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MARKET OVERVIEW AND M&A ACTIVITY

Industrial Automation

November 2022

M&A advisory experts in the **Industrial Automation** industry

Dedication and passion for high-performance

Oaklins

Oaklins – your trusted M&A advisor for transactions in Industrial Automation industry

- Oaklins has been active as an experienced M&A advisor for sell- and buy-side transactions in this industry for several years
- Excellent relationships to major market players in the industry
- Personal advice and counselling during the entire transaction process
- Global presence with offices in more than 45 countries enables Oaklins to deliver high-quality results for all stakeholders
- This results in the best possible merger, acquisition and divestment opportunities in the field of industrial automation

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Executive summary

Market attractiveness

- Market size: €328bn in 2021
- Growth CAGR (21-25): >8%
- Numerous market drivers mainly underpinned by secular trends result in long-term tailwinds:
  - Digitalization
  - Labor scarcity
  - Energy prices
  - Safety requirements
  - Production complexity
  - Financing costs
- The pandemic accelerated the market transformation where operational and informational technologies converge

M&A relevance

- Excellent measure to cope with tech-driven market transformation and the ongoing consolidation

Strong deal flow

- 135+ deals on average p.a. (L5Y) globally
- Strong Deal flow Increase 2021/22: >175 p.a.
- Investors like...
  - ... solid market base
  - ... the vast market / application areas
  - ... excellent growth perspectives
- By adopting emerging technologies and improving competitive market positioning offers significant value creation potential

Company universe

- Existing market segments dealing with components & systems are highly fragmented while new segments focusing on Smart technologies arise and evolve with plenty of new players
- Estimated current number of relevant companies across all segments

Germany
# of large caps[2]: ~10
# of mid caps[3]: ~50
# of small caps[4]: ~500

Global (incl. Germany)
# of large caps: ~50
# of mid caps: ~250
# of small caps: >3,000

Source: Oaklins; 1) Small and medium sized enterprises, 2) Revenues > €1bn, 3) Revenues > €250m, 4) Revenues < €250m

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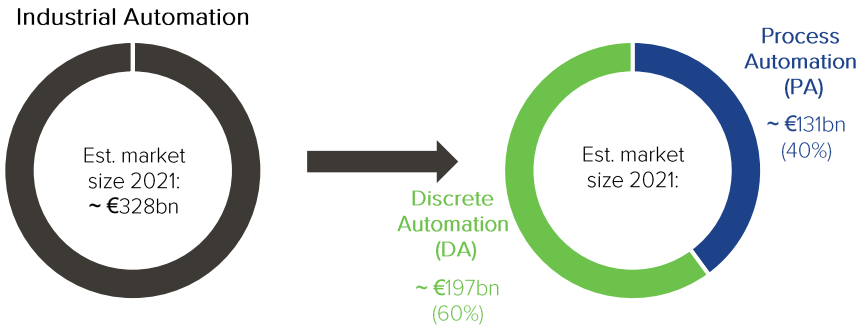
Outlook

- The Industrial Automation (IA) market is driven by global major trends impelling a holistic market transformation
- M&A is essential for a timely proper strategic positioning and offers significant value creation potential
- While Large enterprises (e.g. Siemens, Rockwell) have already hit the road to transform their businesses by acquiring smart technologies, SMEs[1] are appreciably following to assure their relevance locally and globally
- Several trends propelling the market on a stable mid- to long-term perspective, e.g.:
  - Ongoing digitalization demands can be addressed by co-operation with and/or integration of startups / scale-ups to drive transformation
  - Scarcity of employees can be counteracted by integration of cobots / robots resulting in higher productivity and less dependency
  - Instability of supply chains emphasized by ongoing deglobalization can be softened due to higher connectivity and control of supply chain and production processes
  - IA increases the level of transparency and documentation to fulfill ESG requirements and improves sustainability

Market segmentation

- Global Industrial Automation market consists of two core sub-segments, Discrete Automation (DA) and Process Automation (PA), with industry specific differences
- Both segments help in minimizing costs, ensuring fast production, standardizing manufacturing, ensuring product quality, reducing waste and monitoring production processes
- PA & DA require various devices (i.e. motors, drives, valves, sensors) and solutions (i.e. distributed control systems (DCS), programmable logic controllers (PLC)), and wired and wireless communication protocols to ensure communication between field devices and control solutions
- In general, Process Automation has longer tech cycles than Discrete Automation (3-5 years)

Segmentation



Selected characteristics

Discrete Automation

- **Automated system** to control processes in plants
- Key controlling devices amongst others are **motors, drives and switches** mainly connected by a **PLC solution**
- Communication runs via **wired** and **wireless networks**
- OEMs are the major customer group with **tech cycles of 3-5 years**

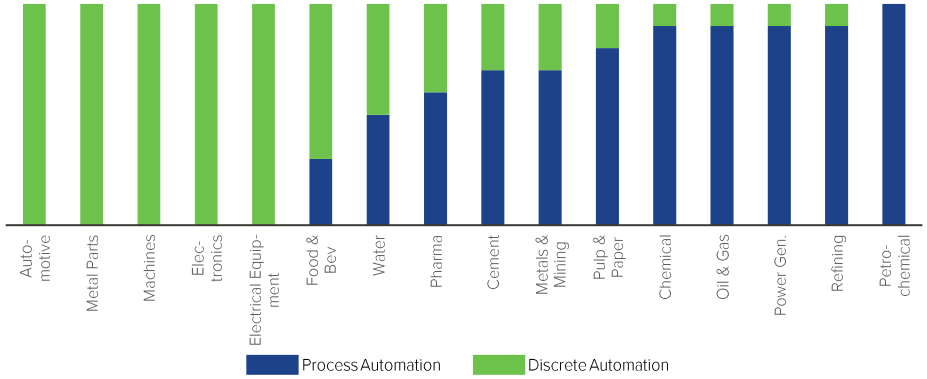
Process Automation

- Core applications deal with **handling of fluidic media** and **materials** in **chemical, physical, biological** processes
- Key controlling devices amongst others are **valves and sensors** connected by a **DCS solution**
- Most industry verticals are characterized by **medium to long-term technological cycles**

