

INTRODUCTION TO AI4DI

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AI4DI has been accepted for funding within the Electronic Components and Systems For European Leadership Joint Undertaking in collaboration with the European Union's H2020 Framework Programme (H2020/2014-2020) and National Authorities, under grant agreement n° 826060.

Artificial Intelligence for Digitalizing Industry



ECSEL AI4DI stands for "Artificial Intelligence for Digitizing Industry"

AI4DI Industry Sectors and Applications

AI4DI's mission is bringing AI from the cloud to the edge and making Europe a leader in silicon-born AI by advancing Moore's law and accelerating edge processing adoption in different industries through reference demonstrators.

AI4DI INDUSTRIAL SECTORS



Collaborative Requirements & Transformation of 5 diverse industrial sectors

Machinery



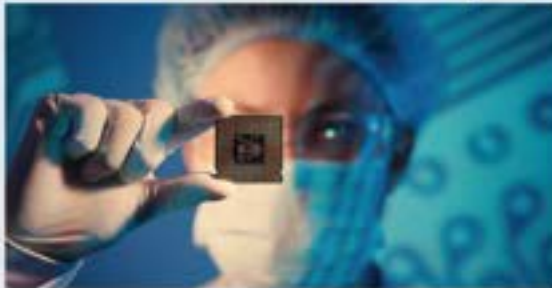
