

Capgemini 

# Capgemini Pioneering Intelligent Industry





Industrial companies have undergone significant transformation, as digital technologies have led to new customer experiences, as well as new sales and marketing services, and the development of ecommerce. In the back office, a more agile digital core means greater automation of processes that support corporate functions.

These companies are focusing on digitizing the key industrial parts of their businesses, using more embedded software, data, artificial intelligence (AI), new generation wireless connectivity and other digital technologies to: rethink the products and processes they offer to their clients, rethink their own operations, and invent new services and business models.

At Capgemini we are pioneering Intelligent Industry, powered by data. This goes beyond what we currently know as 'Industry 4.0' – we are driving its extension and evolution, across all sectors of the economy. We are the only global provider that has both the sufficient depth of product engineering knowledge and breadth of ability to master data (and the volumes of it) and deploy technology at scale. In turn we help clients innovate and differentiate in this dynamic space.

Intelligent Industry comprises three things in particular:



**Intelligent products and processes:** smart and connected, so they can be continuously improved thanks to real-time feedback



**Intelligent operations:** enabling supply chains, factories, plants and networks to become more efficient and cheaper to run.



**Intelligent support & services:** where products become the centre of ecosystems, leading to new business and revenue models.

Businesses taking an Intelligent Industry approach will see a wide range of benefits, such as new and differentiated products, reduced costs, increased efficiency of production, new as-a-service business models, and faster times to market.



Intelligent Industry involves harnessing the power of data to foster innovation, make new and differentiated 'smart' products, improve supply chains, create new customer experiences and deliver new sources of value. Companies will see benefits from new and pervasive connectivity, with opportunities to become more efficient and agile, while creating new value-added services, beyond the products they make.

While the way products might look has not changed much, what is going on inside them has significantly – they now have more digital technology internally than ever before. And this in turn creates almost unimaginable amounts of data which then means companies can now find insights to improve operational performance, reliability and autonomy, bring innovations to market faster, and deliver intelligent products and associated new services, and customer experiences.

Across sectors including automotive, telecommunications, life sciences and consumer products, we help our clients anticipate, transform and react to these developments, so they keep their competitive edge, and take advantage of what is possible when everything is intelligent, and powered by data.

Intelligent Industry is accelerating now thanks to a combination of three factors:



#### **New technologies:**

Convergence of technologies like AI and ML; 5G; Cloud and Edge computing; data analytics and engineering; data security; blockchain; and IoT etc. has led to rewriting the rules of how physical and virtual products are manufactured – and what can be done once they are made.



#### **New customer expectations:**

Customer expectations of hyper-personalization, ease of use of processes, more value-added services and access to broader ecosystem of services will create new human experiences for customers to enjoy that are greener and more sustainable, delivered by companies and brands that can be more trusted thanks to more transparency in how they operate.



#### **Greater competition:**

New technologies and new customer expectations mean that industrial companies are facing greater competitive pressures than ever before, knowing that rivals can emerge from both within their sectors – and well outside them too.



## Why us?

Capgemini is the world leader in pioneering Intelligent Industry, delivering digital transformation for the largest industrial and technology players. With the integration of Altran, the world leader in engineering and R&D services, we now have full capabilities in both industrial and digital technologies – to design, develop and deliver tomorrow's products and services.

What sets us apart is the combination of technology implementation at global scale, deep product engineering abilities, and extensive domain and industry knowledge – knowing the specifics of our clients' business, activities and processes. For instance, we master how a car, a train, a plane is built, and then envision what is possible once data and the correct infrastructure are implemented.

It is by bringing these aspects of knowledge and global expertise together that we will accelerate the three big changes – digital inside, digital continuity, and digital convergence – which will drive this intelligent industrial revolution.

## Capgemini's offerings in Intelligent Industry

Intelligent Industry is accelerating now thanks to a combination of three factors:



**5G and Edge:** Under this we will enable Communications Service Providers, Network Equipment Providers and Enterprises across industries to implement 5G and Edge technologies at scale, so that companies' products, assets and processes can unlock innovation and efficiencies within their business. This offering reflects our expanded ability to design, develop and deliver tomorrow's products and services.