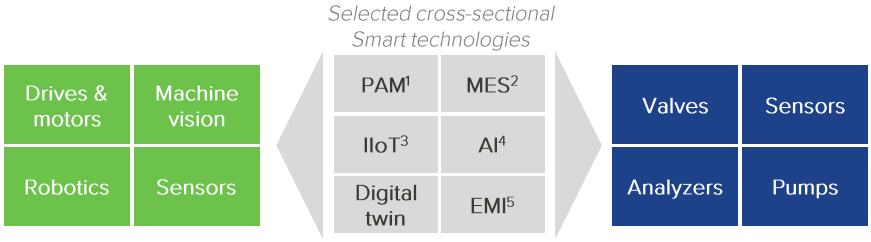
Source: Oaklins Research

Market specifics – End customers & technologies

End customer markets split by Process & Discrete Automation Segments



Selected technologies by Process & Discrete Automation Segments



Source: Oaklins Research; ; 1) Plant Asset Management, 2) Manufacturing Execution System, 3) Industrial Internet of Things, 4) Artificial Intelligence, 5) Enterprise Manufacturing Intelligence

- DA and PA address either distinct or hybrid end customer markets (e.g. Food & Bev, Water, Pharma) with a specific set of devices and cross-sectional technologies
- Automotive holds the largest share of the discrete automation market while oil & gas represents the biggest market when it comes to Process Automation
- Across all industries, the accelerating digitalization in which sensors, machines, and IT systems will be connected along the value chain result in increasing demands for Smart technologies
- Manufacturers can determine possible defects and failures in advance and avoid future losses by implementing smart technologies such as PAM, Digital Twins or EMI

Market development

IA is key for global infrastructures with a rising demand due to regulatory requirements and necessary higher productivity gains, resulting in estimated market growth of >8% (CAGR 21-25)

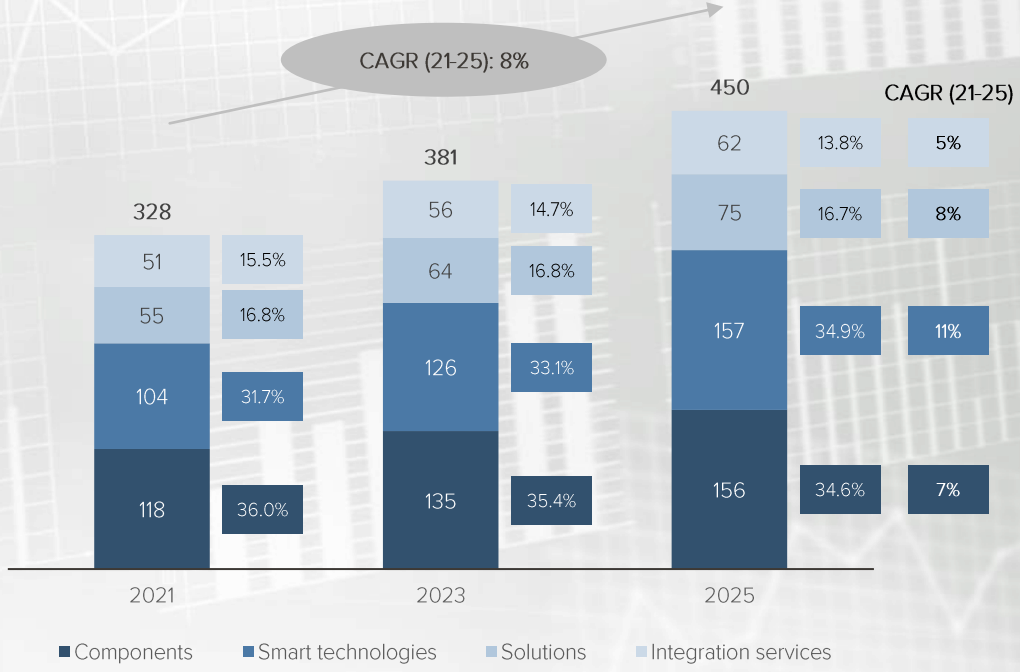
The market growth can be attributed to e.g.

- The rising emphasis on regulatory compliance in key industries
- Increasing adoption of smart technologies (i.e. IIoT, Digital Twin) accelerated by the pandemic across industries
- The supply chain disruption will lead to re-shoring of production in North America & Europe
- Rising demand for proactive solutions that can determine failures at component level (condition monitoring, predictive maintenance etc.)
- Growing labor wages and scarcity in major manufacturing hubs

Fastest growing (CAGR 21-25: 10.8%) segment Smart technologies includes sub-segments with exceptional CAGRs 21-25:

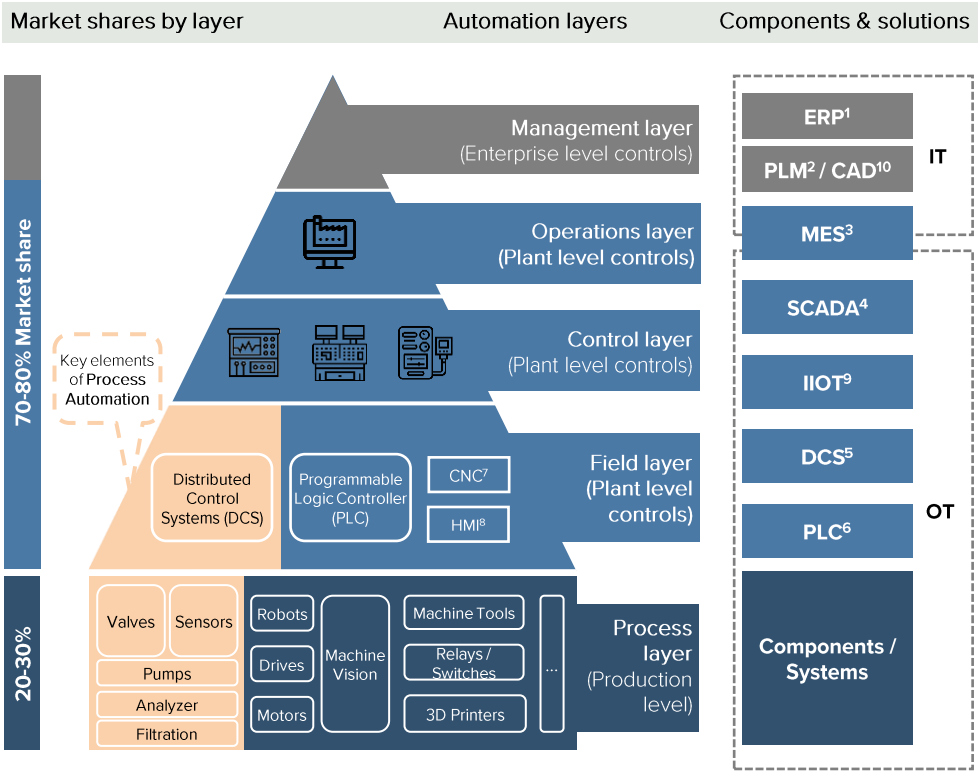
- Enterprise Manufacturing Intelligence: 18%
- Collaboration Robots: 40%
- Digital Twins: 45%
- Artificial Intelligence: 50%

Industrial Automation - Market development per segment (in €bn)



Source: Oaklins Research

Market structure – Automation pyramid principle



- Market runs on a pyramid structure with different layers on three core levels:
  - **Enterprise level** deals with the planning and information sharing technologies that allow a company to ensure its business objectives govern the operation of its plant level control systems. The main software suites are ERP, PLM and CAD
  - **Plant level** consists of hardware & software elements to manage, monitor and control manufacturing and production processes within a factory
  - Production level is composed of various devices like sensors, valves, analyzer, robots etc.
- Discrete Automation and Process Automation are mainly differentiated within the bottom layers Field and Process

Source: Oaklins Research; ; 1) Enterprise Resource Planning, 2) Product Lifecycle Management 3) Manufaturing Execution System, 4) Supervisory Control and Data Acquisition 5) Distributed Control System, 6) Programmable Logic Controller, 7) Computerized Numerical Control, 8) Human Machine Interface, 9) Industrial Internet of Things, 10) Computer-Aided Design

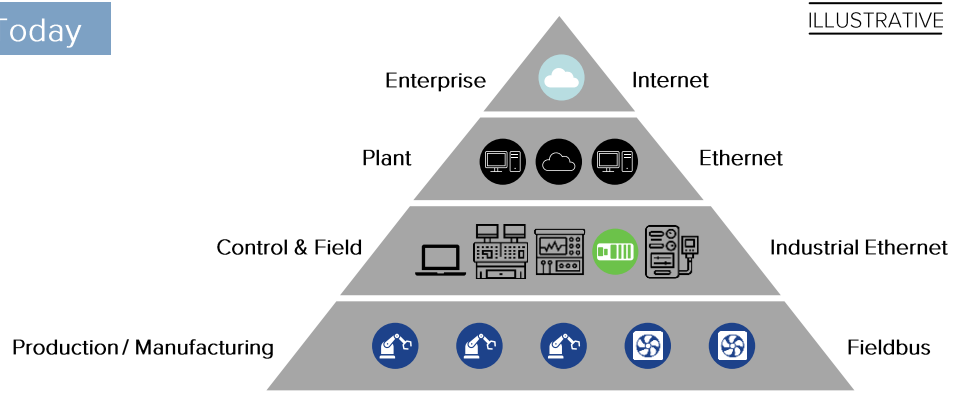
Pyramid transformation

- Horizontal convergence clearly taking place across Discrete and Process plant control segments with a step up in capital deployment
- Vertical expansions - industrial solution players are reaching up into PLM and operational software layers while devices players are pushing into controls and even direct connectivity to cloud
- As every automation player focuses on connectivity and development of predictive maintenance or processes optimization solutions based on data the ongoing implementation of smart technologies are reshaping the automation pyramid structure and transform it into network-based platforms
- SMEs will leapfrog the large corporates regarding adoption and implementation of IIoT, cloud, and analytics, as their existing IT investments are lower
- Decreasing costs of sensors and software platforms has enabled SMEs to increasingly leverage IIoT cloud solutions and will benefit from the automation potential

Due to the pandemic digitalization accelerates and companies focus reinforcing or rebuilding the IT infrastructure (incl. cloud)

