DIGITBRAIN experiments

Digital Twin for Agile Changes - DITAC Experiment

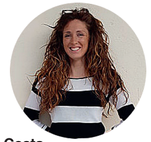
Over its project lifetime the project will implement **21 highly innovative experiments** to build a Digital Twin that solves the problem of the participating manufacturer.

Experiment 8 aimed to introduce a **Digital Twin-based solution to Restart's design process**, an SME specialized in supply (from design to material realization) of **tailor-made industrial automation solutions.** The Digital Twin-based solution aimed to **reduce the efforts needed for an after-sale change**, providing virtual support/simulation for the required design changes.

For Restart, efforts, costs and downtime needed for an after-sale change providing virtual support and simulation for the required design changes could be significantly reduced.

For IDM Systems the experiment allowed for extending their scope of their digital twin technologies and the offer of a digital twin as-a-service solution for new customers.

No. 8



„DITAC Experiment „aimed to reduce the efforts, costs and downtime needed for an after-sale change, providing virtual support and simulation for the required design changes. In addition, our goal was to predict cable degradation in our production cell using the digital twin with machine learning algorithm." **Maria Costa**
Restart Automation

Discover Experiments:

IDM SYSTEMS imati RESTART AUTOMATION & ROBOTICS

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*In two open calls the project added new partners to perform application experiments, each to build a use case specific digital twin. Currently there are 73 project partners in the DIGITbrain project.

Get in contact, if you want to learn more about the DIGITbrain Solution!

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DIGITBRAIN

DIGITAL TWIN DEVELOPMENT WITH REUSABLE BUILDING BLOCKS

PART OF THE I4MS COMMUNITY

The DIGITbrain project has received funding from the European Union's Horizon 2020 research and innovation program under Grant Agreement No 952071.

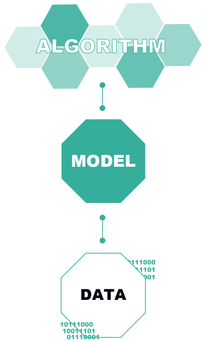
DIGITBRAIN'S APPROACH TO MODULARIZED TWINS

REUSABILITY | VERSATILITY | SOUVEREIGNITY | MODULARITY | SIMPLICITY | HOMOGENEITY

DIGITbrain Project aims to **facilitate the distribution and utilisation of digital twins** in the manufacturing industry by

- providing a **modularised approach utilising preconfigured components** to facilitate and accelerate the development and customization of Digital Twins.
- **augmenting the Digital Twin concept to a smart, self-preserving entity** that's equipped with memorizing, decision and support capabilities.
- enabling the **Manufacturing as a Service business model**, which provides
  - utmost flexibility for manufacturers who can **remotely access manufacturing machines** they need and
  - new **business opportunities for machine providers**.

DIGITAL TWINS BUILT FROM RESUSABLE BUILDING BLOCKS



DIGITbrain's modularised approach allows to **facilitate and accelerate the development of digital twins** through the use of **preconfigured and reusable building blocks** - **microservices, algorithms & models.**

Are you a software or machine provider for the manufacturing industry? - Interested in the accelerated delivery of a digital twin solution suiting the needs of your manufacturing customer?
Publish your building block on DIGITbrain Platform!

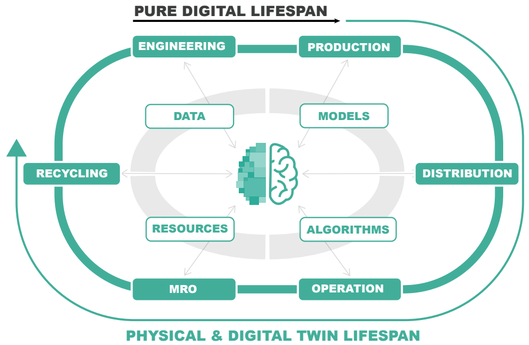
Learn more about **DIGITbrain's approach** on **GitHub**:

THE DIGITAL PRODUCT BRAIN

THE EVOLUTION OF DIGITAL TWINS TO ENABLE MANUFACTURING AS A SERVICE

By **expanding the concept of a digital twin to a smart entity** - which is empowered with **analysis and decision support capabilities and a memorizing capacity** that stores all data from the **whole life-cycle of an industrial product/machinery** - DIGITbrain represents an **evolution of the digital twin concept**: the **Digital Product Brain (DPB)**.

The **combination of the gathered data with dedicated models** within the different stages of the product lifecycle empowers the industrial product with an adaptive capacity that **unlocks completely new scenarios**. For instance, the possibility to **remotely steer and optimise the behaviour and performance of the machine according to the operating conditions.** Doing so, the DPB provides the basis for the **Manufacturing as a Service (MaaS) business model.**

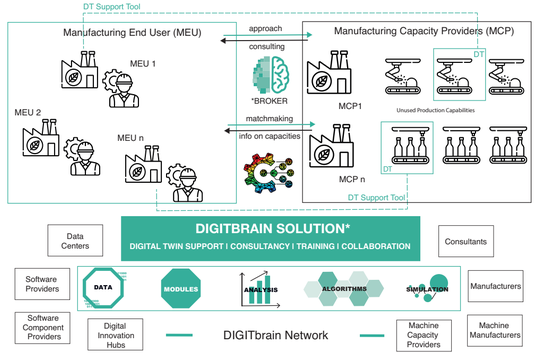


MANUFACTURING AS A SERVICE

ENABLING REMOTE ON-DEMAND PRODUCTION BY DEMOCRATIZING MANUFACTURING CAPACITIES

The **MaaS business model** is intersting for manufacturers and manufacturing machine providers alike, as it will enable them to **create additional revenue streams and be more competitive turning their CapEX into OpEX.**

Manufacturers benefit by ourtsourcing parts of their production which they can remotely monitor and validate through digital twin-based solutions.
Manufacturing machine providers will obtain the opportunity to open up a new business model by monetizing their unused capacity and licensing the digital twin solution related to their equipment rented.



Do you want to learn more about the benefits of the Digital Brain?

Let's get into a conversation!

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