Automotive Manufacturing



Collaborative



Semiconductor-Industry



Beverage Industry & Agriculture

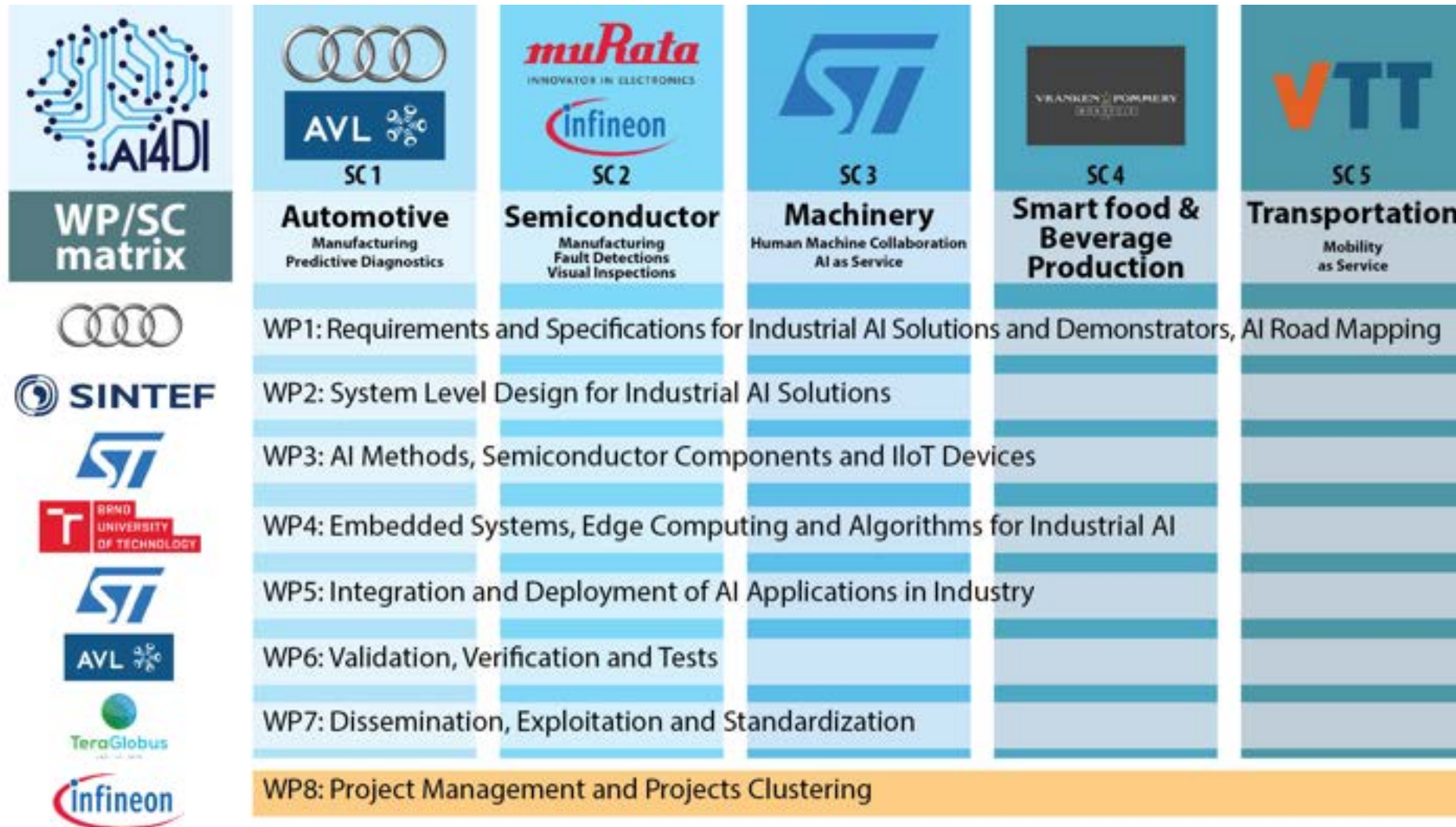


Transportation



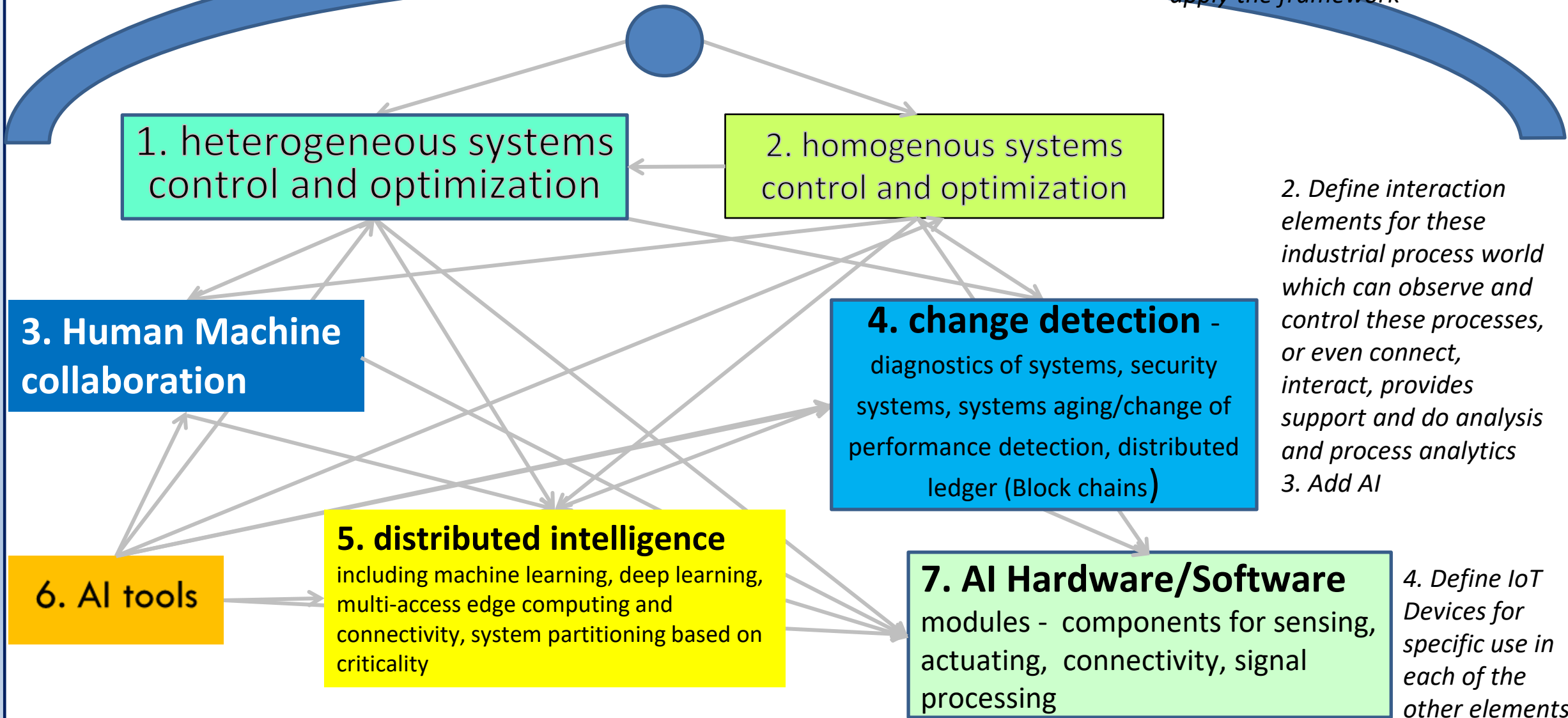


AI4DI WORK PACKAGES AND SUPPLY CHAINS



FRAMEWORK OF ELEMENTS (KEY-TARGETS) TO IMPLEMENT AI IN THE INDUSTRY

1. Divide the industrial world in the most relevant parts which should apply the framework

