

TERALAB

Data Science for Europe

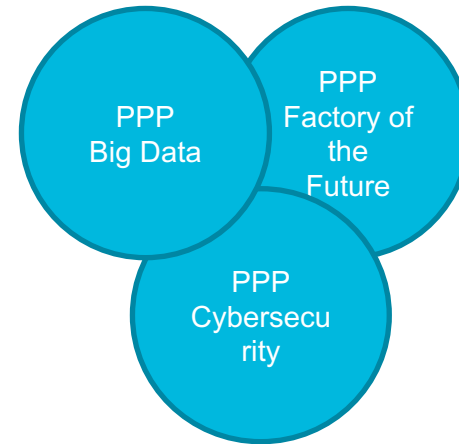


European Awards

2016 – 2017 - 2018 : The single labelled French I-Space



2019 : TeraLab is one of the 30 AI DIHs selected by the commission in January 2019 in Europe (Among 150 candidates)



Connected Factories
49 partners, 17 countries
Duration : 36 months
Kick off : 01/02/2018



Advancing Europe through collaboration in AI

AI On Demand Platform
79 partners (WP leader) , 21countries
Kick off : 01/01/2019
Duration : 36 months



Manufacturing Industry DIH
21 partners , 12 countries
Kick-off : 01/10/2017
Duration : 36 months

Joint AI Platform: IMT-TUM TeraLab based platform



11

Research Projects



100+

Researchers, PhD,
Engineers



1

Joint Technological
Platform for AI & Data



20+

Industrial Partners

TERALAB
Data Science for Europe

Extension and Enrichment of the TeraLab platform with TUM researchers:

- Enrichment of the TeraLab Market Place of AI APIs, to allow for research results to be available, while related IP keeps being protected
- Research Data Access
- German French Sovereignty

IMT: French Hub of International Data Spaces Associations



In May 2019, on the German French Booth at VivaTech, Agreement was signed by Lars Nagel, IDSA CEO, and Philippe Jamet, IMT CEO, turning IMT into the French IDSA Hub

« sharing data is better than playing alone ! »

TERALAB
Data Science for Europe

A reference
architecture in
Europe



Technical Research Centre
of Finland
-Espoo, Finland



CZECH
TECHNICAL
UNIVERSITY
IN PRAGUE
Czech Technical University
in Prague
-Prague, Czech Republic



Technological Centre
-Bilbao, Spain



Higher Education and
Research Institution
-Paris, France



Digital Innovation Centre
-Milan, Italy



Organization for Applied
Scientific Research
-The Hague, Netherlands

BOOST

YOUR
COMPANY'S

BIG DATA & AI INITIATIVES

5

OPEN INNOVATION

Reinforce & enlarge your data community with startups and partners through challenges in a neutral environment

EDUCATION & STUDENTS

Interact with students and create opportunities by working on real data & use cases

COLLABORATIVE RESEARCH

Connect your R&D teams with research labs to emphasis your data innovation

SANDBOX



TOOLS



DATA



INFRASTRUCTURE



SECURITY

Up to 20TB Ram – 520 cores
1 PB Storage

TERALAB
Data Science for Europe

A TRUSTED R&I
BIG DATA & AI
PLATFORM

SERVICES



LEGAL



ANALYTICS



ARCHITECTURE



RESEARCH

TeraLab staff +
Startups & academics

TRUSTED & SOVEREIGN

- Adaptive security level
- Stated control facilities
- No private shareholders
- No conflict of interests

