

# INTELLIGENT PRODUCTS & SERVICES

FOR CONNECTED  
HEAVY EQUIPMENT

Our vision for the future



# HOW TO BUILD CONNECTED SERVICES OF YOUR HEAVY EQUIPMENT THROUGH SOFTWARE & TECHNOLOGY?

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# SHAPE YOUR FUTURE TRANSFORMATION IN THE HEAVY EQUIPMENT

Connected services are reshaping heavy equipment industry boundaries and driving top-line growth in a new era of digitalization.

How to (re)define your business and Go-to-market strategy, and design / build / launch connected services in your heavy equipment portfolio?

How to transform traditional products into sustainable services through innovative business models, customer-centricity, and an agile development approach?

## MAIN SECTORS CONCERNED BY SERVITIZATION JOURNEY

**HEAVY VEHICLES |  
CONSTRUCTION ENGINES |  
MINING & EXTRACTION |  
AGRICULTURE |  
MATERIAL HANDLERS |**



# HEAVY EQUIPMENT PLAYERS NAVIGATE IN AN INCREASINGLY COMPETITIVE MARKET WITH A CHALLENGING PARADIGM SHIFT

## COST PRESSURE

Increasing bargaining power of both suppliers and customers demands ever greater financial efforts from heavy equipment manufacturers.

**In 2021, farm machinery prices increased year-over-year by 11,7%.**

[Source : aem.org](https://www.aem.org)

## RAW MATERIALS RAREFICATION

Heavy equipment companies must anticipate the arrival of numerous global crisis which will affect the supply of raw materials, spare parts, and other products needed.

**About 45% of manufacturing actors in Asia declared that struggled sudden materials shortages were a common issue in 2020.**

[Source : mckinsey.com](https://www.mckinsey.com)

## FROM PRODUCT TO SERVICE EVOLUTION

The market is increasingly driven by operators' demand for software, data or tech driven services to enhance the product experience including new IOT connectivity (5G, LPWAN technology).

## SUSTAINABLE BY DESIGN

Heavy equipment players are already integrating sustainability at early product development stages in order to have more flexibility and to face the strengthening of the environmental legal framework.

**Volvo Penta has a range of Stage V motors. Fitted with an exhaust aftertreatment system (EATS) which enables the motor to reduce emissions.**

[Source : leonard.vinci.com](https://www.leonard.vinci.com)

## COMPETITIVE ECOSYSTEM

Large market players are increasingly investing in innovation and connected products to improve their competitive advantages, forcing other players to transform rapidly.

**Caterpillar, Komatsu, Hitachi, JCB and Volvo will account for 65% of the total connected heavy construction machines that will be shipped during 2018-2025.**

[Source : counterpointresearch.com](https://www.counterpointresearch.com)



# GROWING CONSTRUCTION MARKET

Global market for heavy equipment is expected to reach over **273 BILLION** US \$ in 2030

