



Digital transformation in industrials – defining the opportunity

Plural expertise

August 2020

Agenda

Digital transformation in industrials

- **Summary**

- Drivers

- Opportunities for industrial tech corporations


About Plural




Industrial technology corporations can increasingly capture value through digitally-enabled solutions

Introduction to digital transformation in industrials


Operators are investing in digital capabilities to better serve increasingly complex customer needs, address evolving regulatory landscapes, optimize processes and make smarter decisions



This evolving landscape creates opportunities for disruption across industrial markets through new digitally-enabled solutions and business models



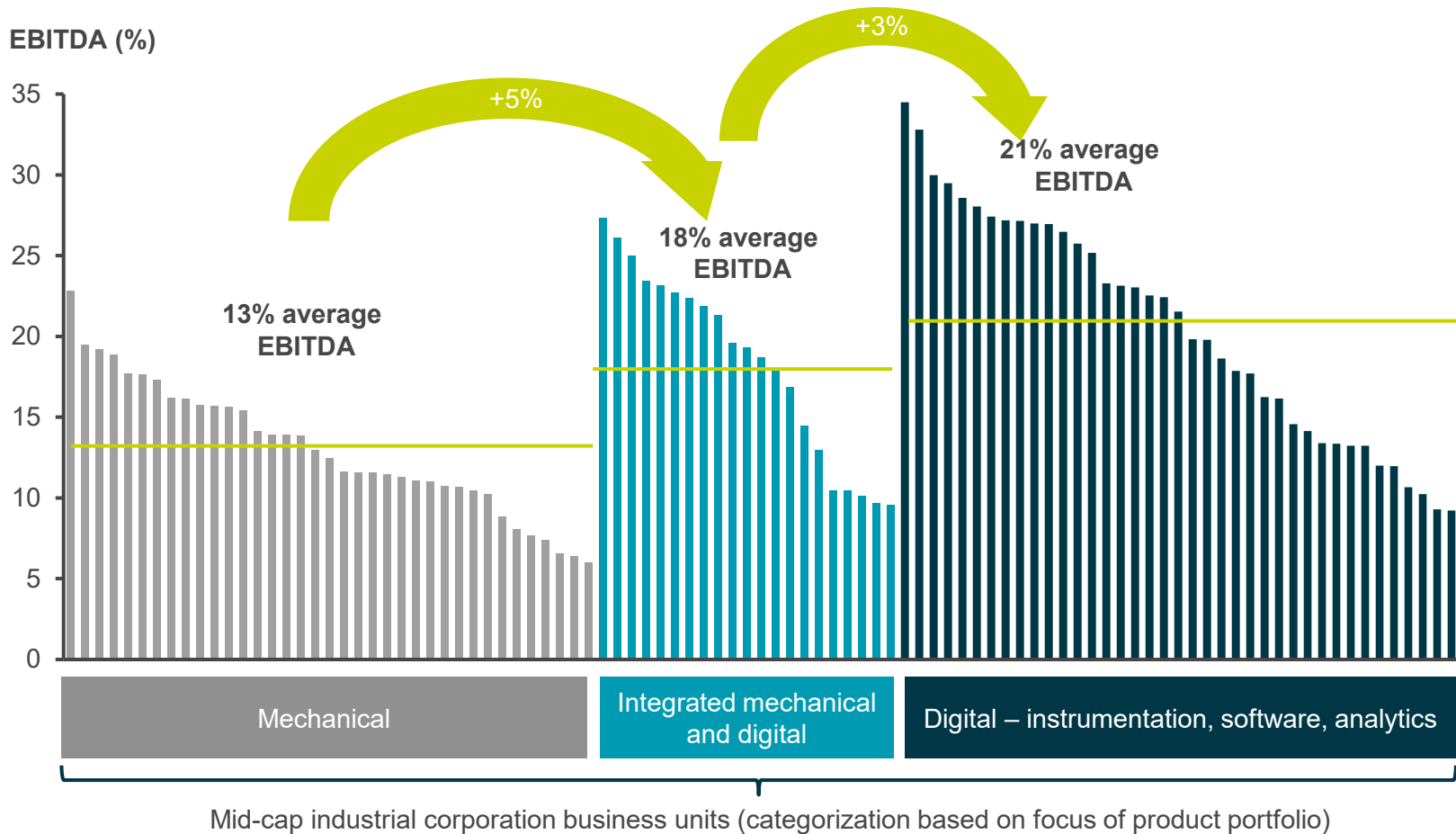
Diversified industrial technology corporations are increasingly transitioning to digi-mechanical portfolios to create more compelling, differentiated, end-to-end value propositions



Plural works with leading diversified industrial technology corporations and investors to build attractive digital and digi-mechanical platforms organically and through acquisition

Digi-mechanical or digitized product portfolios tend to translate to stronger financial performance