NON-PROFIT

- Pre-established priced
- NO hidden cost
- ~80% market price

EASY TRANSITION

Your
setup in
TeraLab



Your setup
in your
datacentre

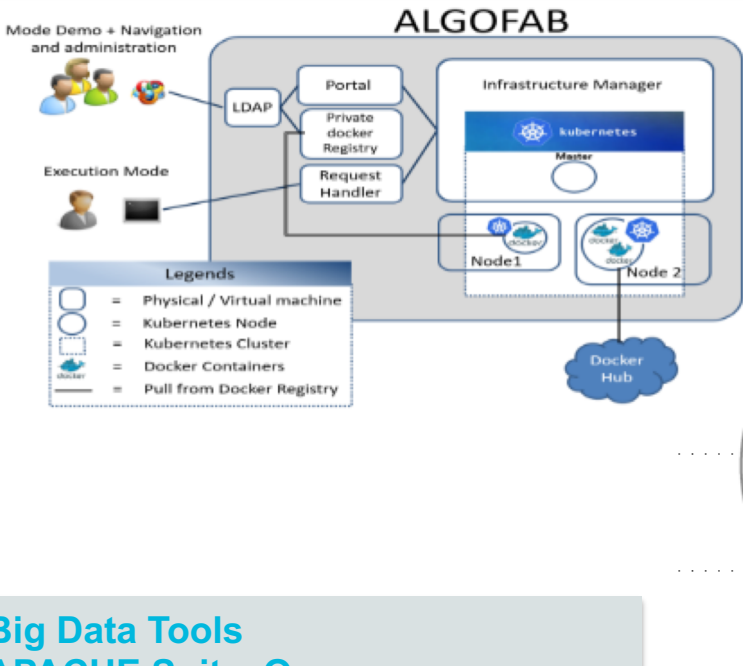
SUCCESS STORIES

More than 60 projects hosted !



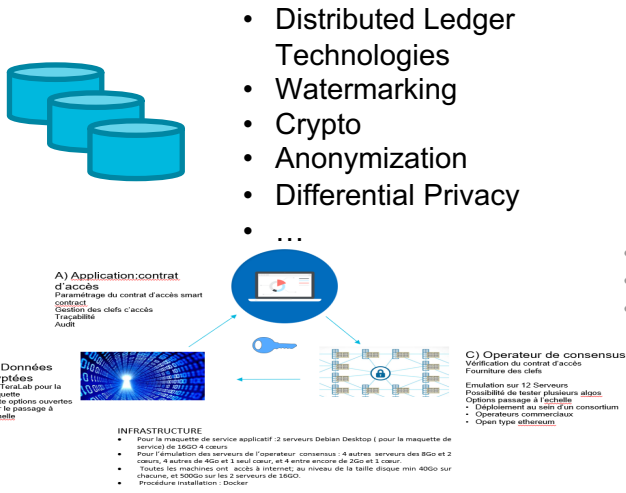
STATE OF THE ART, AND BEYOND

Algofab : a ready to use AI toolbox



Data & Data Trust Technologies

Secured & Sovereign workspaces



Big Data Tools APACHE Suite, Open source And more



State of the art infras

In Memory Analytics

GPU for Deep Learning



Distributed Analytics

- ❖ **Data innovation community engagement**
Large network of Data Owners ,Data Users and Data Innovators
- ❖ **Support to use case formalization**
- ❖ **Support to architecture specifications**
- ❖ **Support to legal and regulatory provisions for your project**
- ❖ **Trusted sovereign neutral platform to host your data and technical development**

From proof of concept to 'proof of ROI' as a contribution to valorization and industrialization of project results

❖ **Research community engagement**

Labelled at national level (recommandation in France IA & Mission Villani), regional level (AI plan from Paris Region) and European level (DIH, I Space, high level success rate in H2020)

❖ **Get Access to real data to validate research**

Deploy collaborative research projects

❖ **Get Access to a secure platform, neutral and sovereign, to trustfully share data with your industrial partners**

❖ **Support from the TeraLab Team to help you get access to data and computing power.**

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→ <https://www.teralab-datascience.fr/>

RIA - BOOST 4.0 : “Big Data Value Spaces for Competitiveness of European Connected Smart Factories 4.0”

Duration: 2018-2021

50 partners, 17 countries, 13 pilot factories

Big Players (Siemens, VW, Volvo, Fiat, Philips, OTIS, Gestamp, Whirlpool, ...)

