

Table of Content

Current IoT Position Telco

Introduction

Vision 3H Model McKinsey

- From Legacy
- Via Smart
- To Autonomous

5G Fieldlab – Agri IoT Strategy

- Drones
- Robotics
- Swarm Technology

PRODUCT CLOUD Smart Product Applications Software applications running on remote servers that manage the monitoring, control, optimization, and autonomous operation of product functions Rules/Analytics Engine The rules, business logic, and big data analytical capabilities that populate the algorithms involved in product operation and reveal new product insights Identity and External Integration Application Platform Security Information with Business An application development and execution environment enabling the rapid Tools that creation of smart, connected business applications using data access, systems sources manage user visualization, and run-time tools Tools that A gateway for authentication information from integrate data and system **Product Data Database** from smart, external access, as well A big-data database system that enables aggregation, normalization, connected sources-such as secure the and management of real-time and historical product data as weather, products with product, traffic, core enterprise connectivity, and commodity and business product cloud energy prices, systems such as layers social media, ERP, CRM, and and geomapping PLM CONNECTIVITY that informs product **Network Communication** capabilities The protocols that enable communications between the product and the cloud **PRODUCT** Product Software An embedded operating system, on board software applications, an enhanced user interface, and product control components Product Hardware Embedded sensors, processors, and a connectivity port/antenna that supplement traditional mechanical and electrical components

Figure 5: Technology stack of smart connected products (Porter & Heppelmann, 2014)

PRODUCT CLOUD **Smart Product Applications** Software applications running on remote servers that manage the monitoring, control, optimization, and autonomous operation of product functions Rules/Analytics Engine apabilities that p he rules, business logic and big determalytical o algorithm's involved in groduce operation and row all new pro Identity and Appli ati n Platforn An application levelopment and execution environment anable gittle ran creation of smart, connected business applications using data access, manage user visualization, and run-time tools authentication Product Data Database access, as well A big-data database system that enables aggregation, normalization, as secure the and management of real-time and historical product data connectivity, and product cloud CONNECTIVITY ork Communication commun wat insil atmeen the product The protocols t at enab and th **PRODUCT** Product Software An embedded operating system, on board software applications, an enhanced user interface, and product control components **Product Hardware** Embedded sensors, processors, and a connectivity port/antenna that supplement traditional mechanical and electrical components

Security

Tools that

and system

product,

layers

External Information sources

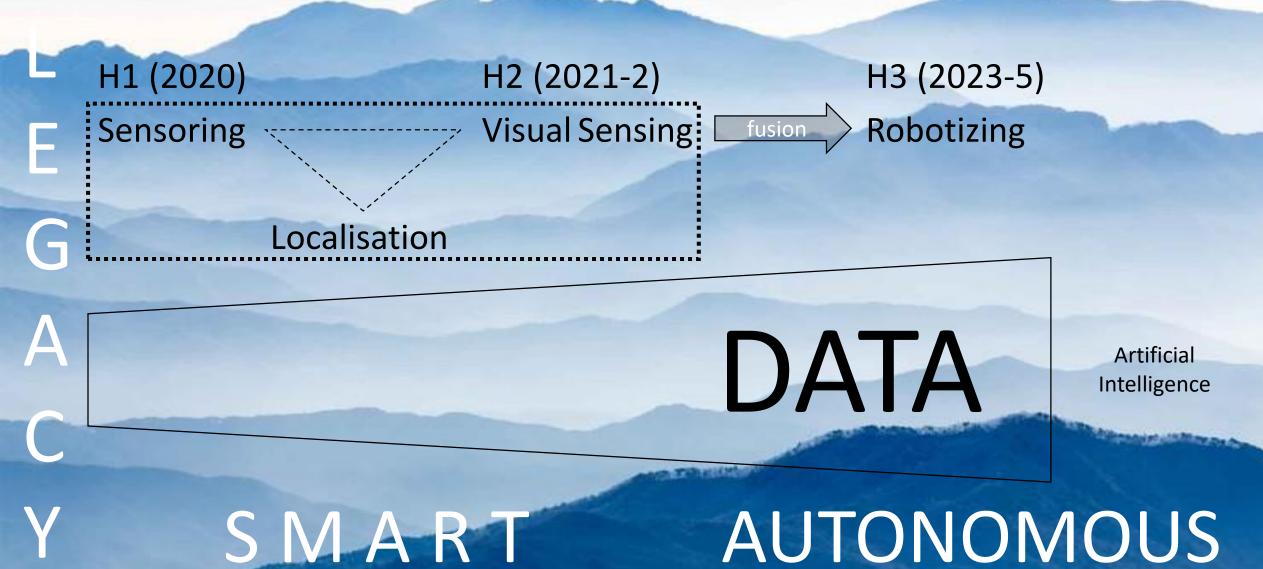
A gateway for information from external sources-such as weather. traffic, commodity and energy prices, social media, and geomapping that informs product capabilities