Today

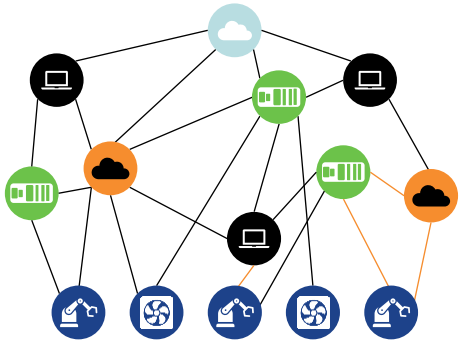
ILLUSTRATIVE



Tomorrow

ILLUSTRATIVE

Purpose-specific and network-based platform



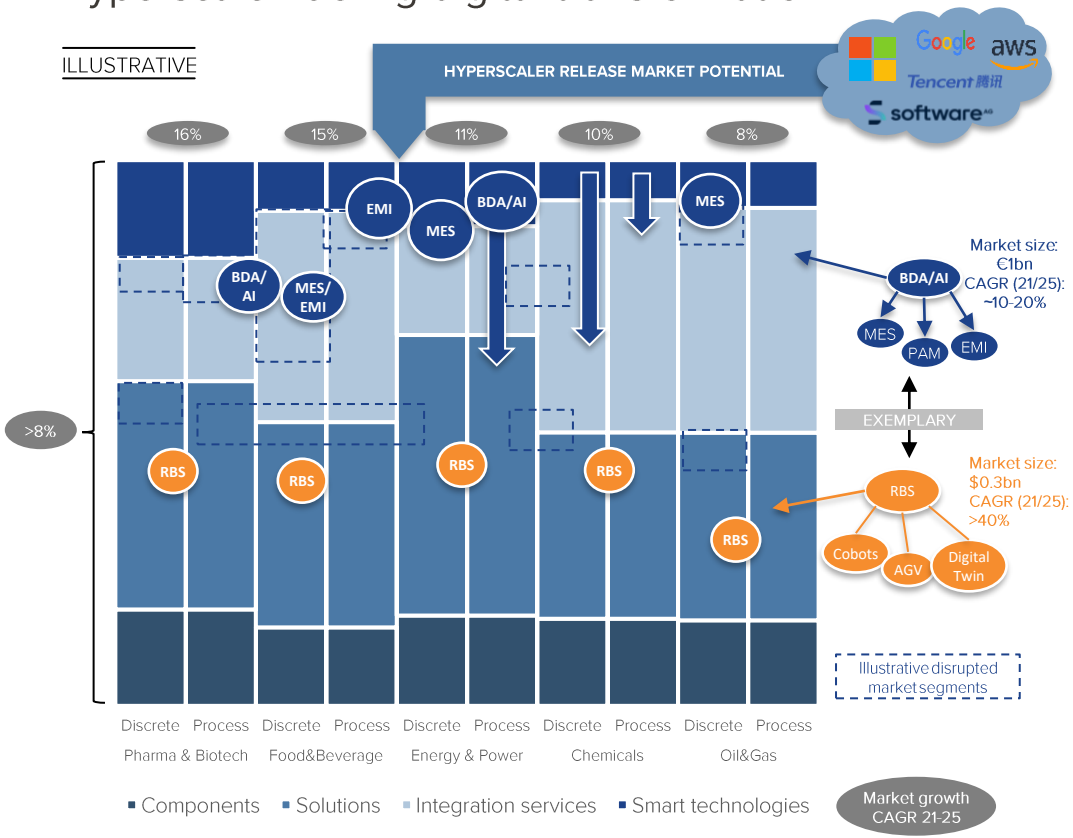
...

IIoT

...

Source: Oaklins Research

Hyperscaler fueling digital transformation[1]



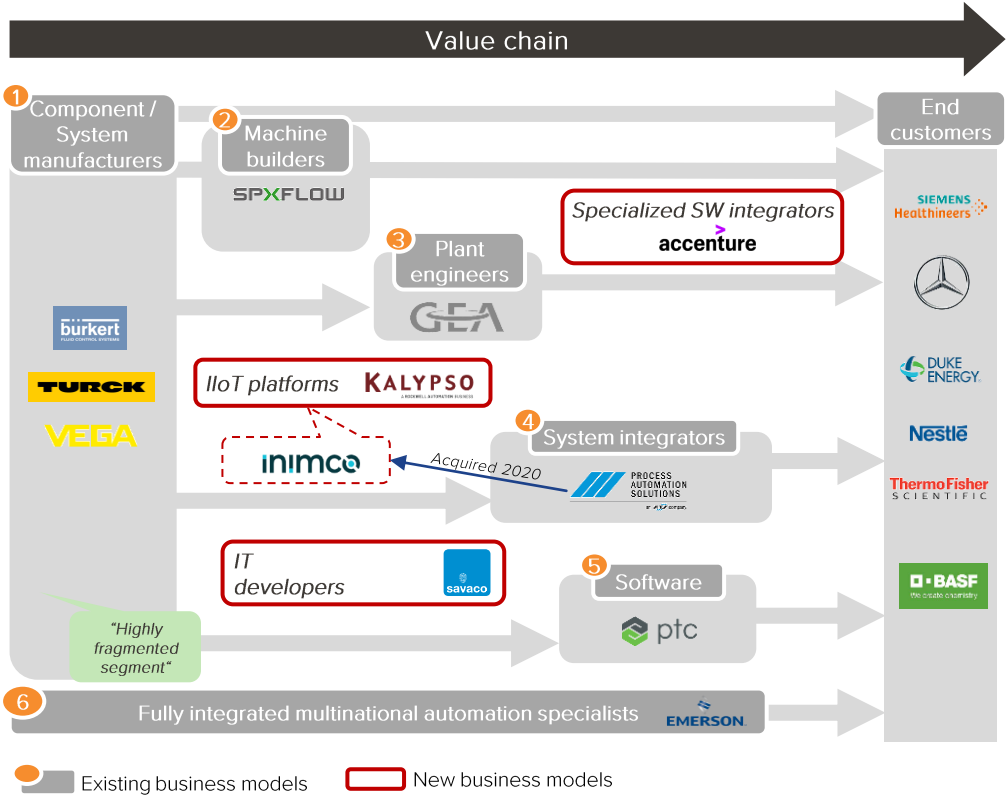
- Hyperscaler (i.a. Microsoft) entering into various industries by implementing cloud infrastructure and corresponding software applications
- Digital adoption might replace partly traditional hardware solutions like PLC, DCS, SCADA or other control solutions by digital applications through inter alia edge computing
- Big players have the technological capabilities to stay ahead of the competition, but for smaller device manufacturers it is tough to offer cost-competitive enough solutions to stay ahead of competition in the long run
- If further external players enter the controls market the competitive landscape changes and the established players need to accelerate digitalization to defend market positioning and participate from high growth segments

