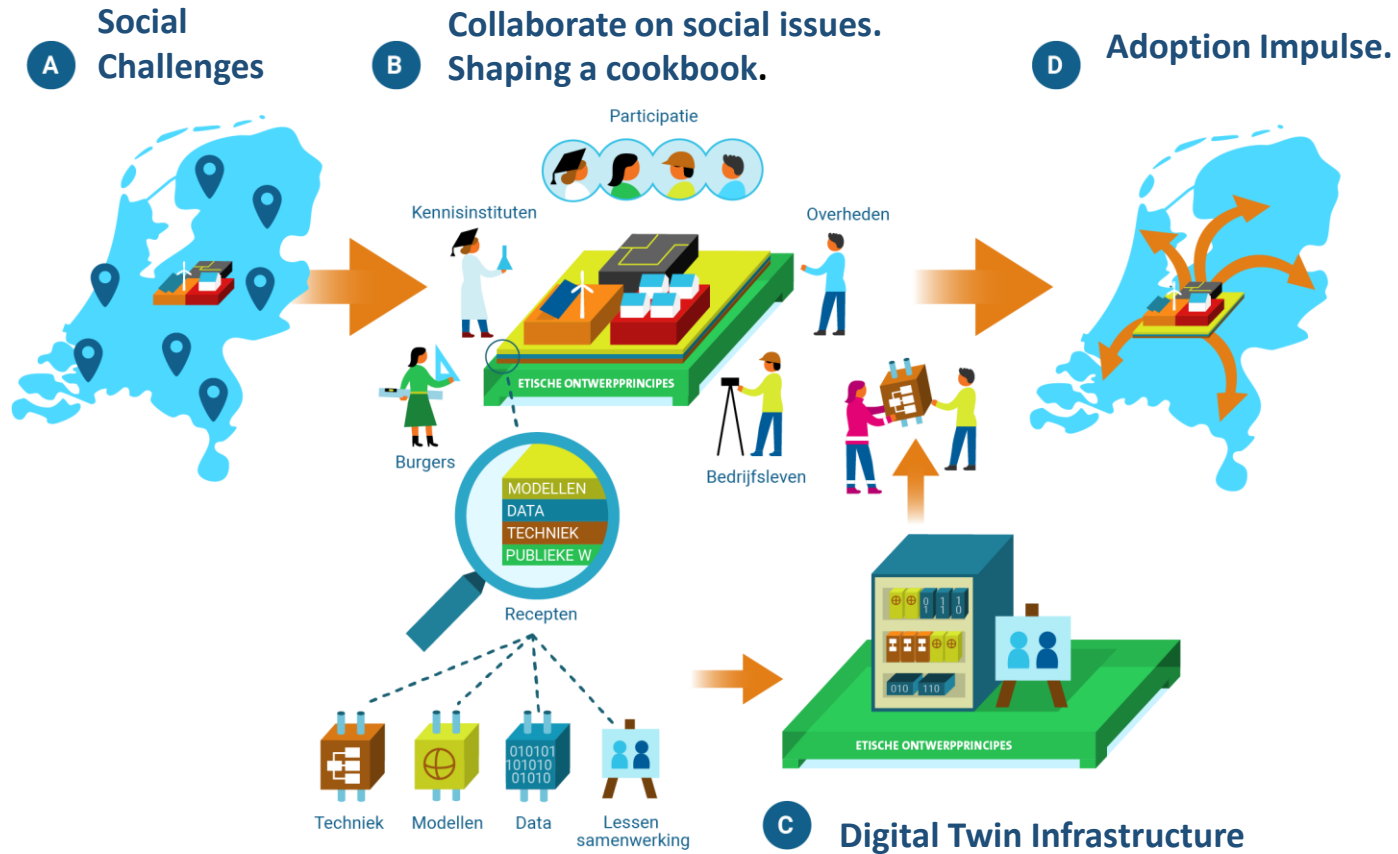
The National Digital TWIN Infrastructure enables:

- sharing of source data, models and visualisations.
- access routes to reliable ingredients for a DTFL



The DTFL ecosystem provides standards, quality marks and instruments to ensure transparent use of DTFL's in a context of public values

'Digital Twinning' in a National perspective



'If applying this technology and knowledge on a national scale with a public instrument, solutions become smarter, faster and more social.'