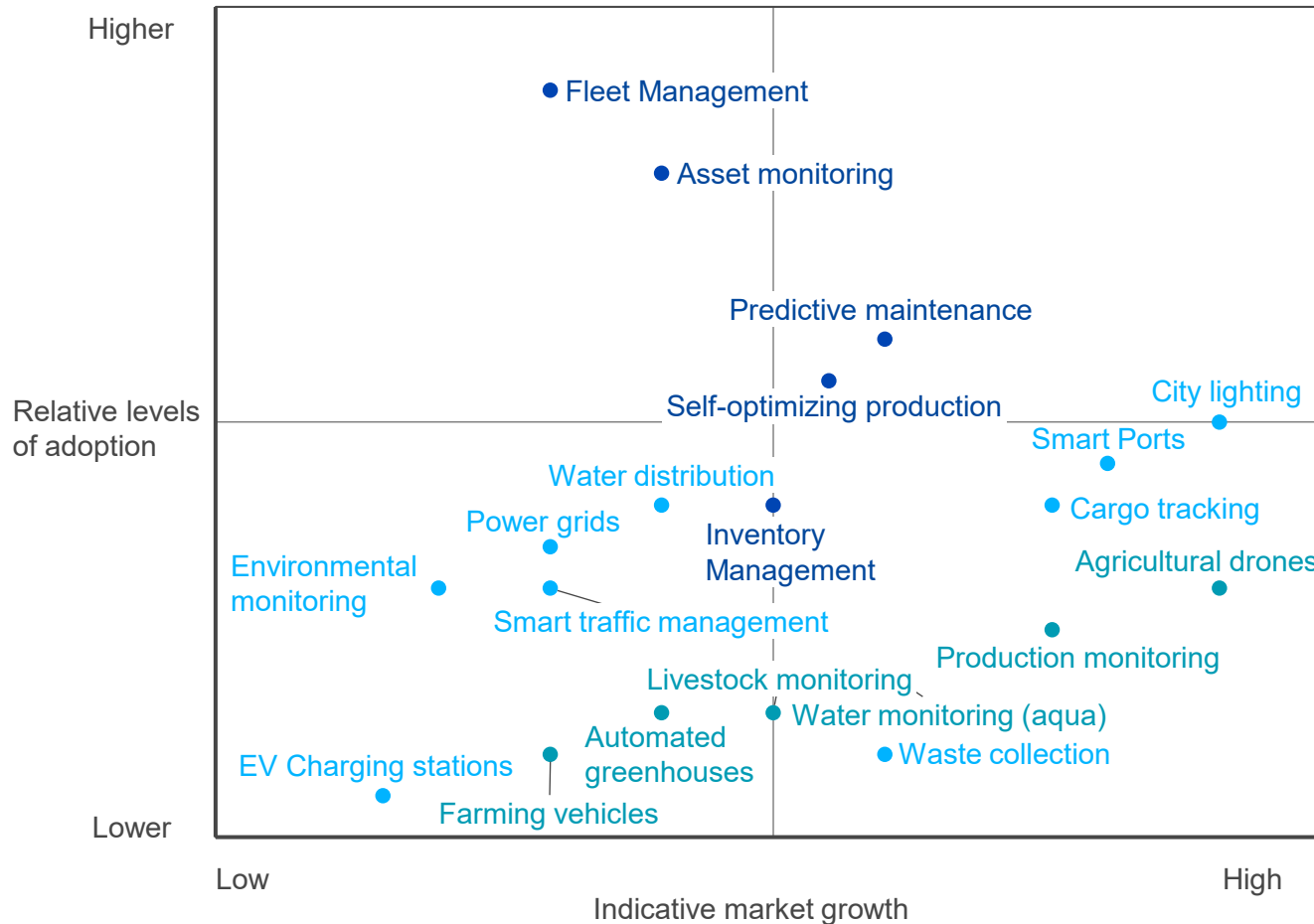
Selected EBITDA margins of mid-cap (\$1bn-\$4bn revenue) diversified industrial technology corporation business segments



Note: Outliers excluded
Source: Company annual reports, Plural

Growth and adoption of digital technologies varies across applications – fleet management and asset monitoring are the most prevalent

Examples of IoT (Internet of Things) markets and applications



Select Plural end market expertise

- Process industries
- Agriculture / Aquaculture
- Energy and infrastructure

Covid-19 will further drive digital investment in the short term and will have lasting longer term implications

Impact of Covid-19 on digitization end user investment

Key corporate objectives	Examples of digital solutions	
Increasing employee safety and security	<ul style="list-style-type: none"> • Remote employee collaboration • Workforce tracking • Vision based control systems • Remote asset control 	Securing short-mid term continuity
Improving liquidity	<ul style="list-style-type: none"> • IoT enabled inventory management • Waste reduction • Longer maintenance cycles 	
Delivering short term cost reduction	<ul style="list-style-type: none"> • Performance management and real-time KPI tracking • Remote assistance and maintenance tools 	
Delivering medium-term cost improvement	<ul style="list-style-type: none"> • IoT-enabled asset optimization • Real-time procurement process and transparency 	Improving mid-long term operating performance amidst future uncertainty
Improving revenue stability	<ul style="list-style-type: none"> • Real-time and dynamic price optimization 	

Industrial technology corporations must establish the appropriate customer-led digital strategy

Digital strategy considerations

Customer needs and demand dynamics - considerations

- Is the strategy aligned with end-to-end customer needs and behavior?
- What is the size of the opportunity, market penetration, rate of adoption and external and internal barriers to adoption?
- How defensible is the technology? Can it be replicated? Will it just be disrupted by something else?

Go-to-market - considerations

- Should the strategy be built as complementary to the existing product portfolio or is it a stand-alone model and revenue stream?
- Do we have the right-to-play and therefore can the opportunity can be accessed organically?
- Are there decision making and channel synergies with existing products?
- What core competences and capabilities are required?

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Industrial operators are implementing digital solutions to address changing consumer needs and market landscapes, and improve operating processes

Objectives of industrial digitization

Serve increasingly complex consumer needs

- Meet changing consumer quality and environmental expectations through automation, quality control etc.
- Provide a more responsive service e.g. on demand or customized production through increased automation

