

Case series: Industrial IoT in action

Applied insights from 5 industrial companies' data- and analytics-driven business plays







In the 2020 article 'The winning card in industrial digitalization' we analyzed market trends for how companies approached digital business plays. While many of the insights and patterns outlined remain relevant, some predictions have not materialized. For example, we don't see many large digital ecosystems with winners-take-all dynamics. Instead, in most industrial sectors we see players with different roles in the value chain competing for the same data-based and service-oriented value pools, which creates a lot of friction.

In this article series, we present five case studies of how companies with different roles in their industries managed such frictions in their digital business plays. The cases illustrate different viewpoints on the challenges in claiming a fair share of value pools enabled by the internet of things (IoT). These value pools are often focused on data-driven optimization and maintenance of industrial equipment. Some companies call it digital or connected solutions, some data-driven business, others servitization or X-as-a-Service.

What unites these case studies is the systematic approach the companies have taken towards targeting customer value, positioning to ensure "right-to-win", and proactively working to capture and control the created value to strengthen competitiveness and profitability using intellectual property.

To protect the privacy of the companies, some of which are still developing their digital business models, the case studies have been anonymized.

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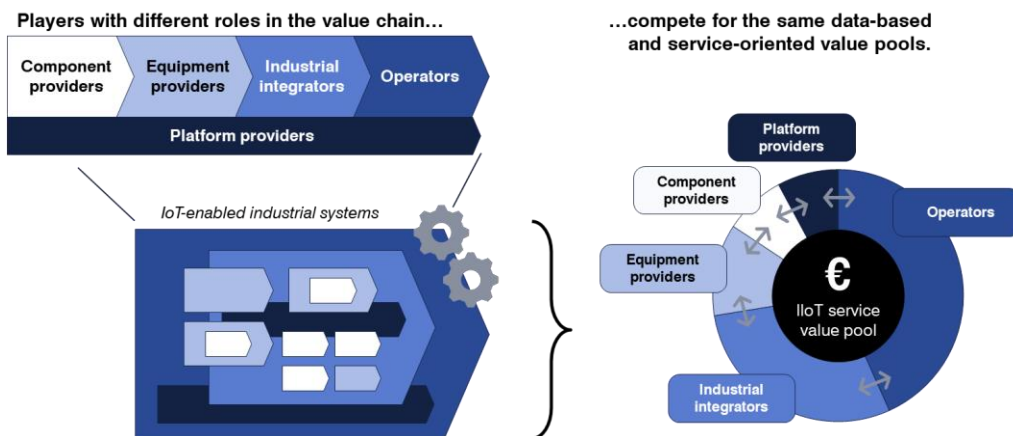


Figure 1: Players with different industry roles compete for value enabled by the internet of things

Case	IIoT play	IIoT competitiveness aspects
Nebula Industrial integrator Heavy Vehicles industry	Data-driven services <i>Approach:</i> Target-Position-Capture value	<ul style="list-style-type: none"> • Right to play with proprietary analytics; access to Customer data • Hinder disintermediation by Platform providers • Neutralize Equipment and Component providers' product expertise advantage
Eclipse Equipment provider Food & Beverage industry	Outcomes-as-a-Service <i>Approach:</i> New business unit with IP StratOps	<ul style="list-style-type: none"> • Prove 'As-a-Service' value to customers – right to play inside Operator's operations • Dual relationship with Integrators: plug-and-play interoperability v. disintermediation • Hinder commoditization of codified domain knowledge
Orion Operator Process industry	Data-driven operations <i>Approach:</i> Fit-for-digital IP strategy with IP StratOps	<ul style="list-style-type: none"> • Data ownership and profits from derived insights • Risk of vendor dependency, shift in power balance and redistribution of profits • Risk of platform lock-in and reduced share of value pool
Comet Component provider Resources & Materials	Data analytics services <i>Approach:</i> Target-Position-Capture value	<ul style="list-style-type: none"> • Right to play in analytics – not only generate but make use of data • Disintermediating Equipment providers and Integrators (risk of counter-reactions) • Compete on system-level against large digital players and hyperscalers
Pulsar Platform provider Manufacturing industries	AI analytics platform <i>Approach:</i> New business discovery & development	<ul style="list-style-type: none"> • Generalist platform pitfall – industry-specific without over-customizing • Customer fears of platform dependency and margin erosion • Platform contributor concerns of commonization and disintermediation

Figure 2: Overview of cases in article series



Summary of Case 1: Nebula – Industrial integrator role; Heavy vehicles industry

Nebula, an OEM integrator for heavy vehicles, early identified data as a key to unlocking significant cost savings and improving vehicle uptime for its customers. With customers demanding increased data openness to invite more competition and lower maintenance costs, Nebula faced the challenge of adapting to a more open data environment.

Nebula was invited to collaborate on a joint platform for data and analytics orchestrated by a large customer with substantial buyer leverage, which would likely diminish Nebula's competitive advantage and their value share. In response, Nebula partnered with Konsert to devise a strategy to maintain competitiveness by leveraging unique system integration skills of critical importance. They rapidly identified the Customer's greatest needs and Nebula's strongest "right to win" in the value chain, and built an MVP service as proof of value, to build critical customer trust and to gain first-mover advantage.

