CHANGE2TWIN:
Post project sustainability approach

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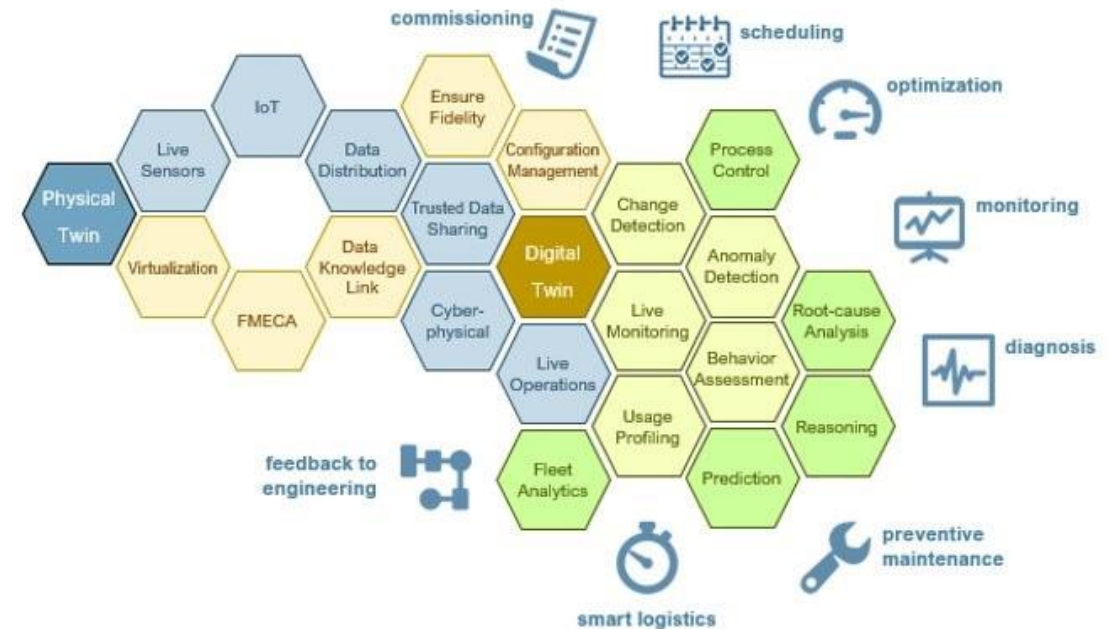HORIZON 2020

Digital Twin for every manufacturing SME!

Change2Twin is a European project which supports manufacturing SMEs in their digitalization process by providing Digital Twin solutions. The concept of Digital Twin is one of the big game-changers in manufacturing and allows companies to significantly increase their global competitiveness.

CHANGE2TWIN

What is a Digital Twin?

A digital twin is a digital replica of an **artefact** (product, machine...), **process** or **service**, which is so accurate that it can be used as **basis for taking decisions**.

The digital replica and the physical world are often **connected by streams of data**.

Contractual numbers

- Duration: June 1, 2020 – November 30, 2024 (54 months)
- Funding: ~ 8 M€
  - ~ 2.38 M€ used for open call experiments (Cascading funding)
- Partners:
  - 11 core partners
  - 8 partners for pilot experiments two first year, some with continued role
  - ~ 61 Linked Third Parties through Open Call Experiments (FSTP)

Partners

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Core partners

- SINTEF, Norway
- TTTech, Austria
- BOC, Austria
- FundingBox, Poland, Spain
- TNO, The Netherlands
- University of Bologna, Italy
- CloudBroker, Switzerland
- Association Images and Reseaux, France
- Poznan Supercomputing and Networking Center, Poland
- clesgo, Germany*

Pilot partners

- SPS, Germany
- Cordis, The Netherlands
- UNIT040**, The Netherlands
- Author**, The Netherlands
- Additive Industries, The Netherlands*
- CT-Ingenieros**, Spain
- AETNA, Italy
- Graphenstone, Spain

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* From June 2023

** Activities after May 2022

Success stories

Pilot experiment

- Space structures*
- AETNA/Robopac*
- Additive industries*
- Graphenstone

Assessment experiments

- Up to 10€ funding
- 19 assessment experiment 2021
- 14 assessment experiment 2022

Deployment experiments

- Up to 90€ funding
- 10 deployment experiments 2021/22
- 15 deployment experiments 2023/24
- Videos*

*From Change2Twin YouTube channel: https://www.youtube.com/@change2twinproject365/videos

DTA/EDIHs changed the landscape

- The original Change2Twin sustainability plan (2019) was to support SMEs through a cross-Europe network of DIHs

- In 2022 the call for EDIHs were launched
  - DTA has a support role for the EDIHs
  - More than 100 EDIHs target Digital Twins

- However,
  - EDIHs are funded to address companies in their region
  - Minimal incentives for cross-region cooperation
  - Several Change2Twin Beneficaries are partners/closely related to EDIH

Change2Twin sustainability assets

- Network:
  - Community of Digital Twin Certified DIHs (55 DIHs, 21 countries)
  - Network of competence centers and companies
  - LinkedIn Channel with 1.100+ followers
  - Strong sustainability ambitions among partners
- Website/marketplace with digital contents
  - Position papers, brochures, white papers
  - Open call results and lessons learned
  - YouTube channel with tech talks, success stories, tutorials…
  - A downloadable package for establishing local marketplaces
  - Digital Maturity Assessment Tool
  - Seven steps to Digital Twinning

Revised sustainability approach

- Connect to EDIH Thematic Working Group (TWG) on Data in Manufacturing
  - Make relevant assets from Change2Twin available to the TWG
  - Contribution on Digital Twin challenges, technologies & best practices
  - Initiative through the EDIH Nemonoor where the Change2Twin coordinator is a partner
- Offer the Change2Twin digital infrastructure (clesgo's Agora) as a resource for augmented community cooperation (e.g., for projects, EDIH Thematic working groups and their subgroups)

Status: Digital Infrastructure

- Work started addressing:
  - Support of multiple linked/not linked communities, subcommunities and project on clesgo's Agora. A community could be:
    - A H2020/HEU project or some group/,cluster i.e., a EDIH Thematic Working Group
  - Development of terms-of-use planned to start soon
    - Between the end user and the Agora
    - Between communities and Agora
    - FAQ/Guidance document for community operators

- The parallel I4MS projects Pulsate and DIGITbrain (ended) also use clesgo's Agora.
  - We envisage that the above work will facilitate close post-project cooperation

Any questions? Comments?

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Thank you for your attention!