Address increasingly complex market landscapes

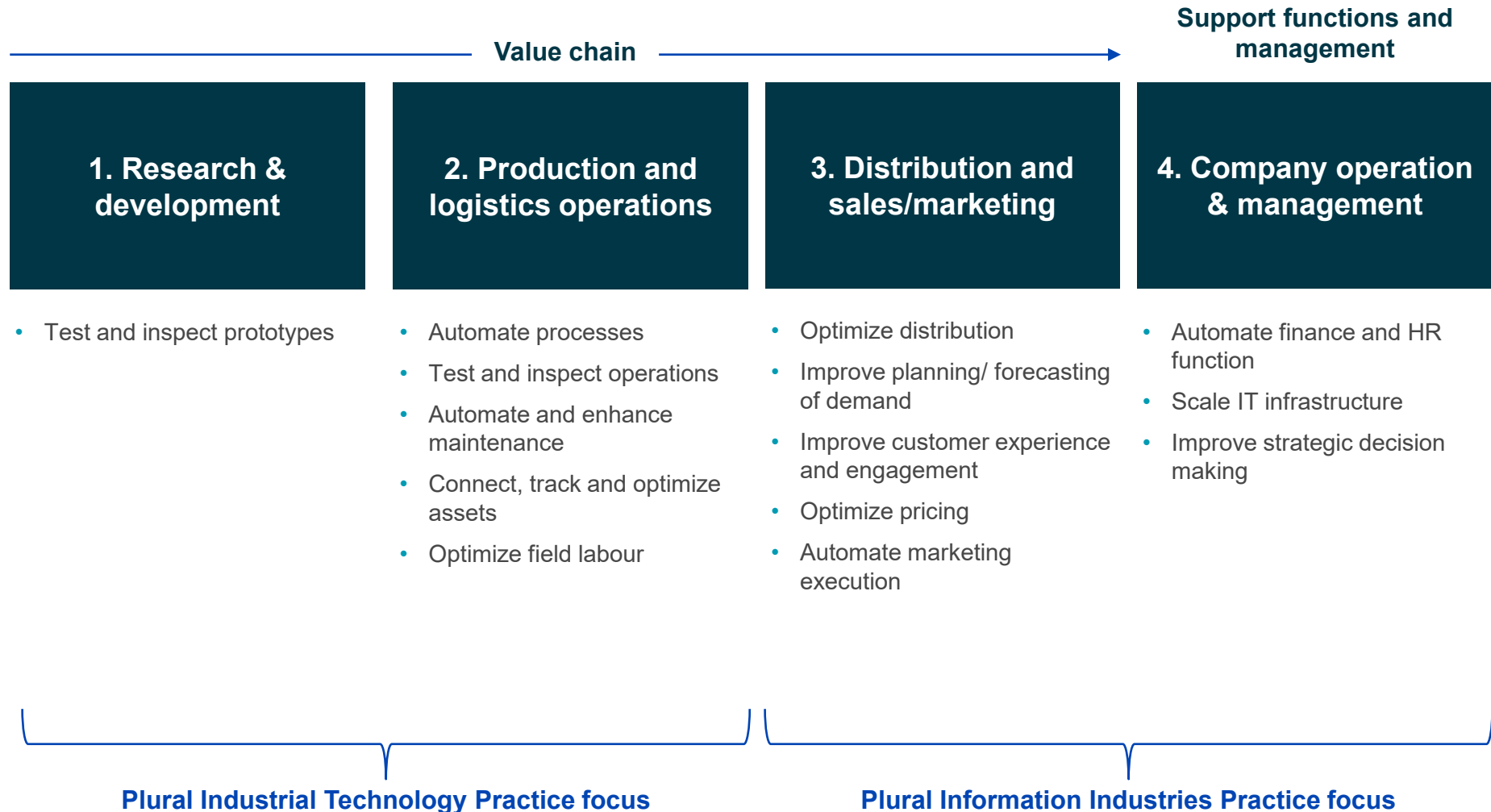
- Address technology-led market changes
- Deliver in-line with safety and environmental regulations

Improve operating performance

- Reduce asset risk
- Deliver strategic cost advantages through operational efficiencies
- Deal with the increasing labor costs

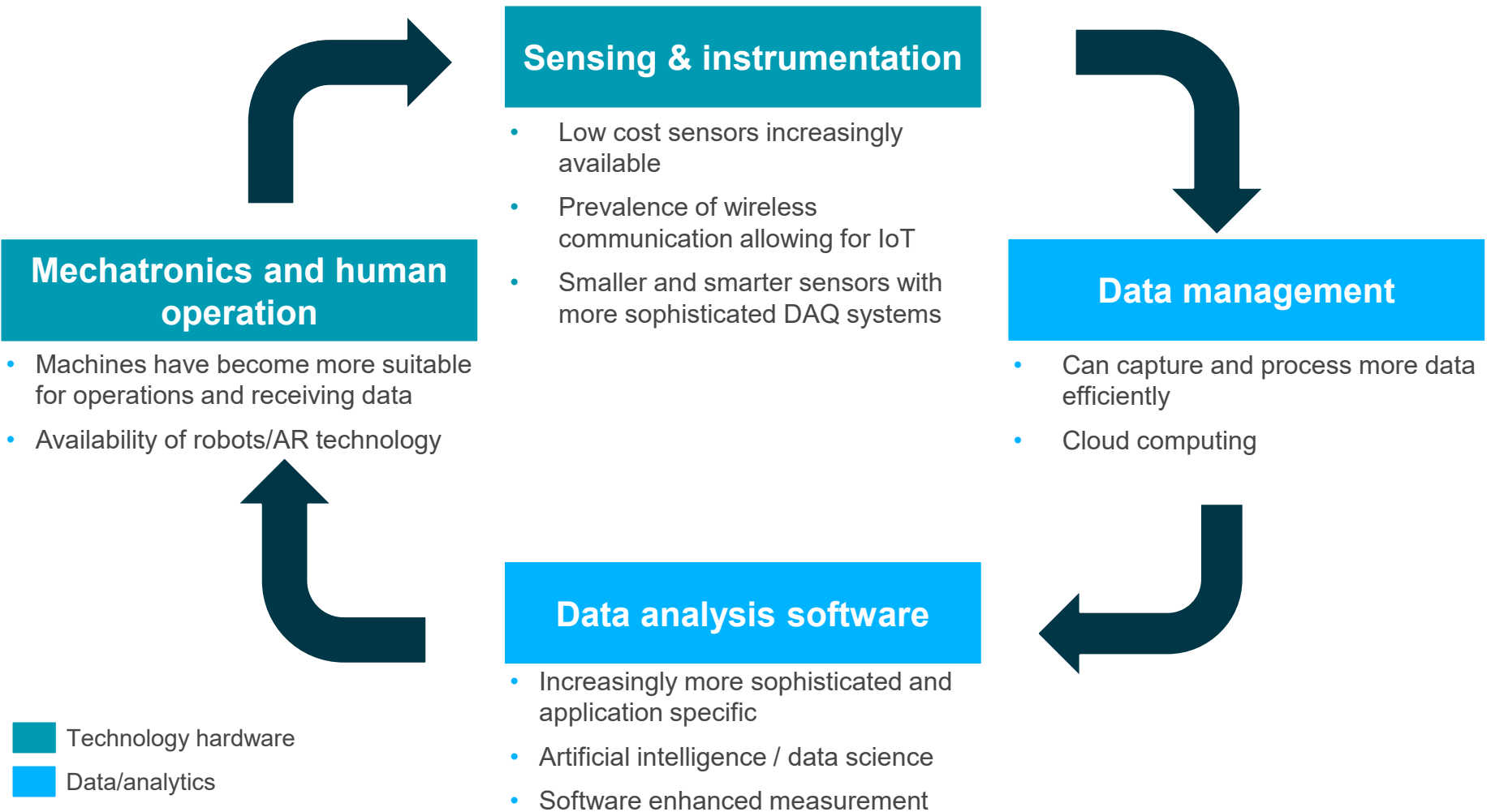
Digitization is taking place across the value chain for industrial operators

Digitization of the industrial value chain – example applications



The digitization of industrial processes and operations creates a proliferation of data which in turn drives process sophistication