Source: Statista, Heavy Construction market size, 2022

# LEADERS ARE PAVING THE WAY

Regarding their recent investments and partnerships,

**CATERPILLAR, KOMATSU, HITACHI, JCB AND VOLVO**

will represent 65% of the total connected construction machines

Source: Counterpoint, Global IoT Construction Equipment Forecast: 2018-2025

# SIGNIFICANT CHALLENGES FACED IN THE INDUSTRY

For example, in the UK construction sector, the average cost of raw materials

**INCREASED BY 24%** from 2020 to 2021

Source: BEIS, August 2021

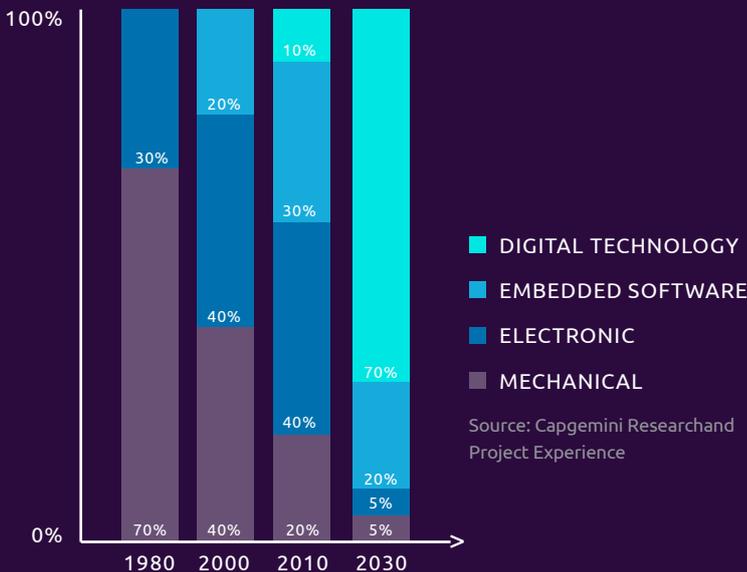
# INCREASE OF CONNECTED PRODUCTS IN THE INDUSTRY

**6.8 MILLION**

construction machines with embedded connectivity will be sold between 2018 and 2025.

Source: Counterpoint, Global IoT Construction Equipment Forecast: 2018-2025

REVENUE SPLIT



Source: Capgemini Research and Project Experience

# REVENUE GENERATION SHIFT IN HEAVY EQUIPMENT INDUSTRY



# MANUFACTURERS CAN CREATE COMPETITIVE ADVANTAGES BY CAPITALIZING AND FOCUSING ON CONNECTED PRODUCTS AND SERVICES

## GENERATE NEW REVENUES

Heavy equipment players must adopt new digital driven business models relying on connected products and services.

## OFFER CUSTOMER-CENTRIC SERVICES

Customers expect from heavy equipment services personalization, customization, and real-time data processing.

## SWITCH FROM HARDWARE TO SOLUTION SUPPLIERS

Identify high-value opportunity areas and assess the readiness of processes and organization.

## LEVERAGE TECHNOLOGY

Heavy equipment players must leverage connectivity and data platforms to capture insights and offer new services.

# CONNECTED PRODUCTS & SERVICES MARKET TO ADDRESS



# HEAVY EQUIPMENT USERS COULD IMPROVE THE WAY THEY WORK BY USING DATA COLLECTION FROM CONNECTED PRODUCTS



## ACTIVITY IMPROVEMENT

### 50% INCREASE

#### OF GLOBAL PRODUCTIVITY<sup>1</sup>

« For construction companies which invest in digitization and use new materials and advanced automation »

### 20% REDUCTION

#### OF CONSTRUCTION COSTS<sup>2</sup>

By using Building Information Modeling (BIM)

### \$370 BILLION

#### ECONOMIC IMPACT BY 2025<sup>3</sup>

Increasing productivity, safety and reducing waste thanks to automation/robotics and monitoring real-time performance

### \$428 BILLION

#### IN SAVINGS BY 2025<sup>4</sup>

Integrated sourcing, data exchange, connected workforce...