Topics: predictive maintenance, logistics, smart planning, connected production & Big Data framework including Cybersecurity

TeraLab identified as the secured infrastructure

IA - MIDIH : “Manufacturing Industry Digital Innovation Hubs”

Duration: 2017-2020

21 partners, 11 countries

Topics : funding for SMEs experimentations), predictive maintenance, cutting tools technologies, logistics)

IA project : Cascade Funding for 3 open calls.

TeraLab is the MIDIH Center of competences in Trust Management & Cybersecurity

IA - AI4EU: “Artificial Intelligence for Europe”

Duration : 2019-2022

80 partners

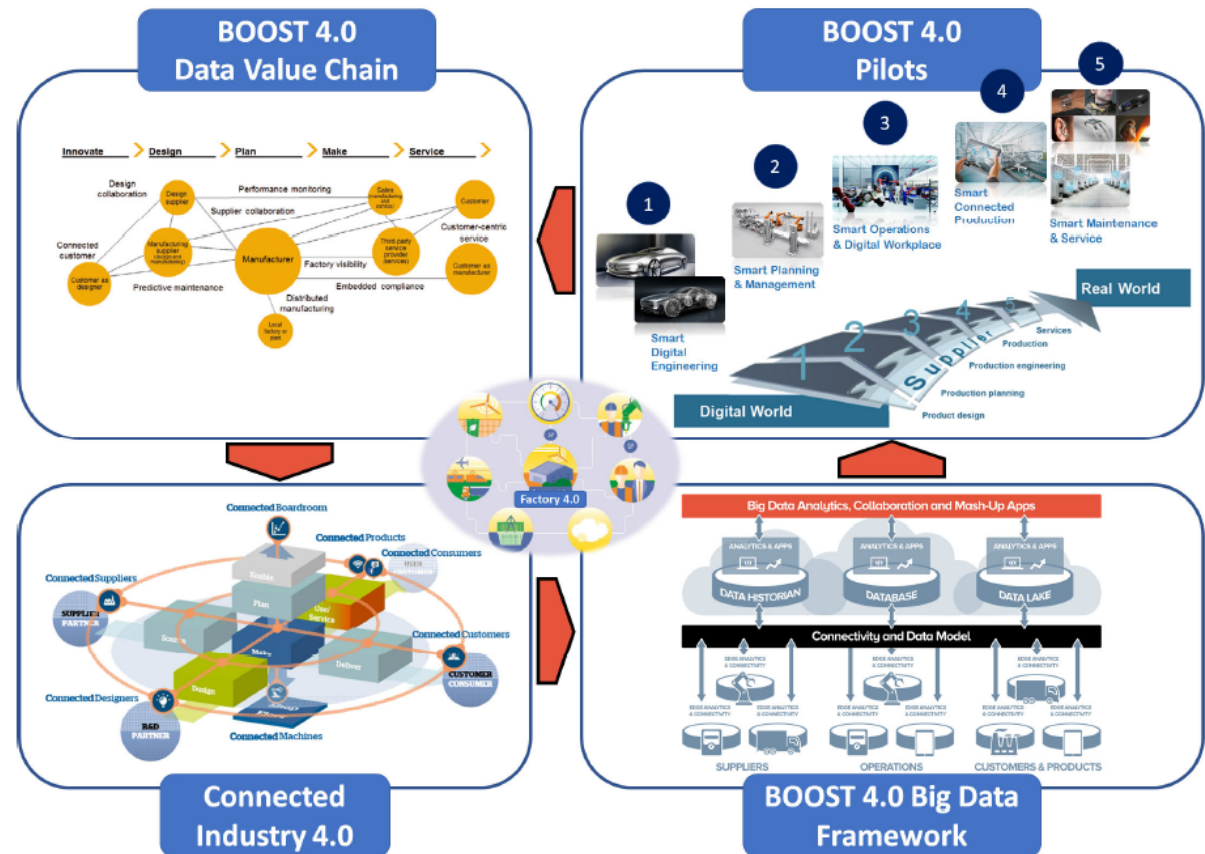
Topics: AI4EU is mainly to build an AI community in Europe. It will build a comprehensive European AI-on-demand platform

TeraLab as a coordinator of WP2 “platform design and implementation”

BOOST 4.0 will demonstrate how European industry can build unique strategies and competitive advantages through big data across all phases of product and process lifecycle (engineering, planning, operation, production and after-market services).