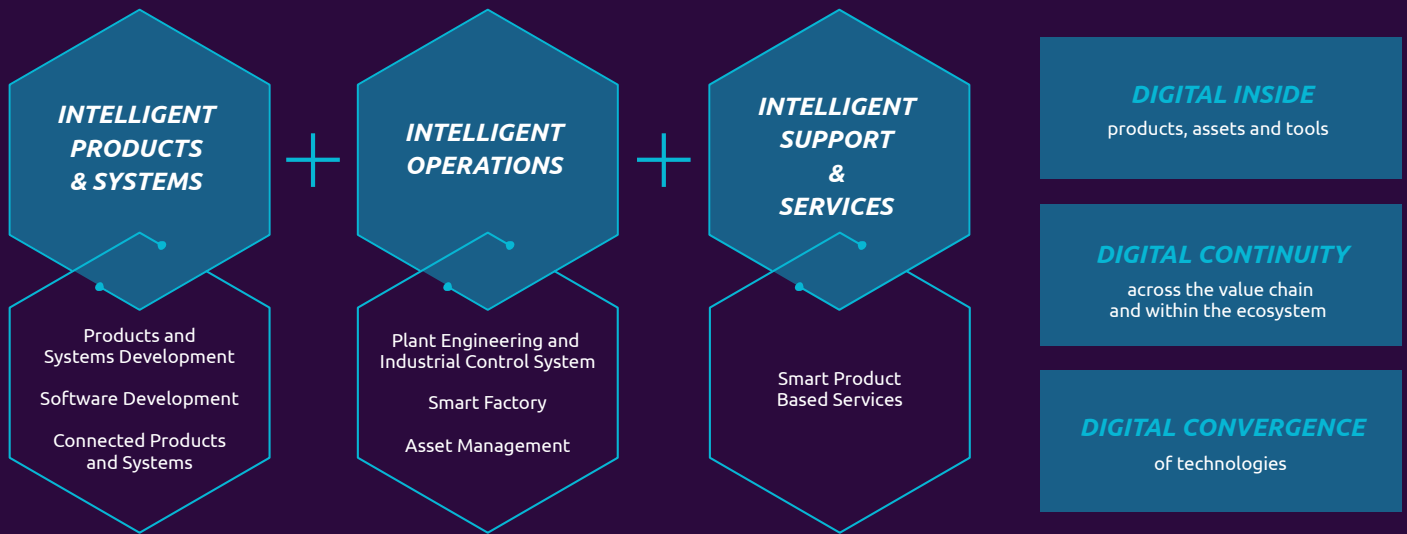


**Advanced driving automation systems:** Through our deep engineering and IT expertise and assets, Capgemini's Driving Automation Systems validation offer will enable Original Equipment Manufacturers (OEMs), suppliers and the wider industry, to put in place the architecture and technology required for confidence, safety and trust in the driverless system.



**Life Sciences:** This offering brings the power of Data and Artificial Intelligence (AI) at scale to the research and development (R&D) function thereby helping bio pharma companies to improve drug discovery and clinical trials. R&D teams can leverage a broader body of clinical data and literature about drugs and conditions and incorporate it into their processes in real-time along with 'real world' data such as medical data, insurance data, even social media for valuable insights into patient needs, treatment adherence and outcomes.

## What is now possible?



### Intelligent Products and Systems

Capgemini worked with a major European rail company to both physically design rolling stock components, and integrate smart systems at the same time, which has enabled the development of a new generation of high-speed trains, for better safety and reliability.



### Intelligent Operations

With a technique called 'flow simulation' Capgemini redesigned the industrial and logistics processes for a leading aircraft manufacturer's factory, improving the production rate by 25%.



### Intelligent support and services

Capgemini's Virtual Train solution uses a combination of AR, VR and mixed reality technology to provide ongoing data and support for train systems.



### What's next?

Becoming Intelligent Industry businesses will be a complex journey for our clients – a real change from one way of thinking to another. So our role is to provide them with a roadmap, and be at their side for every step, so they don't get lost while enabling innovation, differentiated products, greater efficiencies, greener energy consumption, and increased customer satisfaction – all powered by data.

That's the future of industry. And it's ready, now

