



DIGITBRAIN

# Digital Twins for Manufacturing

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DIGITbrain has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952071



# The DIGITbrain consortium



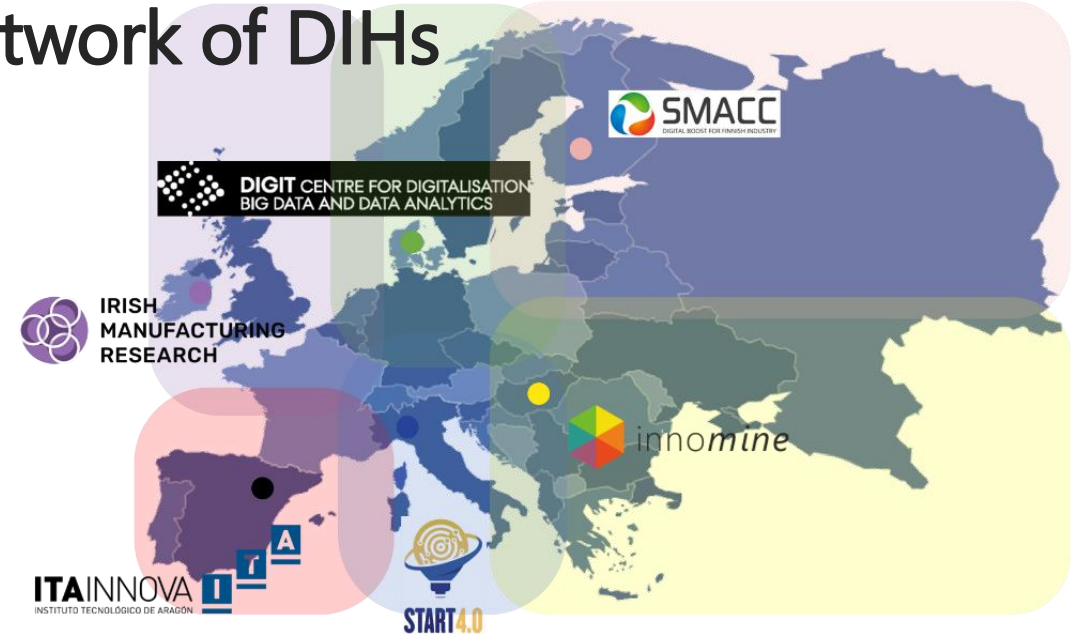
## Core technical and administrative partners



## Experiment partners



## Network of DIHs



# Challenge

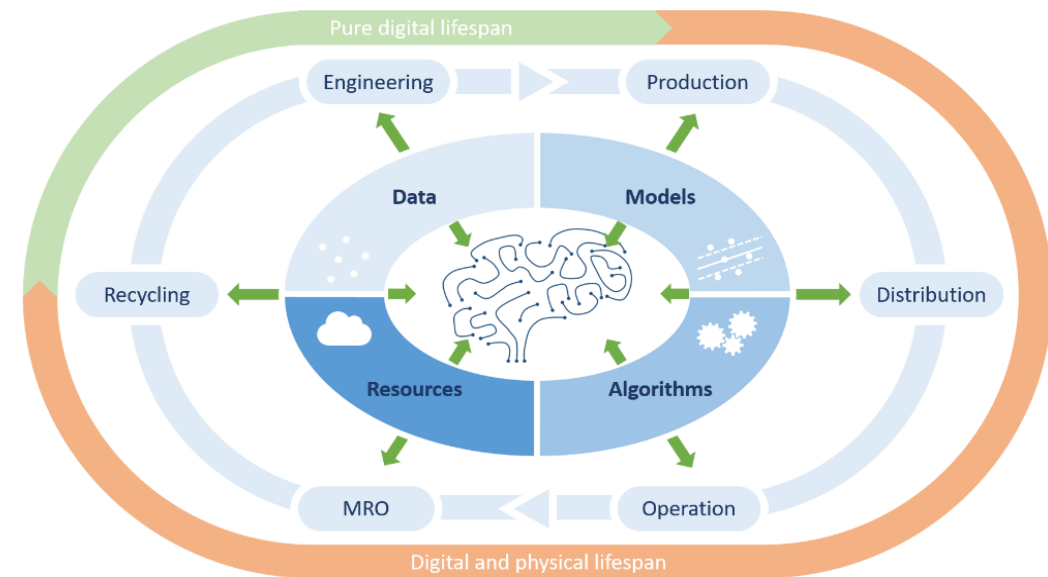


- DIGITbrain main challenge

- "...to enable customised industrial products and to facilitate cost-effective distributed and localised production for manufacturing SMEs..."

- How?

- "...by means of modelling, simulation, optimisation, analytics, and machine learning tools to augment the concept of digital twin with a memorising capacity..."