Integration with Business systems

Tools that integrate data from smart, connected products with core enterprise business systems such as ERP, CRM, and PLM

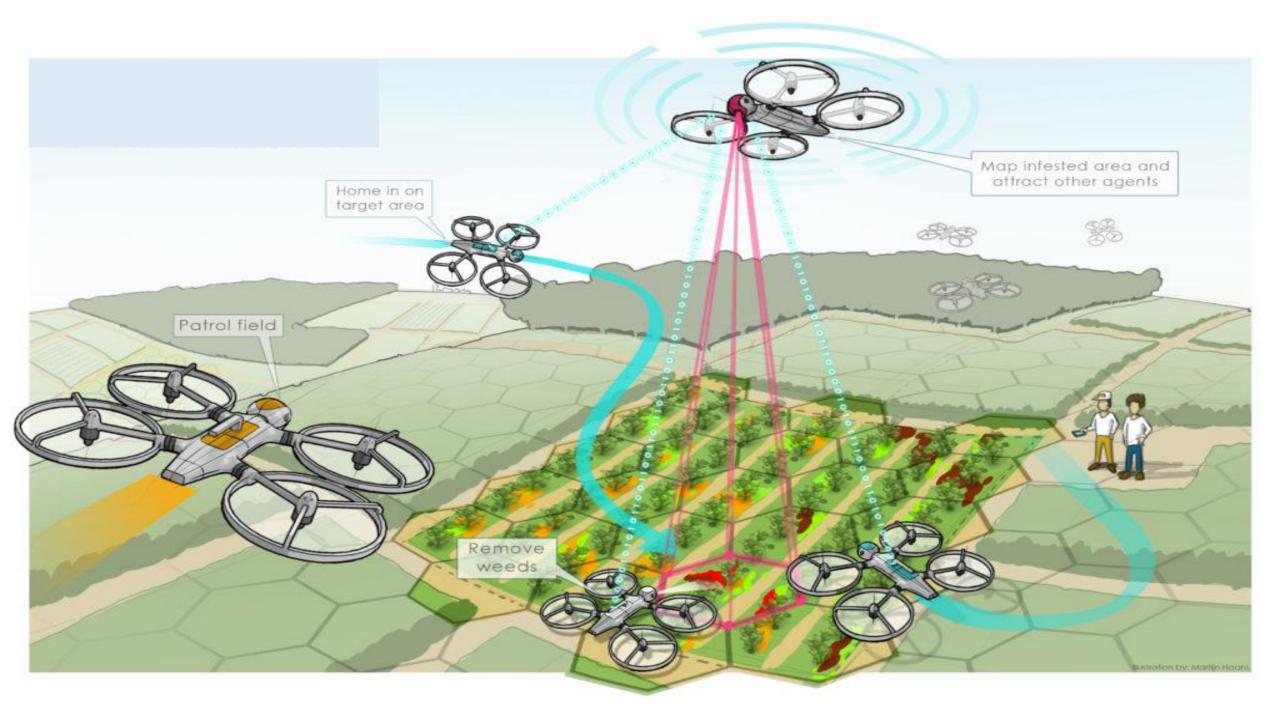
Figure 5: Technology stack of smart connected products (Porter & Heppelmann, 2014)

Three Horizons (McKinsey)











Contribute !!!

The future of food: the 5 big challenges