Digitization value drivers



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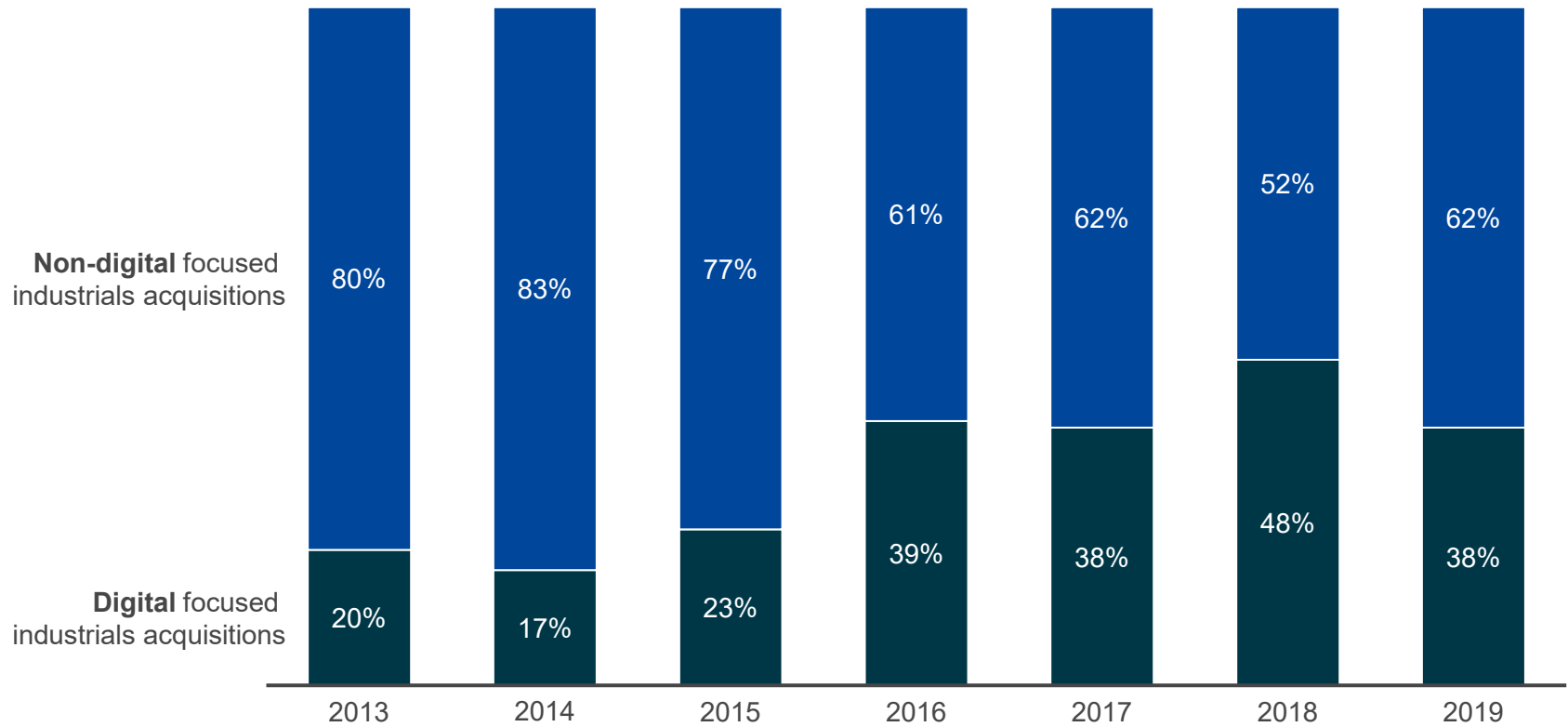
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Diversified industrial technology corporations are increasingly broadening their product portfolios to incorporate digital capabilities

M&A activity by 20 mid-cap diversified industrials, # of acquisitions



Note: Deep dive into 20 companies of revenues between \$1-\$10bn
Source: Pitchbook, Plural analysis

For diversified industrial technology corporations, developing a digital portfolio creates a more compelling customer offering and create value

Benefits of portfolio digitization for industrial technology corporations

Benefiting from positive market trends

- Change the growth trajectory of the overall business by adding fast-growth digital platforms

Future-proofing from substitution

- Adopt digital solutions to avoid being replaced by competitors that are further along the adoption curve

Improving the value proposition

- Redefine the company's value generation by adding recurring services to their products
- Enable better relationships with customers and end users, creating an end-to-end experience
- Improve the overall component or system solution by making it smarter

Owning the data and becoming a partner in production

- Facilitates an ongoing relationship between the company and customer to continue past the point of purchase
- Establishes a greater presence for the industrial corporation across a customer's plant

There are several ways diversified industrial corporations have evolved their business models to be more digital