Nebula planned to address threats of disintermediation and competition with an end-to-end approach from the customer needs and where to play in the value chain, to the key technologies and data sets of disproportional importance to outperform, including securing data access rights, intellectual property, and strategic partnerships.



Summary of Case 2: Eclipse – Equipment provider role; Food & Beverage industry

Eclipse, an equipment provider in the Food & Beverage industry, wanted to avoid being reduced to a "steel bender" as the industry was increasingly digitalized. Eclipse aimed to pivot from a traditional capital expenditure (capex) model to an Outcomes-as-a-Service (OaaS) model, fueled by the potential of their born-digital machines. This shift would offer recurring revenue and deepen customer relationships.

Eclipse's new solution leveraged smart edge devices and a backend platform to deliver services that increased customers' operational efficiency, generated significant energy savings, and helped customers' reach their sustainability targets. Despite the benefits, scaling the OaaS solution would disrupt industry dynamics and relationships. The venture required addressing industry frictions like proving the value of OaaS over traditional models to Operators, ensuring interoperability with System Integrators while potentially disintermediating their revenue, and protecting codified domain knowledge from being replicated and commoditized by players with large digital and AI muscles.

Partnering with Konsert to access IP StratOps capabilities, Eclipse geared up to tackle these challenges. The IP-backed initiative aimed to prevent commoditization and secure Eclipse's market share and profitability in the evolving service-oriented landscape. Eclipse's IP StratOps team quickly built a robust and fit-for-purpose patent portfolio. At launch of the new OaaS business, Eclipse was strategically positioned to claim a substantial share of the industry's service value pool.



Summary of Case 3: Orion – Operator role; Process industry

Orion, a leading European process industry operator, reevaluated its digital strategy and redirected its focus to "data-driven solutions that supports the core business", as one executive put it. Orion was aware of the largely untapped wealth of data from their production sites. Leveraging data-driven insights had the potential to significantly increase productivity, improve operational efficiency, improve sustainability, and create cost savings.

However, Orion perceived themselves as a digital laggard and acknowledged their dependence on process industry-focused equipment providers and system integrators. This left Orion's leadership with one big question: if we become data-driven and optimize operations and maintenance, how do we keep the value created and not just give away the profits to other players in the value chain?

Orion realized that intellectual property would be key to maintaining control over the value created from data-driven operational optimization and maintenance as well as from opportunities in decarbonization, electrification and circular solutions. Orion anticipated a number of key industry challenges that had to be managed for the data-driven reboot to be successful: retaining ownership over operational data from production sites and valuable data insights and managing dependency on vendors that might position themselves as the primary creators of value leading to a redistribution of the profits away from Orion.

Together with Konsert, Orion adopted an "IP Jobs-to-be-Done" approach, translating business needs into targeted IP value mission that could be pursued and measured over time, shifting from passive defense to strategic enablement of business goals. This ensured that IP became a key component in securing profit from Orion's data-driven improvements, reinforcing its role as an innovative leader in the process industry.



Summary of Case 4: Comet – Component provider role; Resources & Materials

Facing commoditization and shrinking profit margins, connector provider Comet launched its Data Analytics Initiative to tap into new revenue streams. The ambitious project sought to transform standard connectors into intelligent nodes capable of unlocking actionable data insights from industrial systems. Leveraging this data, Comet aimed to provide value-added services focused on system optimization and predictive maintenance.

Comet's journey entailed overcoming industry frictions such as the right to access and utilize sensitive customer data, handling resistance from incumbent analytics players whose revenue streams Comet would disrupt, and matching the digital prowess of leading platform providers.

A 'target value' analysis pinpointed customer needs and informed the decision to focus on the Resources & Materials sector, where Comet's envisioned digital services best matched customer needs, creating the most attractive value pool. The following 'position for value' analysis defined Comet's strategic direction in terms of 'where-to-play' and 'how-to-win', by determining where Comet could best leverage its strengths and how to handle potential industry frictions. The company adopted a dual-path strategy to create and capture value, starting with a customer-tested prototype MVP, progressively scaling towards comprehensive services.



Summary of Case 5: Pulsar – Platform provider role, cross manufacturing industries

Pulsar, a digital native in the industrial software sphere, had grown rapidly by providing a data platform specializing in data operations and integration for manufacturing industries. Recognizing the potential for further growth, Pulsar expanded their product portfolio towards offering AI-enabled analytics services. The aim was to provide an AI analytics platform capable of delivering data-driven insights to a range of manufacturing companies for process optimization and predictive maintenance.

Pulsar faced several industry frictions: providing sufficient customization for different manufacturing industries while remaining agnostic and scalable, handling customer concerns about over-reliance on a single platform that could erode their margins, and allaying fears from platform contributors about commoditizing their domain knowledge or risking disintermediation.

Note: While Konsert has established relationships with both Comet and Pulsar, we did not directly engage in a consulting capacity for the specific Data Analytics and AI-enabled Analytics initiatives.



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