Fieldlabs: digital twinning in practice

Flevoland/ Almere:
Construction of 110k homes

RWS / Waterboards:
Monitoring dikes

Province Zuid-Holland:
Counting consequences of nitrogen

RWS
Renovation of bridges

Breda/ Den Bosch
Save crowdmanagement

Prv Utrecht/ Amersfoort:
healthy urban living

Nijmegen/ Nationale Politie:
Save eventmanagement

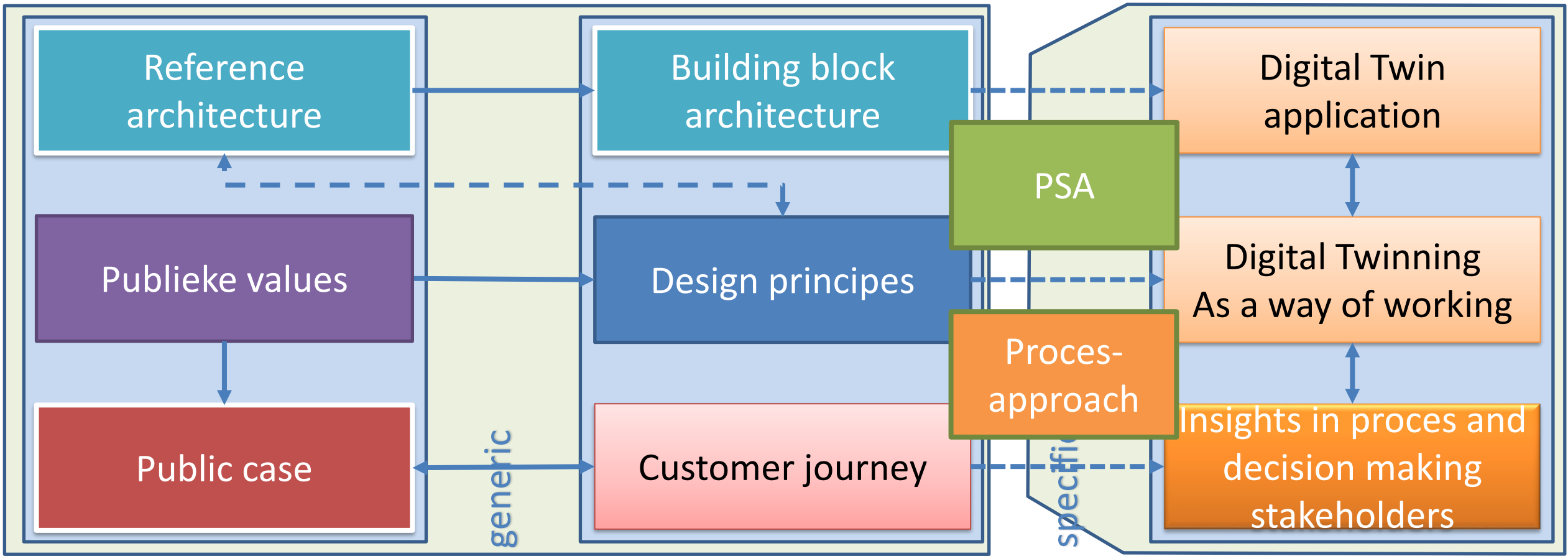


As principle

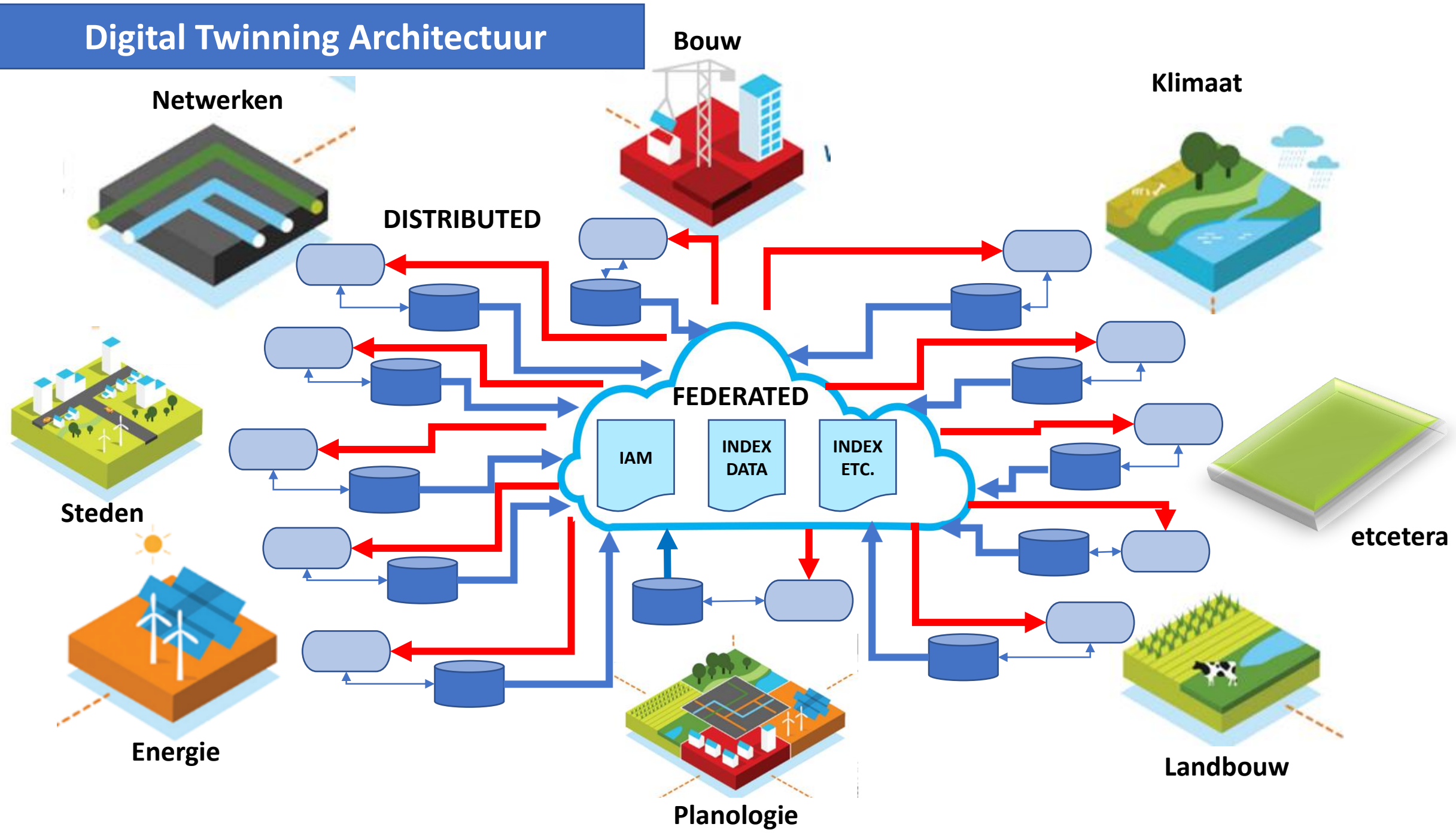
Concrete

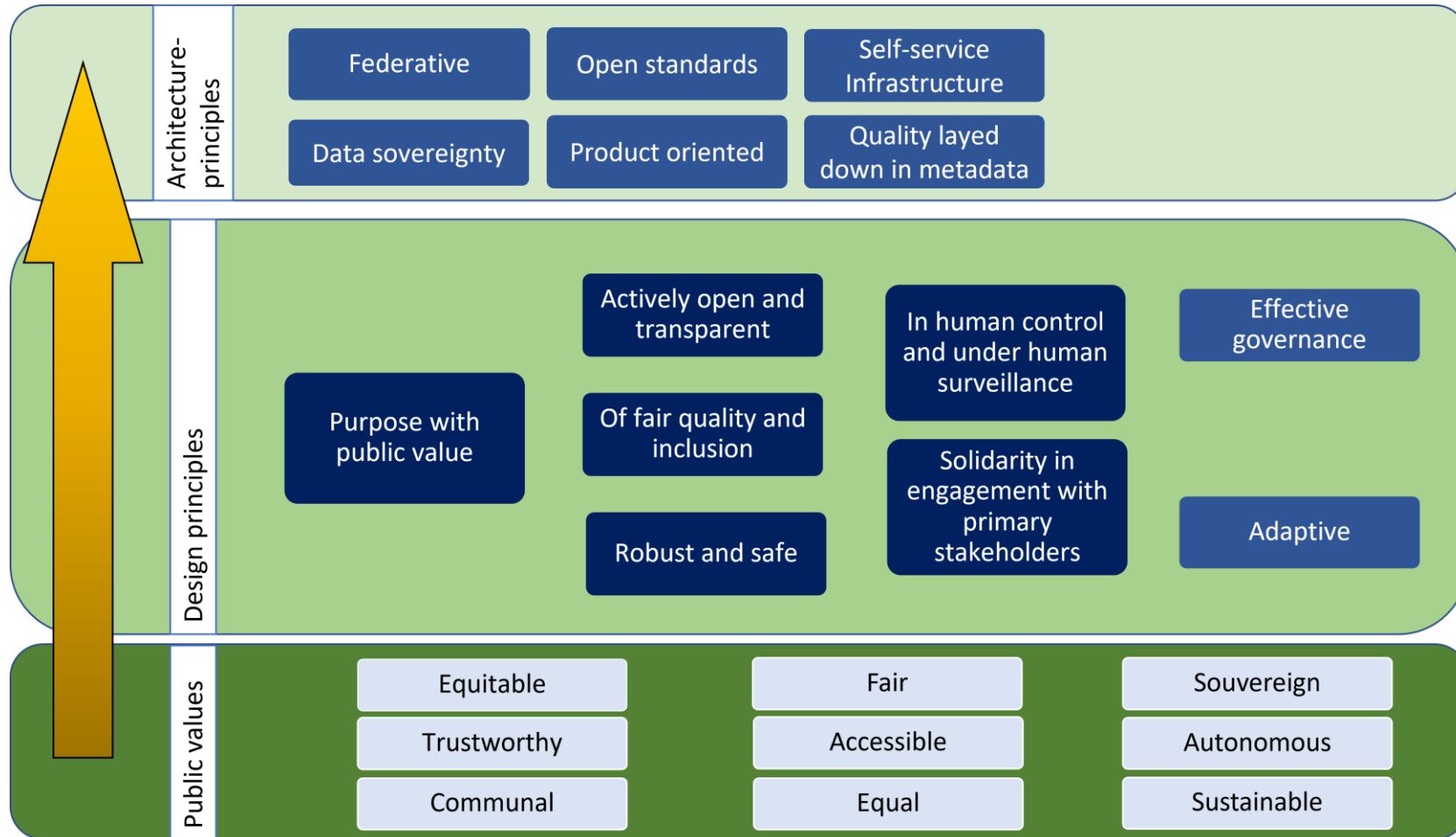
In fieldlab

Coherence

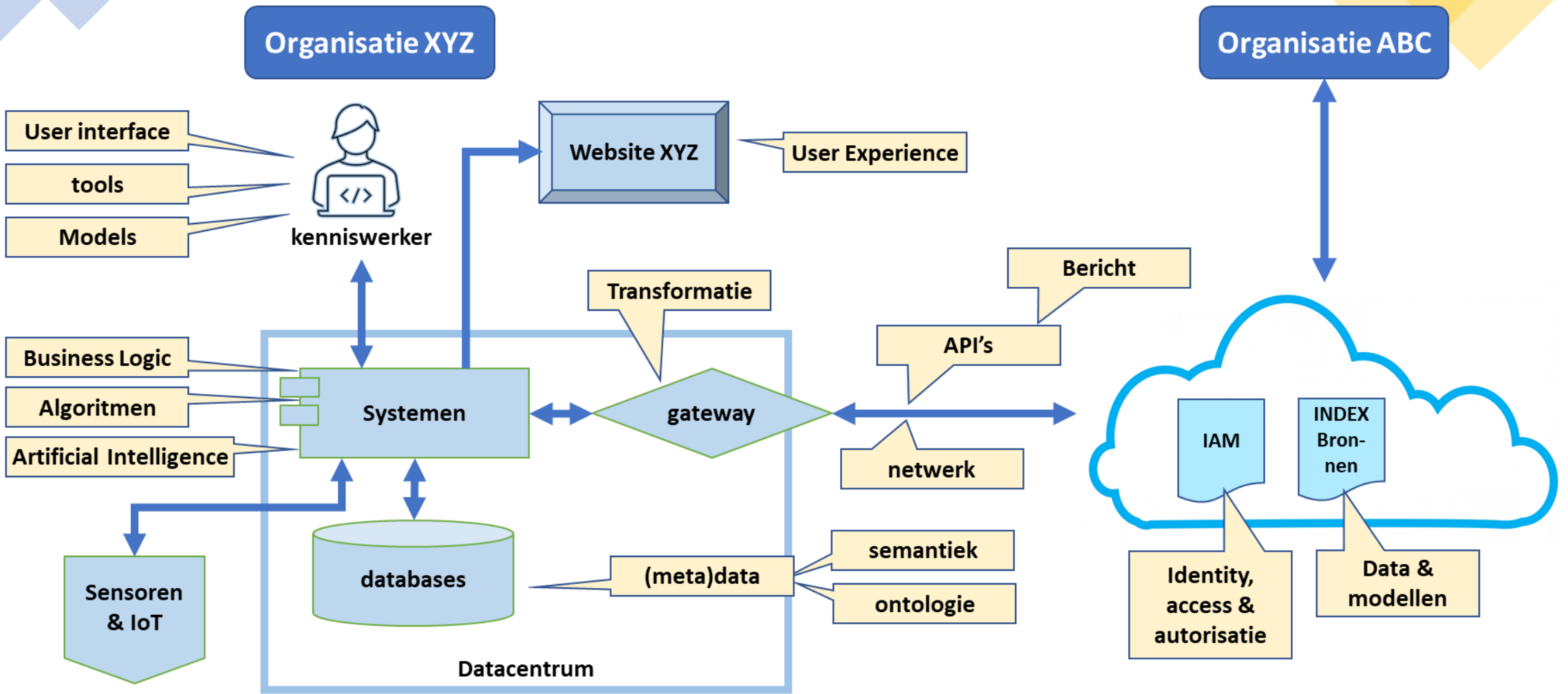


Digital Twinning Architectuur





Public Values translated in design principles



Involved public organisations