Observations on business models and strategy development

Example strategies

Digitize existing mechanical products

Add complementary digital products to a mainly mechanical portfolio through M&A

Create a complete digital solution organically and / or through M&A

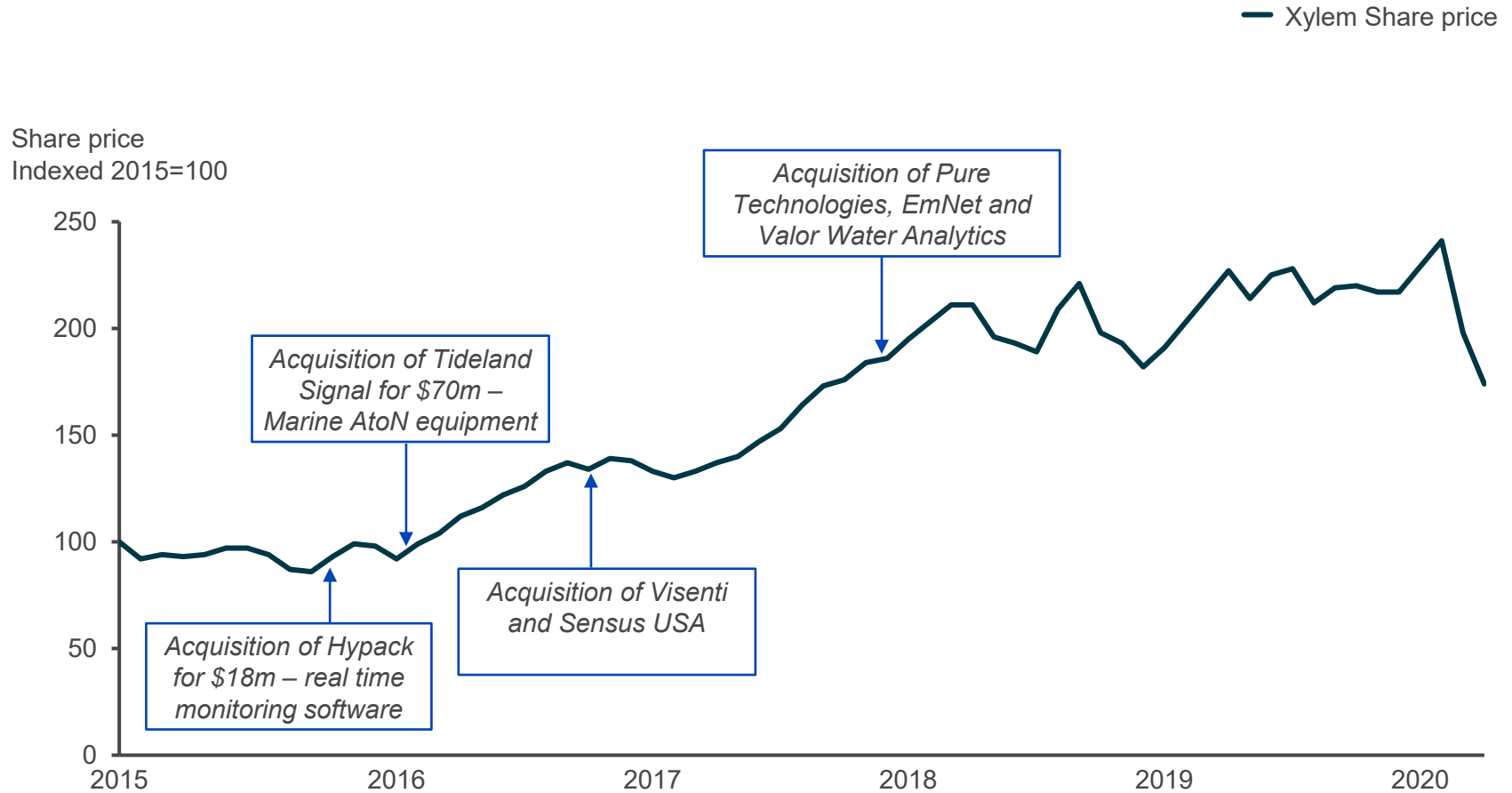
Example businesses

- **Kaeser Kompressoren** digitized their compressors allowing them to perform remote diagnostics and identify preventative maintenance measures; in turn transforming their business from selling compressors to providing compressed air as a service
- **Grundfos** has implemented connectivity and data management solutions to their products. This allows them to deliver more complete solutions that can control and measure properties of the water more easily
- **Xylem** acquired **Sensus** aiming to improve Xylem's overall product offering by expanding into metering to take advantage of the rise digital solutions in the water management industry
- **Kion Group**, which was primarily a manufacturer of forklift trucks and warehouse technology acquired **Dematic**, a warehouse automation and software solutions provider to maintain market position as the industry shifts towards digital warehouse solutions
- **AMETEK** acquired **Spectro Scientific**, integrating the instrumentation data of Spectro Scientific and AMETEK's cloud-based software and analytics
- **Dover** acquired **Soft-Pak**, a route management software for fleet management, to enhance Dover's focus on connected refuse vehicles and productivity enhancing solutions
- **Malvern Panalytix (a Spectris business)** is using its expertise and tools in AI and data analytics to serve new niches such as confectionary products in food manufacturing

Source: Grundfos, Xylem, Kion, AMETEK, Kaeser Kompressoren, Colfax, Dover, Plural analysis

Example business case: Xylem has made several acquisitions since 2015 within the digital space, growing shareholder value