Reduction of almost 5% of the workforce

## POTENTIAL SERVICES TO BE USED

EQUIPMENT THEFT PREVENTION  
& RECOVERY

ACCIDENT RECONSTRUCTION

INSURANCE UNDERWRITING

PREDICTIVE MAINTENANCE

FLEET MANAGEMENT & OPTIMIZATION

FUELING SERVICES

LEAD GENERATION

ECONOMIC TREND ANALYSIS  
FOR FINANCIAL SERVICES

<sup>1</sup> McKinsey, Reinventing Construction: A route to higher productivity

<sup>2</sup> Oliver Wyman, Construction Machine in the Digital Age

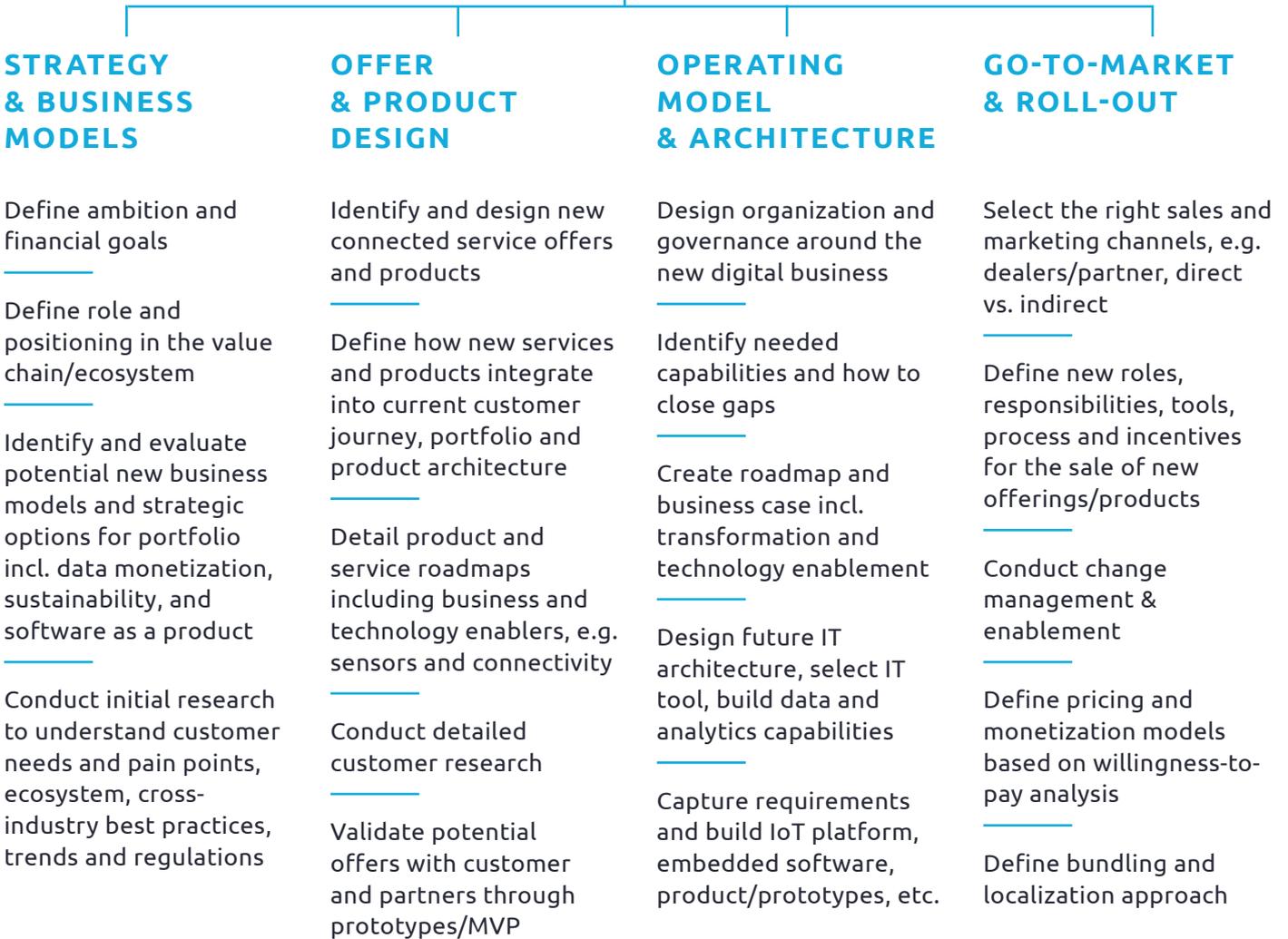
<sup>3</sup> McKinsey, How digital innovation can improve mining productivity

<sup>4</sup> World Economic Forum. Digital Transformation Initiative



# WE HELP CLIENTS UNLOCK NEW GROWTH POTENTIAL BY DELIVERING END-TO-END SOLUTIONS FOR THE IMPLEMENTATION OF INTELLIGENT OFFERINGS

## FROM STRATEGY TO MARKET ROLL-OUT



## OPERATIONS (E.G.: BPO, HOSTING, INFRASTRUCTURE)



# HEAVY EQUIPMENT COMPANIES CAN FIND ANSWERS FOR MANY CHALLENGES IN ORDER TO SEIZE THE OPPORTUNITY AND CREATE COMPETITIVE ADVANTAGES

## 1. ECOSYSTEM & PARTNERSHIP

How to transition from product to service offer and to position in the digital ecosystem?