Source: Oaklins Research; 1) Selected end customer markets for Process Automation applications

New Business Models

- IT and IIoT companies are more and more becoming acquisition targets for OT companies
- Engineering technology companies (e.g. Plant Engineers, System Integrators) are likely to become future targets as well, given their influential position
- Hardware companies need strong partnerships with software players or grow their own business in order to succeed with digitalization
- As application specific software solutions become more and more important for Industrial Automation further acquisitions of software companies by automation hardware players are likely
- New revenue streams are emerging and will be crucial for a successful market positioning (e.g.):
  - Product-as-a-Service
  - Platform-as-a-Service
  - Everything-as-a-Service
- Innovative products with amortization cycles <12months are key to succeed

Offerings w/ short-term cost savings payback and safety-related, like predictive maintenance, remote monitoring and PaaS[1] prevail



Source: Oaklins Research; 1) Platform-as-a-Service

Market landscape

Enterprise control level (Solutions I IT):

- ERP dominated by large software IT companies. In PLM, Siemens is the only Industrial Automation player in the space, competing with specialists Dassault, PTC and Autodesk

Plant control level (Solutions I Engineering I Integration):

- By end-markets and applications fragmented segment; especially the MES market is dominated by regional, niche players specialized in one industry or application

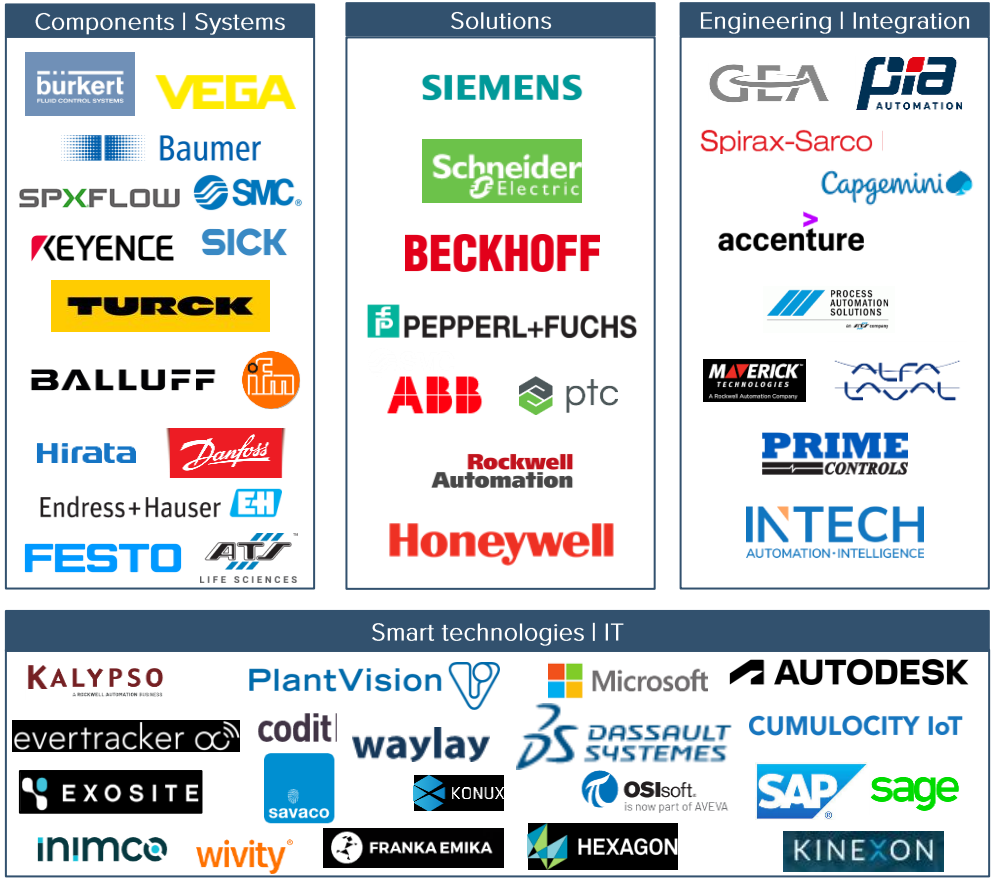
Production level (Components I Systems):

- Highly fragmented, consists of numerous niches each with a specific combination of end-customer application and technology focus. Companies move from component offerings to solutions (incl. software) as it is harder to distinguish itself via hardware components only

Cross-sectional Technologies (Smart technologies):