# DIGITbrain in a nutshell

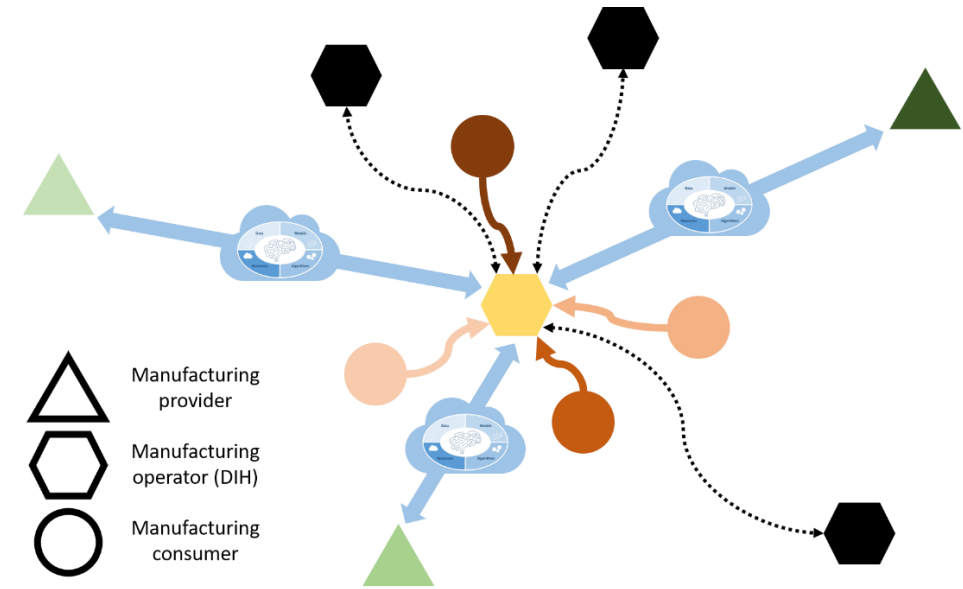
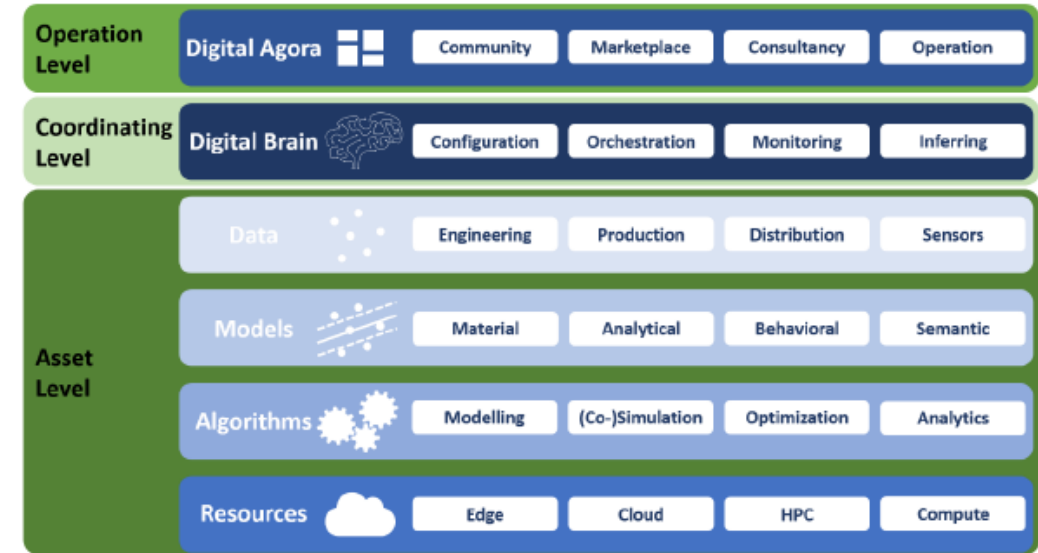


- Extend the Digital Twin concept with memorizing capacity to cover the whole product lifetime
  - Accelerate adaptation of manufacturing and products to changing conditions
  - Facilitate flexible manufacturing to strengthen competitiveness
  - Enable personalized manufacturing in an affordable way
- Democratize technology access for manufacturing SMEs