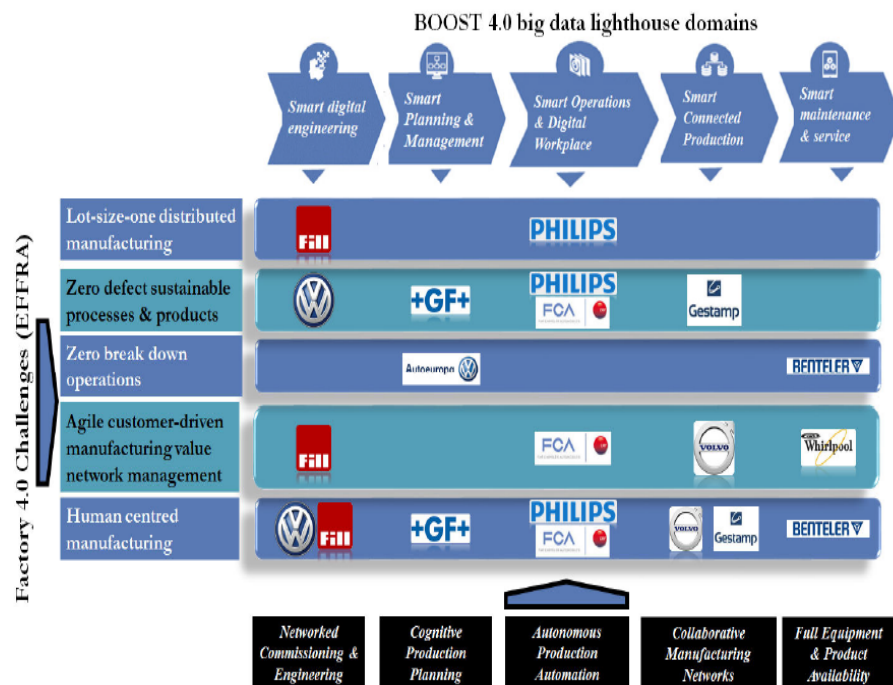
The project will enhance:

- Enhance operational efficiency
- Smart planning & management
- Optimize smart products user experience
- Create new Business models



→ 13 European 4.0 lighthouse factories to support national and European manufacturing, big data and ICT ecosystems

→ 49 partners, 17 countries



BOOST 4.0 big data enabled manufacturing capacities (Big data transformation)

TERALAB is the BOOST secure Big Data and AI platform to accelerate innovation & Research

→ First use case with Whirlpool in 2018

MIDIH Will support the Digitization of European Industry. MIDIH is a network of Competence Centers and Digital Innovation Hubs providing them with:

- **Technological services** including access to CPS/IoT platform, support to customization and project design
- **business services**: incubation, business acceleration, demand-offer matchmaking and brokerage, access to market, access to finance
- **skill building services**: serious and role games, participative lessons and webinars, virtual experiments in physical teaching factories, professional courses for industry professionals and executives

TeraLab is a competence center in the MIDIH 4.0 project

- Major expertise is in Trust Management & Cybersecurity (IT security, anonymization, encryption, tracking and auditability, data governance, smart contracts, legal provisions).
- TeraLab data platform, in a sovereign, trusted and secure environment, provides technical and business support to use case specifications, data acquisition / interoperability, data management / analytics OS solutions.

European AI
 Research &
 Innovation
 community
 for
 Society & European
 values,
 Business &
 Economy



Create an AI platform to access to :
 Information, Community, Knowledge and Data sets, Toolbox and Resources