# DIGITAL TWIN PLATFORM ARCHITECTURE AND DESIGN INSTRUMENT



Innovation by Nature

## DIGITAL TWIN PLATFORM ARCHITECTURE AND DESIGN INSTRUMENT (DT-AMBO)

The Digital Twin (DT) Platform Architecture and Design (DT-AMBO) tool is part of our Digital Water programme, in which we have collected our different digital products and services. These can be applied jointly or separately so as to make the design, realisation, management and maintenance of water infrastructure more efficient and to save costs.

#### WHY DT-AMBO?

Your organisation is responsible for the design, realisation and maintenance of critical water infrastructure. You accomplish this by applying a large number of different tools. You dispose of quality data which you should be able to use in a targeted manner, enabling you to carry out your tasks even better. However, this data stream just keeps on growing because of the use of increasingly advanced forms of data generation, acquisition and storage. You want to be able to make use of these data in a transparent and traceable manner. DT-



AMBO makes this possible. It facilitates the integration of data with tools in four dimensions. The first dimension is that of Twin-to-Systems-of-Record integration. This concerns the systematisation of the administrative processing and the storage of all the data that are assigned to the digital copy of the infrastructure. The second dimension involves a Twin-to-Device integration, in which the data streams and time series produced by the infrastructure are stored in a structured manner. In the third dimension the platform facilitates the Twin-to-System-of-Intelligence integration, in which data are analysed and converted into knowledge and information, which may or may not involve the use of AI/Machine Learning. The aim in this case is to develop frameworks of action for maintenance and management. And, in the last dimension, the platform can be used to facilitate a Twin-to-Twin integration, in which related infrastructure can be logically interconnected (functional hierarchy, cascade effects).

#### WHAT DT-AMBO OFFERS

- Assistance to organisations in functionally setting up their own DT-Platform, in line with their needs and connected to their own and others' databases.
- Assistance to organisations in transparently and traceably connecting their own ICT environment to the DT-Platform, assuring the security of the data use and storage.
- Assistance to organisations in making available for a DT, the relevant implicit and explicit knowledge present within the organisation.
- Guidance for organisation staff on working within a DT environment, and assistance to the organisation in becoming independent in this regard.

#### SETTING TO WORK WITH DT-AMBO

We will set to work with your organisation in realising the platform. Based on the developed mission, vision and strategy (DT-SCOPE), we will jointly design the contours of your DT Platform. We will research the information that is available and necessary for the development of a successful DT approach. This will result in a draft design of a central DT Platform, which will form the basis for an effective DT approach. DT-AMBO will be implemented in close collaboration with diTTo, our international Digital Twin company.

### DO YOU HAVE A DT-AMBO IDEA?

Do you have your own idea about how DT-AMBO can be used in your specific situation? Are you wondering about how you can get your infrastructure's Big Data world to work for you optimally via a Digital Twin approach? And about how you yourself will maintain control? We would be happy to share our experiences with you.

Meer weten over Dareius en wat we voor u kunnen betekenen? **NEEM CONTACT OP** 

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