## 2. NEW SERVICES & DATA MONETIZATION

How to leverage connected products, monetize the data, sell new services and functionalities?

## 3. OPERATING MODEL, ORGANIZATION & ARCHITECTURE

Which digital capabilities do I need to deliver innovative business models and how to set-up the organization for growth?

## 4. COMMERCIALIZATION STRATEGY

How to plan my go-to-market activities, to empower my sales force and dealers to sell intelligent products and services?

## 5. CUSTOMER CENTRICITY

How to build and shape a customer-centric service portfolio, to identify and prioritize use cases with high value?



# CAPGEMINI HAS SUCCESSFULLY DELIVERED HIGH-VALUE PROJECTS FOR HEAVY EQUIPMENT CLIENTS

	CLIENT SITUATION	SOLUTION	BENEFITS
ECOSYSTEM	<b>A leading equipment manufacturer</b> in seismic data acquisition. Making a transition from «hardware» to «solution supplier”, he wants to monetize and sell the new functionalities.	Get a deep understanding of our client’s ecosystem and define the required strategy to adapt its market positioning.	Clearly map our client’s ecosystem and design the new services.
NEW SERVICES AND DATA MONETIZATION	<b>A leading cloud farm management system provider.</b> To allow farmers manage their businesses end-to-end, and to support data monetization of almost 40 000 clients.	We supported our client in developing prototypes and identifying business models with the highest viability by extensive customer research with farmers and businesses along the value chain, and by analyzing the need as well as quality of existing data.	Build the wave-based roadmap with small steps to test the market, leading to MVPs and finally full-scale products.
OPERATING MODEL, ORGANIZATION, AND ARCHITECTURE	<b>A leading heavy equipment manufacturer.</b> To strengthen its position, he launched a comprehensive transformation, positioning operational performance and responsible business commitment at the heart of its strategy.	We helped our client in the launch of an integrated Data Factory at the heart of a new operating model + a company-wide governance initiative model, including roles and responsibilities.	Launch and run in a short time several Data & AI solutions Reach large efficiency gains and cost savings in production processes.
COMMERCIALIZATION STRATEGY	<b>A leading provider of smart and sustainable load-handling solutions.</b> Making a transition from reactive to proactive services and wondering how to proactively identify and launch new services.	We supported our client in defining a 3 years transformation roadmap including the digital initiatives build-up, implementation, and commercialization strategy.	Build a transformation roadmap, prioritize the different digital initiatives, and define a commercialization strategy for the new services prioritized.
CUSTOMER CENTRICITY	<b>A leading manufacturer of agricultural and construction equipment.</b> To secure future competitiveness and growth, he decides to reorient his aftermarket solutions.	We supported our client in developing a new aftersales strategy centered around digital services and created a digital strategy including enablers and tools.	Create a cross-segment roadmap showing new revenues and investments + how to launch and monetize the new services.



# PLEASE HAVE A TALK WITH OUR EXPERTS DEDICATED TEAM THAT IS DESIGNING AND IMPLEMENTING CONNECTED SERVICES IN YOUR MANUFACTURING INDUSTRY

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As the digital innovation, design and transformation brand of the Capgemini Group, Capgemini Invent enables CXOs to envision and shape the future of their businesses. Located in more than 36 offices and 37 creative studios around the world, it comprises a 10,000+ strong team of strategists, data scientists, product and experience designers, brand experts and technologists who develop new digital services, products, experiences and business models for sustainable growth.

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