- Fast growing and fragmented segment with plenty of niches

Snapshot of the IA market segments with selected players



Source: Oaklins Research

Selected components & systems manufacturers

SMC	**Headquarter:**	Japan	Specializes in pneumatic control engineering to support Industrial Automation. SMC develops a broad range of control systems and equipment, such as directional control valves, actuators, and air line equipment, to support diverse applications.
	Employees:	~21,600	
	Revenues:	€5.0bn	
FESTO	**Headquarter:**	Esslingen	Festo produces and sells pneumatic and electrical control systems and drive technology for factories and Process Automation.
	Employees:	~20,000	
	Revenues:	€2.9bn	
Endress+Hauser	**Headquarters:**	Reinach	Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. The portfolio encompasses measurement instrumentation, services and solutions for industrial process engineering.
	Employees:	~14,000	
	Revenues:	€2.6bn	
bürkert FLUID CONTROL SYSTEMS	**Headquarters:**	Ingelfingen	Bürkert is one of the world's leading manufacturers of measurement and control systems for liquids and gases. The portfolio encompasses systems for measuring and controlling gases and fluids from individual valves, sensors or controls up to complete automation solutions and fluid systems.
	Employees:	~3,000	
	Revenues:	€0.6bn	
VEGA	**Headquarters:**	Wolfach	VEGA delivers customized measuring instruments and solutions. Its expansive product portfolio spans sensors for the measurement of level, point level and pressure to high-performance hardware and software for integration into process control systems.
	Employees:	~1,600	
	Revenues:	€0.4bn	

Source: Company websites, Capital IQ, Oaklins research, Bundesanzeiger

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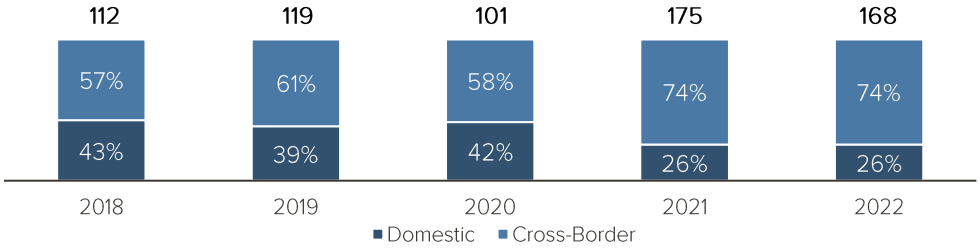
The market layer for components & systems is highly fragmented

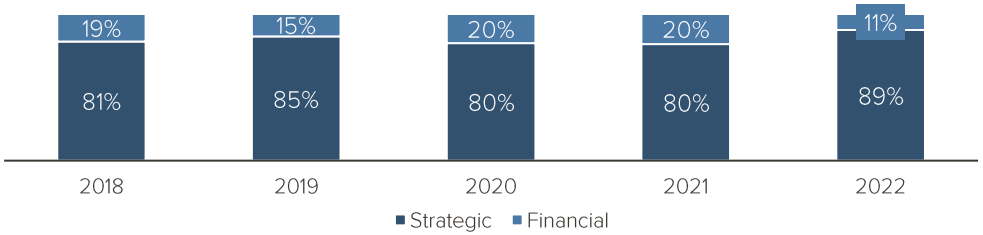
- Currently, the global market for Industrial Automation components is highly fragmented. However, most of the key players are based in Europe, US and Japan
- Smaller players that are active in the components market are mainly situated in Europe and cover mostly a couple of niche applications based on a specific technology
- Established and internationalized incumbents like Bürkert, Vega or E+H are dominating their markets and possess high entry barriers, nevertheless the demand for digitalization is an increasing challenge and is key to stay ahead of the market
- Small- and midsized players in Europe are struggling with the recent market developments as they have to cope with defending their market positioning against Asian low-cost competitors and drive digitalization simultaneously
- Each player in this segment is forced to increase the share of software based recurring revenues to stay ahead of the market and defend profitability

M&A activity*

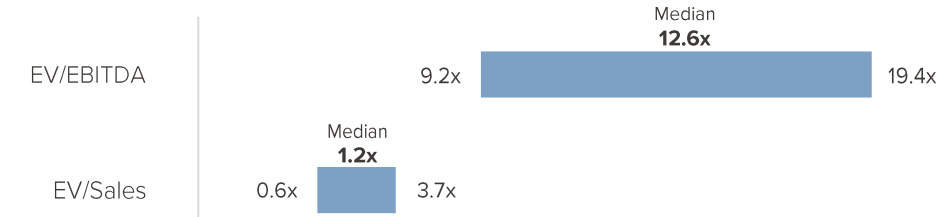
Domestic vs. cross-border transactions (in total; in %)



Strategic vs. financial buyers



Transaction multiples*2 (2018 – 2022)



*All activities refer to the global Industrial Automation market
*1 as of 21-October-2022
*2 shows the 25% and 75% quartiles for EV/EBITDA and EV/Sales
Source: Mergermarket as of 21-October-2022

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Pandemic increased deal flow significantly

- Cross-border activity was increasing between 2020 and 2022 despite Corona limitations. Most likely the total number of transactions will be above 200 in 2022. As of October 2022, the M&A activity is divided into 76% cross-border deals and 24% domestic deals
- The industry is primarily dominated by strategic players, profiting from know-how and product extension synergies
- Strategic players dominate the M&A activity in the overall Industrial Automation market as companies follow an inorganic growth strategy to improve market positioning
- Transaction multiples are based on precedent transactions within the Industrial Automation market within the last 5 years as of October 2022
- The median of the EV/Sales multiple values at 1.2x and includes 58 transactions, while the median of the EV/EBITDA multiple is 12.6x including 38 transactions

Siemens pivots towards tech by M&A

Key benefits

1. Insourcing of expertise for new technologies and automation solutions
2. Expansion of product portfolio according to changing market trends
3. Access to new market segments with different applications
4. Use of cross-border deals to enhance market shares

"..., Siemens is active in sectors that form the backbone of the global economy and offer great potential for digital transformation and enhanced sustainability – the major challenges of our time.."