Ministerie van Binnenlandse Zaken en Koninkrijksrelaties



PROVINCIE FLEVOLAND



samen slimmer sneller



GEMEENTE TILBURG



Rijkswaterstaat



provincie groningen



European Commission

Joint Research Centre



WAGENINGEN UNIVERSITY & RESEARCH



Rijksinstituut voor Volksgezondheid en Milieu
Ministerie van Volksgezondheid, Welzijn en Sport



Ministerie van Infrastructuur en Waterstaat



Centraal Bureau voor de Statistiek



UNIVERSITY OF TWENTE.



WoonConnect



PROVINCIE UTRECHT



geobusiness nederland



DiS Geo
Doornontwikkeling in Samenhang



provincie HOLLAND ZUID



Interprovinciaal Overleg van en voor provincies



Ministerie van Infrastructuur en Waterstaat



Afspraken over toegang tot data



Digitaal Stelsel Omgevingswet

Deltares

Enabling Delta Life



hoogheemraadschap Hollands Noorderkwartier



HOOGHEEMRAADSCHAP DE STICHTSE RIJNLANDEN

TNO innovation for life

Colofon

- The initiative to jointly draw up an investment proposal stems from the Location Pact. Information about the collaboration between government, industry and science, the context and the objectives of the Location Pact can be found at:
- <https://www.geosamen.nl/locatiepact/>
- The substantive building blocks of this investment proposal will be explored in 2020 in three workshops, in which the government, market parties and knowledge institutions share knowledge and carry out explorations.
- More information about the Digital Twin workshop, the Artificial Intelligence and location data workshop and the Ethics and location data workshop can be found at: <https://www.wijsmetlocatie.nl/>
- Commissioned by the Ministry of the Interior and Kingdom Relations, Rijkswaterstaat and the province of South Holland, Geonovum is developing the Investment Proposal Digital Twin Physical Living Environment. The connection with the EU programs AI Watch, Green Deal Data Space, DestinE and DigiTranscope is secured through the MoU Eu-joint Research Center - Geonovum (December 2020)
- For questions or suggestions about this initiative, please contact project secretary Damiaan van Noort (d.vannoort@geonovum.nl)