Case study: Digitization impact on shareholder value

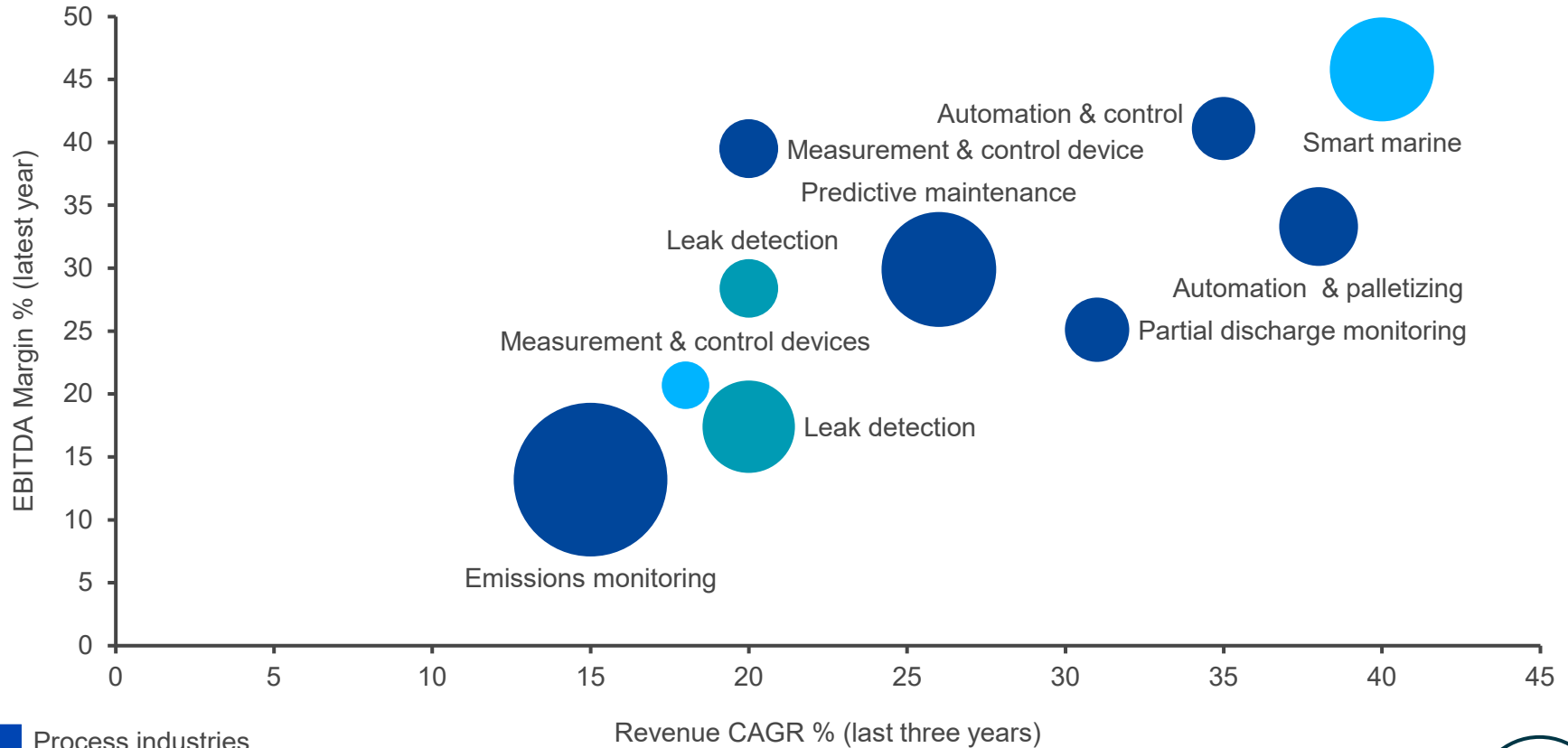


Source: Pitchbook, Company Annual Reports, Plural analysis

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Example investment opportunities: M&A is a viable route to growth with a number of attractive digi-industrial businesses – select examples

Revenue growth and EBITDA % for select emerging digital technology businesses



- Process industries
- Water management
- Energy and infrastructure

Bubble size reflects revenue size \$10-100m

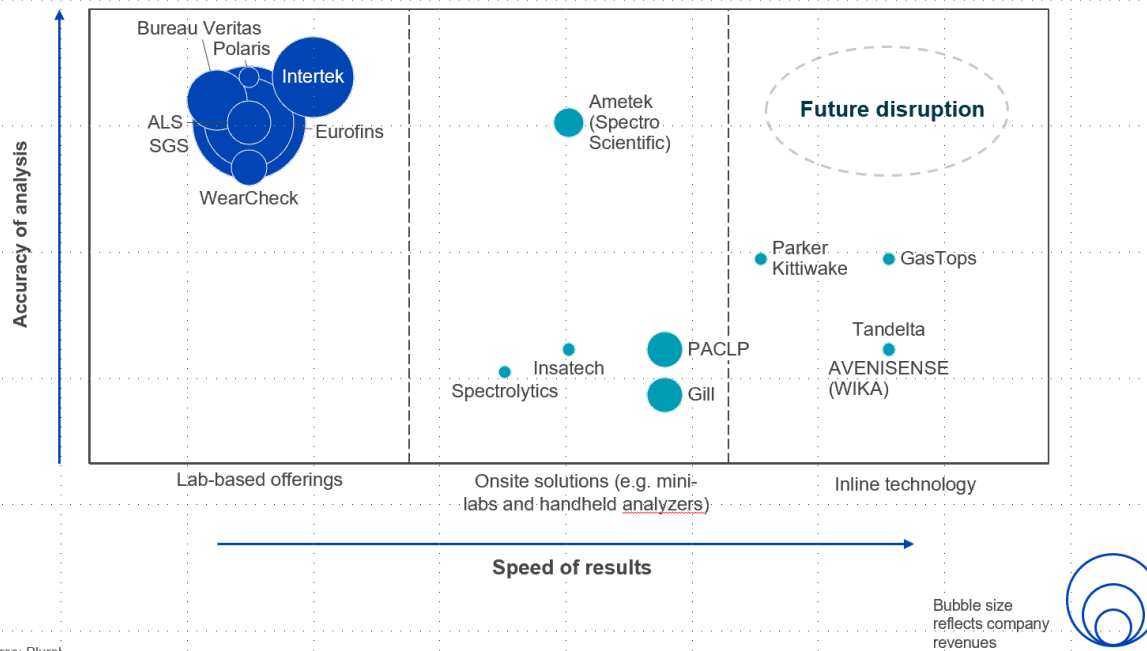


Source: Capital IQ, Plural analysis

Spectro Scientific case study: Spectro bridged the gap between data accuracy and speed of results in the absence of accurate real time sensor technology

Plural case study: Test and inspection - oil condition monitoring

Test and inspection oil condition monitoring competitive landscape



Source: Plural

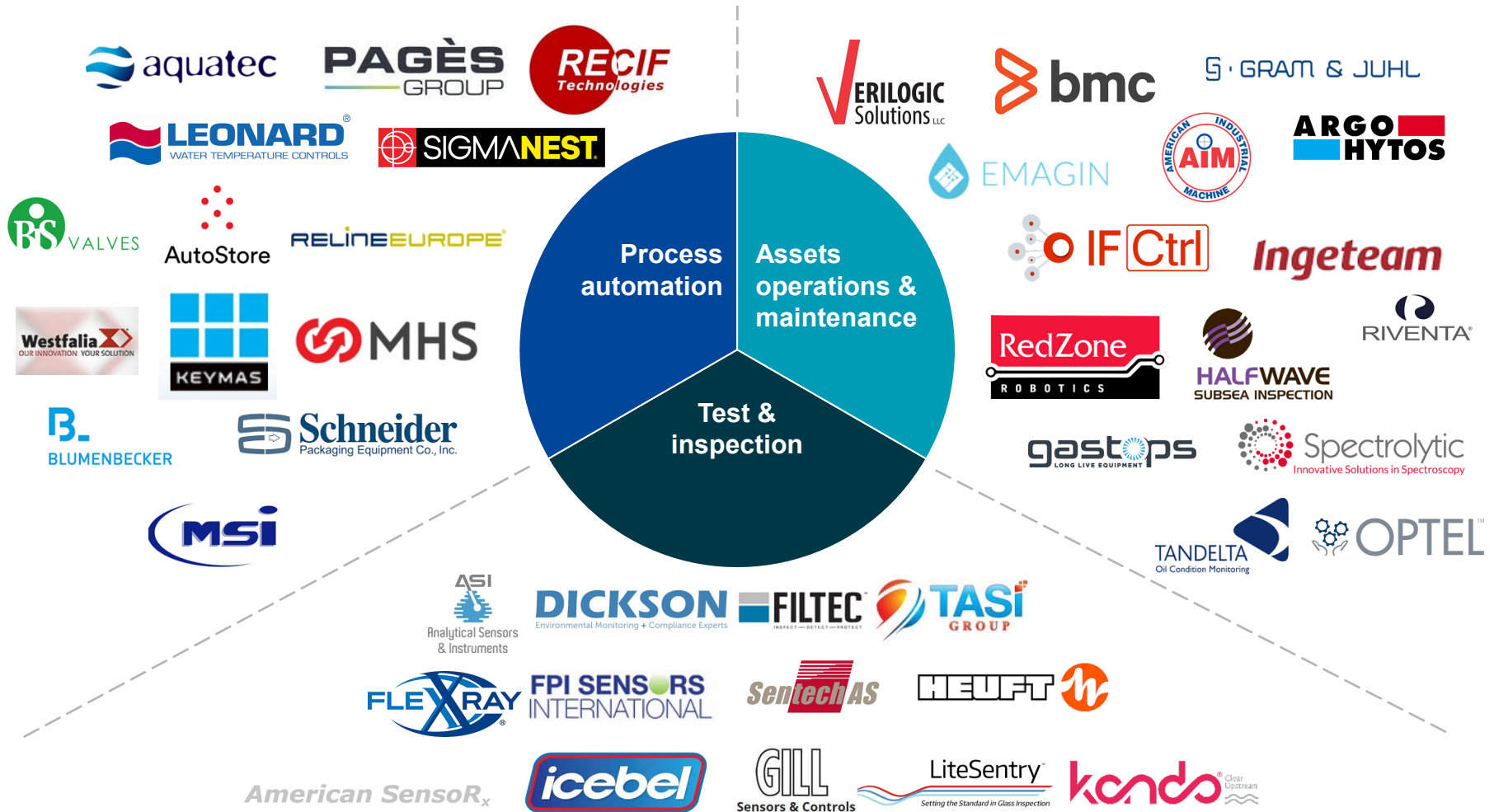
- Spectro Scientific is a provider of handheld oil condition monitoring (OCM) analyzers and predictive analytics
- OCM is typically lab-based with 48 hours to seven-day turnaround. In-line technology which can produce real-time data and analysis lacks accuracy
- Spectro Scientific's onsite analyzers were the leading solution to produce accurate analysis, fast and onsite