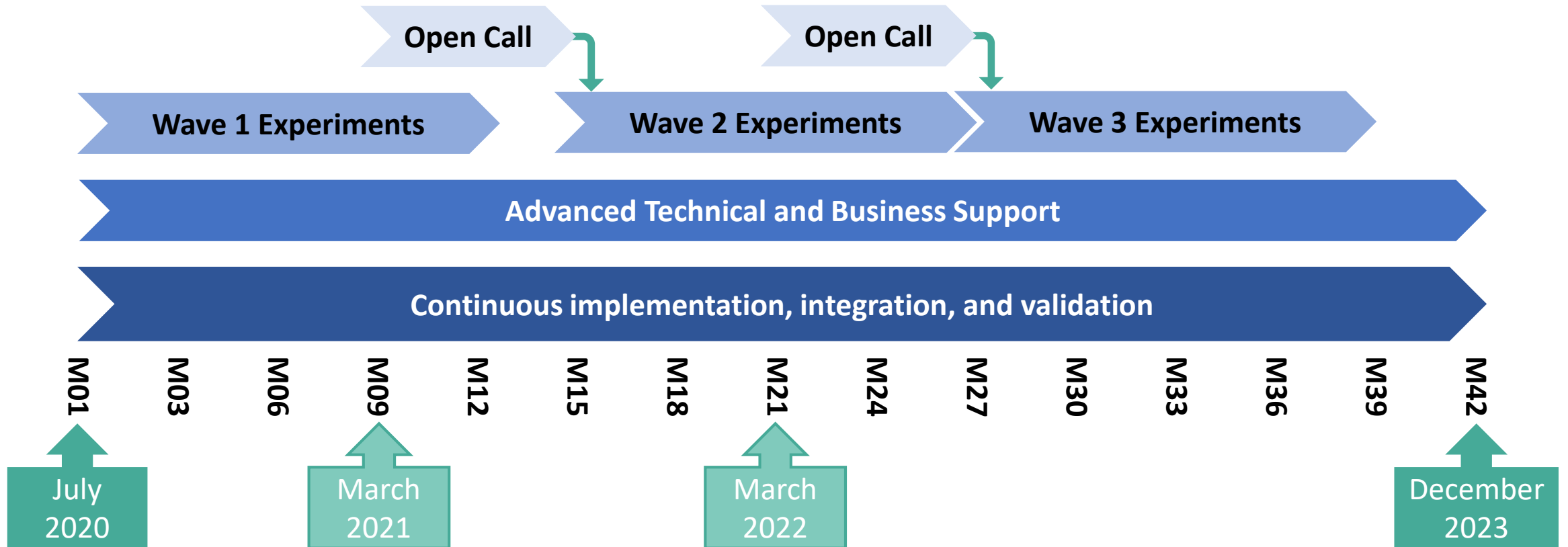


# DIGITbrain objectives

1. To implement the Digital Brain concept
  - To configure and orchestrate data, models, algorithms, and resources
2. To develop MaaS business model
  - To be implemented by the DIHs
3. To augment the capabilities of the  Marketplace
  - Integrating Digital Brain concept and MaaS business model
4. To conduct three waves of experiments
  - To validate the project results: 1 internal, and 2 Open Calls
5. To evangelise the manufacturing community
  - On the benefits and impact of MaaS – DIHs involvement



# DIGITbrain timeline





# DIGITbrain Open Calls

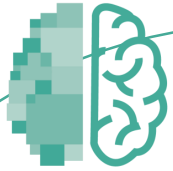
- 2 Open Calls
- Number of experiments: 14 (7 per Open Call)
- Budget: 1 400 000 € (≈100K€ per experiment)
- Who can participate?
  - End users (manufacturing companies – SMEs and mid-caps)
  - Independent Software Vendors (ISV) – SMEs and mid-caps
  - Engineering consultants – SMEs and mid-caps
  - Research organisations
  - High-Performance Computing (HPCs)
  - Digital Innovation Hubs

## Open Calls timeline

Open Call (OC)	Launch	Execution
<b>OC1</b>	March 2021	September 2021 – August 2022
<b>OC2</b>	March 2022	September 2022 – August 2023



# DIGITbrain vs Change2Twin



## DIGITBRAIN

- Support SMEs in the uptake of **Digital Twin Technology**
- Development of **Digital Brain**, covering **whole product lifecycle**
- focusing on DIH network to provide local support
- **2 Open Calls**, up to **100K€** for each of **14 cross-border experiments** (1 end user SME & 1 Technology Provider / DIH)
- Providing opportunity for further integration into a **Pan-European Marketplace & Community** for digital Engineering and Manufacturing (Simulation / ML / AI / DT)

## CHANGE2TWIN

- Support SMEs in the uptake of **Digital Twin Technology** in Manufacturing
- **DIH activation** to provide support to local SME
- **4 cross-border** pilot experiments
- **2 open calls** for 10K€ assessment vouchers for SMEs (49 in total)
- **2 Open Calls** for 90 K€ deployment vouchers for experiments combining manufacturing and technology provider SMEs (21 in total)
- **online Marketplace** as meta-platform & eco-system for technology providers

Cloudi  
Facturing

emGORA  
digital workspace for online engineering







DIGITBRAIN

Thank you for your attention!

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# DIGITbrain - details

- Topic: H2020 – ICT-03
- Type of action: Innovation Action
- Number of partners: 36
- Estimated project cost: €9,392,812.09
- EU contribution: €8,340,511.48
- Start date: 1<sup>st</sup> July 2020
- Duration: July 2020 – December 2023 (42 months)
- Grant Agreement No. 952071