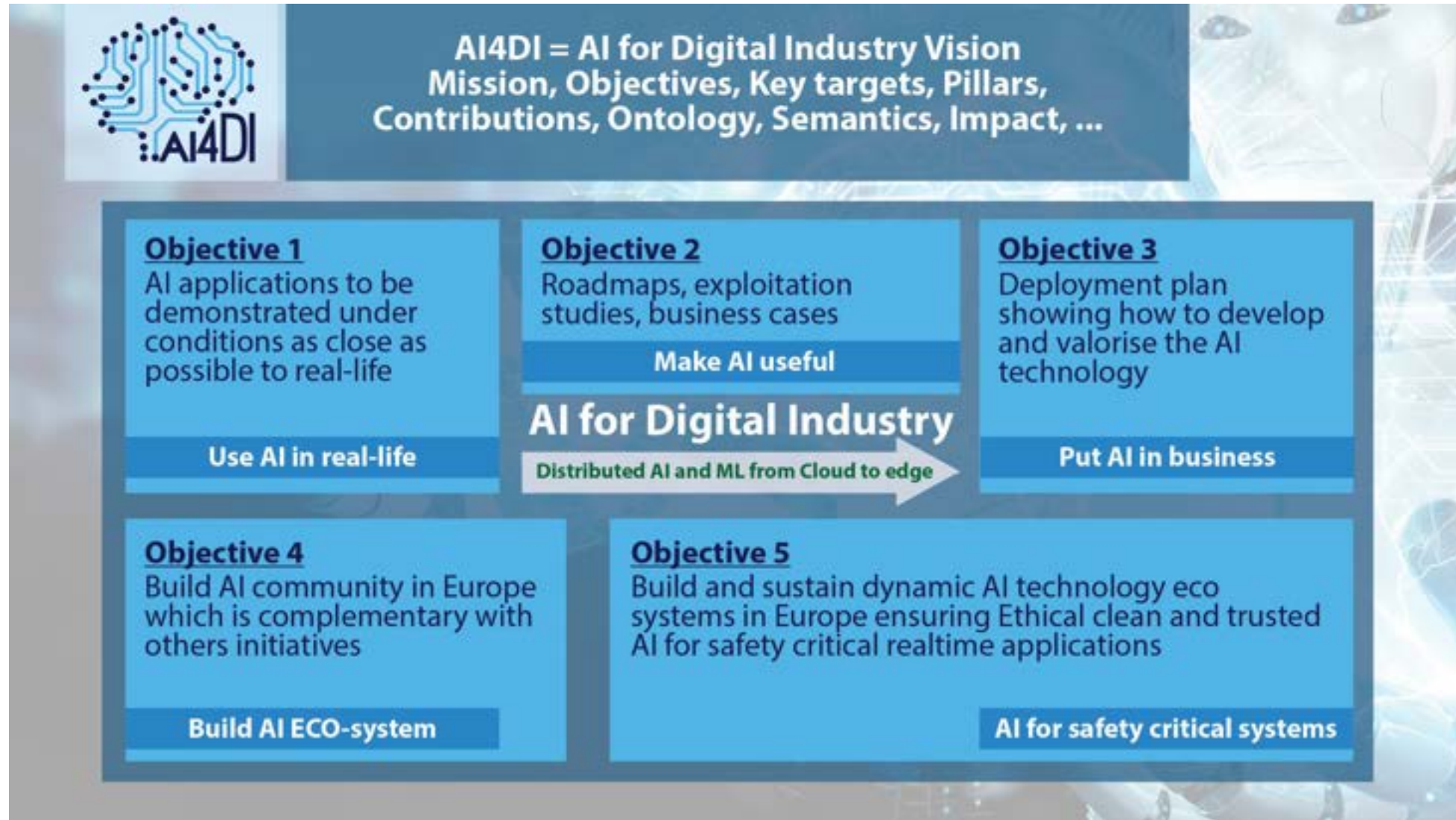


2. Define interaction elements for these industrial process world which can observe and control these processes, or even connect, interact, provides support and do analysis and process analytics

3. Add AI

4. Define IoT Devices for specific use in each of the other elements

OBJECTIVES





Vision: **Silicon-Born-AI**

For Accelerated AI in Embedded Control for Edge Computing and IoT/IIoT devices in industry