- Plural conducted strategic due diligence on Spectro Scientific including:
 - A survey with end-users to assess market penetration and speed of uptake
 - Assessment of management forecasts and business plan
 - Assessment of the sustainability of Spectro's value proposition based on evolving end user needs and emerging technology

PE investment is active across digi-industrial segments; there are also a number of emerging independent companies

PE backed and independent digi-industrial focused companies – select examples



Source: Pitchbook, Plural Analysis

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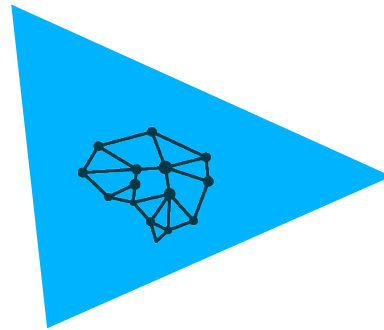
About Plural

Plural has built a high quality consulting practice and deep expertise focused on disruptive technologies in specific end markets



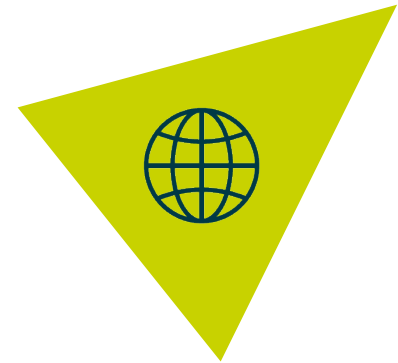
FOCUSED SECTOR EXPERTISE

- Expertise built across specific market platforms
- Work on a regular basis with the leading industry players and private equity investors
- Deep understanding of the technologies employed and emerging disruptive opportunities



STRATEGIC AND COLLABORATIVE APPROACH

- Long standing partnerships with diversified industrial corporations and investors
- Deliver deep customer + market insight in complex niches
- Develop clear narratives addressing key strategic issues



GLOBAL TEAM

- Global team of commercial thinkers and engineers
- Support strategic initiatives across Americas, Europe and Asia

Our expertise is built across three fast-evolving platforms

Our focus:

Best-in-class and digitally-enabled technologies, and value-added services

Process technology



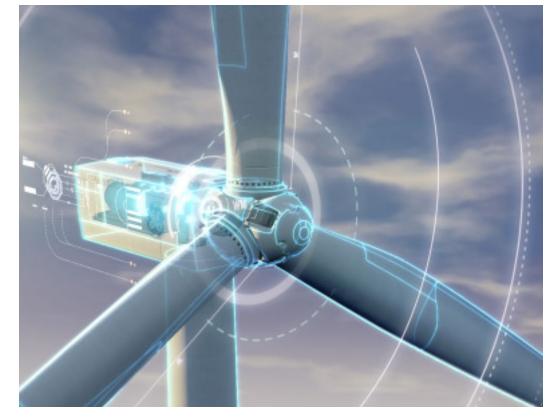
- Food, beverage and pharma
- Intralogistics
- Energy

Water management



- Municipal, residential, commercial
- Industrial processes
- Agri / Aquaculture

Digital



- Test and inspection
- Measurement and monitoring
- IOT

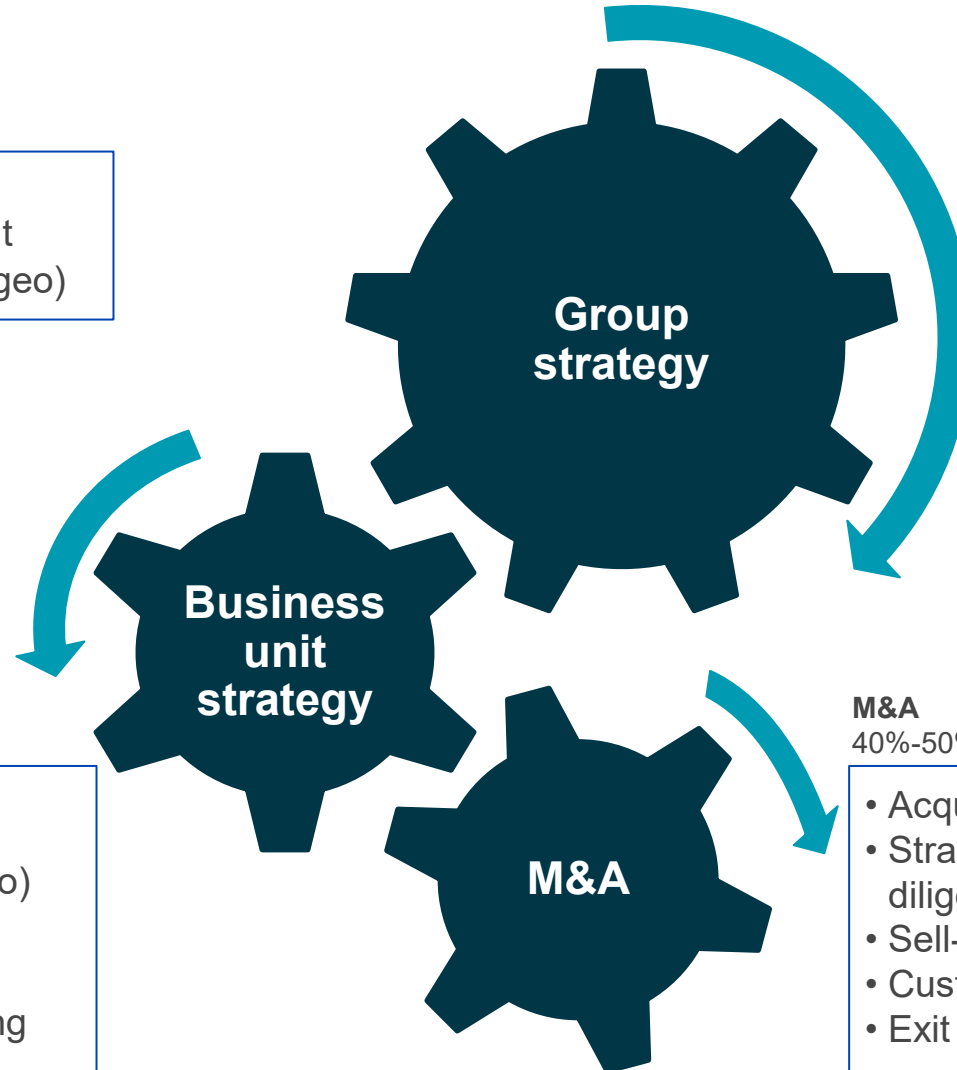
We offer a range of market and customer focused services relevant to our platforms, spanning group strategy, business unit strategy and M&A

Our services:

Group strategy

10%-20% of engagements

- Overall platform strategy
- New platform development (Technology, end market, geo)



Business unit / platform strategy

30%-40% of engagements

- Market growth strategy (Technology, portfolio digitization, end market, geo)
- Market entry strategy
- Go-to-market strategy
- Channel strategy and pricing
- Voice of customer










M&A

40%-50% of engagements

- Acquisition strategy
- Strategic commercial due diligence
- Sell-side due diligence
- Customer referencing
- Exit strategy

Plural has extensive expertise in the mechanical and digital technology used across process industries and water management

Select assignments:

Served sectors	Description	Type
 Water management	Assessment of investment opportunities in the European commercial plumbing market	Market opportunity assessment / pre due diligence
 Water management	VCDD on valve manufacturer serving utility / municipal water and hydropower markets, globally	Vendor commercial due diligence
 Water management	Due diligence on a leading water piping and drainage manufacturer	Commercial due diligence
 Water management	CDD on a leading manufacturer of valves for the North American municipal and industrial markets	Commercial due diligence
 Water management	CDD on a specialist provider of commercial and institutional bathroom technology	Commercial due diligence
 Water management	Growth strategy mapping product expansion opportunities in core and adjacent markets	Growth strategy
 Multiple / machine condition monitoring	Due diligence on Spectro Scientific – a manufacturer of oil condition monitoring technology	Commercial due diligence
 Wind, marine, construction vehicles	Due diligence on Centa – a leading flexible couplings manufacturer for wind, marine and construction	Commercial due diligence
 Offshore wind	Assessment of the global offshore wind market	Market strategy / opportunity assessment

Plural has extensive expertise in the mechanical and digital technology used across process industries and water management

Select assignments:

Served sectors	Description	Type
 Intralogistics	Due diligence on Transnorm - a leading manufacturer of intralogistics automation technology	Commercial due diligence
 Food and beverage / test and inspection	Assessment of the test and inspection market related to food	Market strategy / opportunity assessment
 Food conveying technology strategy	Go-to-market strategy and voice of customer for a leading manufacturer of food conveying technology	Go-to-market strategy
 Paper and pulp	Market sizing and competitive positioning assessment for pumps manufacturer	Business unit strategy
 Food and beverage	CDD on Cambridge International – a leading manufacturer of metal conveyor belts	Commercial due diligence
 Energy	Growth strategy – mapping the changing technology landscape across energy	Growth strategy

Select M&A strategic due diligence advisory – industrials:



Valves – commercial and light industrial

Revenue: \$60m

Acquired by NIBCO, 2019



Machine condition monitoring – data analytics

Revenue: \$42m

Acquired by Ametek, 2018



Valves – water and wastewater

Revenue: \$210m

Sold by Rexnord, 2018



Seafood and meat pricing data

Revenue: \$100m

Acquired by Briefing Media, 2017



Power transmission: Marine, wind, construction machinery

Revenue: \$105m

Acquired by Rexnord, 2018



Motion control – printing

Revenue: \$230m

Acquired by Berwind PE, 2018



Face-to-face, digital and publications for energy

Revenue: \$34m

Acquired by LDC, 2018



Face-to-face, digital and publications for power gen

Revenue: \$200m

Acquired by Blackstone / Clarion, 2018



Motion control – intralogistics, airport

Revenue: \$120m

Acquired by Honeywell, 2018



Motion control – food and beverage

Revenue: \$200m

Acquired by Rexnord, 2016



Animal nutrition manufacturing

Revenue: \$100m

Acquired by HIG, 2016

Our senior team has supported a number of leading multi-platform industrials companies and private equity firms

Key industrial technology clients Plural's senior team has supported:

REXNORD

Cargill

CIRCOR

BAIRD

HILLENBRAND



WÄRTSILÄ

BRADY

PENTAIR

ABEL
Pump Technology

Blackstone

DEMATIC

TERRASOURCE
GLOBAL

IMI Precision
Engineering

STIRLING SQUARE
CAPITAL PARTNERS

coperion

TRELLEBORG

spectris

Phoenix Equity
Partners

Red Valve

GENSCAPE

AMERICAN SECURITIES

"The reasons we choose Plural are: comfortable process and project delivery, they give their opinion rather than sit on the fence, they are flexible to our needs and the final product meets or exceeds our expectations each time."

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