Dedicated AI methods for the industry according to the AI-attributes

To tackle big amounts of data out of the real industrial world



Dedicated AI Software on improved AI hardware architectures for the industry

Enhanced connectivity for fast communication



Dedicated CPU + AI in Silicon components

Silicon-Born-AI

Moore Law ++ AI
For native AI computing

More Moore ++ AI
For native AI algorithm



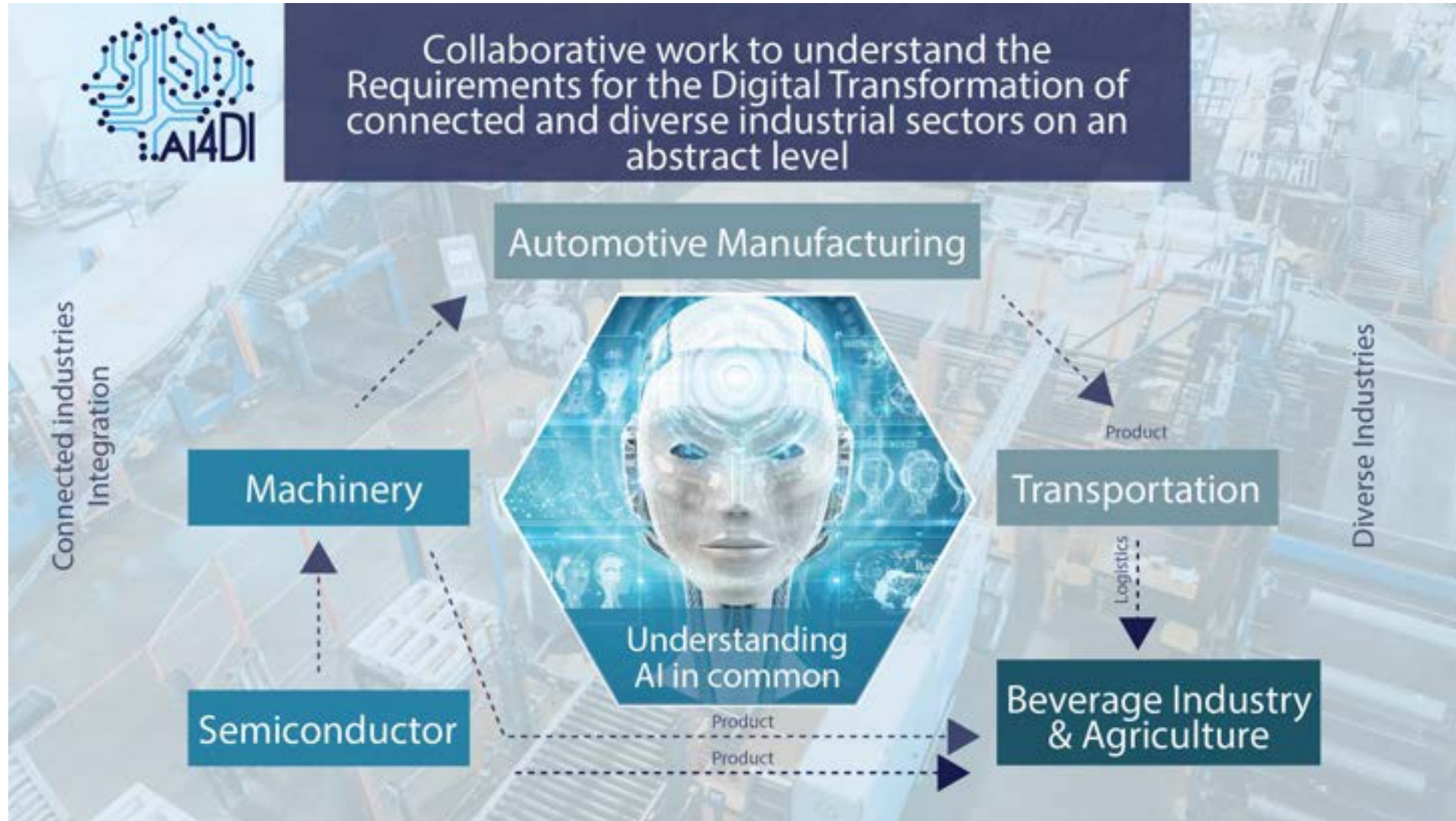
Dedicated Sensors + AI in Silicon components (sensors, MEMS)
Sensing and preparing the edge data

Silicon - Born - AI

More Moore ++ AI
For native AI perception and actuation

Accelerated AI on every level

COLLABORATIVE WORK



AI for Digital Industry



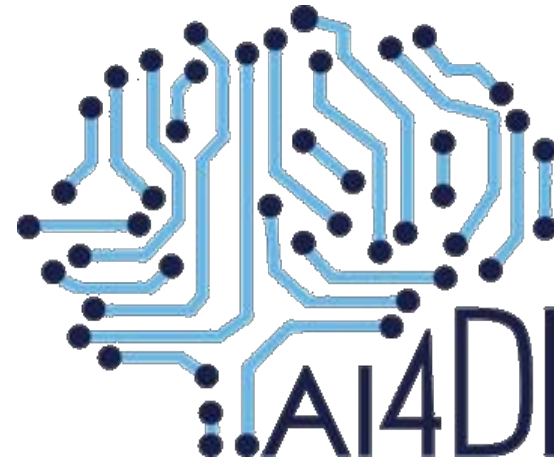
Manufacturing | **Oil & Gas Chemistry
Pharma Semi Single
process** | **Semiconductor** | **Silicon Industry**

**We accelerate the Digital revolution
in the Industry with Silicon-AI**

Moore ++ AI
For native AI computing

More Moore ++ AI
For native AI algorithm

More than Moore ++ AI
For native AI perception and actuation



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