Roland Busch, CEO of Siemens

"Digitalization, automation and sustainability are growth engines for our business."

Roland Busch, CEO of Siemens

Between 2007-2022, Siemens invested over €10bn in software companies to drive digital transformation

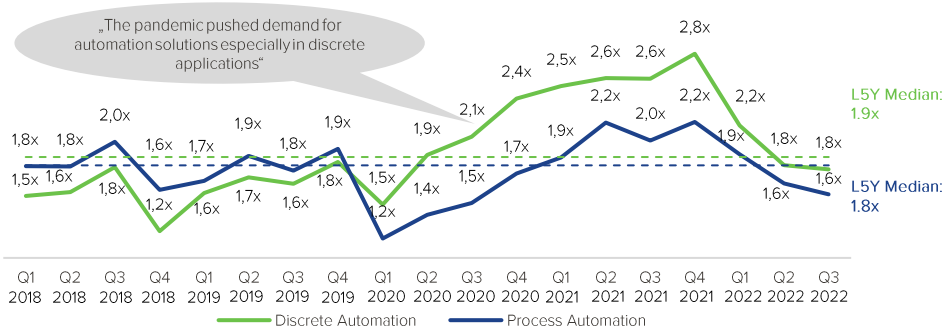
Target	Year	Country
ZONA Technology, Inc.	2022	
INNOVATION STRATEGIES S.L.	2022	
Brightly Software, Inc.	2022	
FORAN	2021	
SupplyFrame, Inc	2021	
WattSense	2021	
Culgi B.V.	2020	
Vizendo AB	2020	
AIT GmbH & Co. KG	2020	
Process Systems Enterprise	2019	
Pixeom, Inc.	2019	
Saab Medav Technologies	2019	
Building Robotics, Inc. (Comfy)	2018	
J2 Innovations, Inc.	2018	
Enlighted, Inc.	2018	
COMSA SA	2018	
Lightwork Design, Ltd.	2018	
Mendix Inc.	2018	

Target	Year	Country
TASS International B. V.	2017	
Infolytica Corporation	2017	
Mentor Graphics	2017	
Cd-adapco Co., Ltd.	2016	
Polarion Software, Inc.	2015	
Camstar Systems, Inc.	2014	
TESIS GmbH	2014	
LMS Solutions Sprl	2014	
Preactor Europe SAS	2013	
IBS AG	2012	
Kineo CAM Corporation	2012	
Perfect Costing Solutions	2012	
Active SA	2011	
Elan Software Systems SA	2009	
Innotec GmbH	2008	
ETM professional controls	2007	
VISTAGY, Inc.	2007	
UGS Corporation	2007	

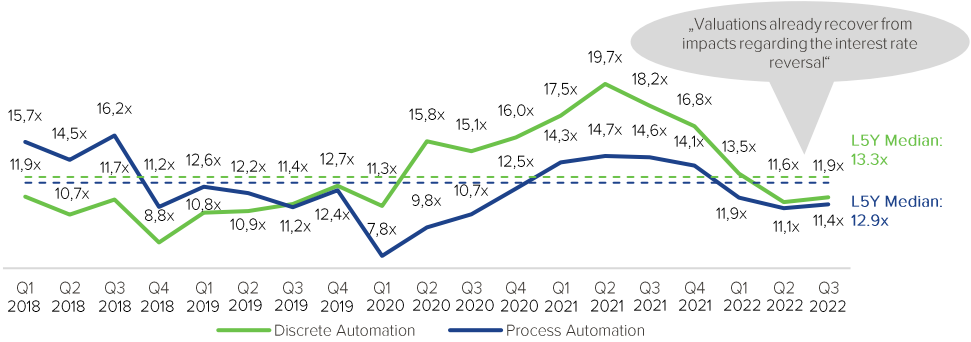
Source: Oaklins Research, Mergermarket and Capital IQ as of October-2022

Valuation trends of quoted peers (mainly hardware)

Valuation of comparable companies - TEV/Sales (Q1 2018 – Q3 2022)



Valuation of comparable companies - TEV/EBITDA (Q1 2018 – Q3 2022)



* Excluding outliers and negative values
Source: Capital IQ as of 21-Oct-2022

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Current valuation

Process Automation

The current valuation of peers:

- 1.6x EV/Sales is slightly below L5Y median
- 11.4x EV/EBITDA includes a discount of 12% compared with L5Y median

IMI, Spirax-Sarco, Flowserve, Emerson, Krones, xylem, GEA, Sulzer

Discrete Automation

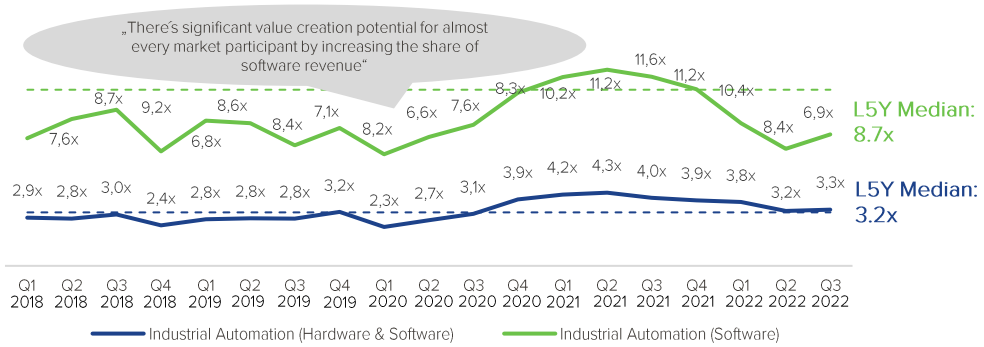
The current valuation of peers:

- 1.8x EV/Sales is slightly below L5Y median
- 11.9x EV/EBITDA includes a discount of 10% compared with L5Y median

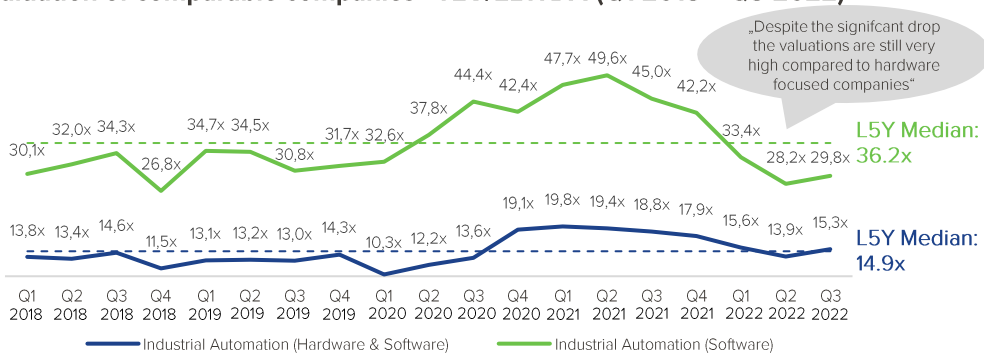
mx automation, ABB, SMC, Hirata, Barnes Group Inc, Parker, OMRON, ATI

Valuation trends of quoted peers (mainly software)

Valuation of comparable companies - TEV/Sales (Q1 2018 – Q3 2022)



Valuation of comparable companies - TEV/EBITDA (Q1 2018 – Q3 2022)



* Excluding outliers and negative values
Source: Capital IQ as of 21-Oct-2022

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Current valuation

Industrial Automation (Hardware & Software)

The current valuation of peers:

- 3.3x EV/Sales is slightly above L5Y median
- 15.3x EV/EBITDA includes a small premium of 4%

SIEMENS EMERSON Honeywell Rockwell Automation

Industrial Automation (Software)

The current valuation of peers:

- 6.9x EV/Sales includes a discount of 20% compared to L5Y median
- 29.8x EV/EBITDA includes a discount of 18%

ptc HEXAGON DASSAULT SYSTEMES AVEVA CONTINUAL PROGRESSION

M&A Outlook

High value creation potential

1. Software is a key element to accelerate industrial automation and therefore important for both major global players to enrich their portfolios and for niche players to stay at the technological forefront

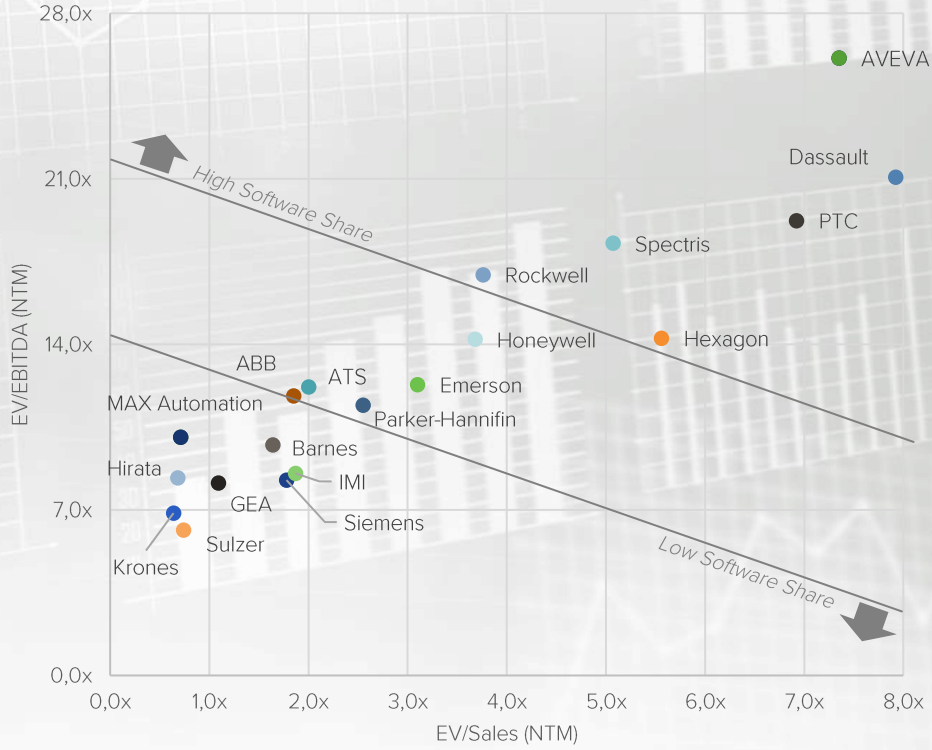
2. M&A activity stays with high cross-border percentage and with attractive transaction multiples between 2.0-4.0x EV/Sales and up to 20.0x EV/EBITDA depending on business mix

3. Recurring revenues from software & services improve margins and offers significant valuation potential, therefore a high number of market participants strive to increase software share

4. The combined expertise on software and hardware becomes a pre-requisite across product offerings in terms of market leadership on mid-term

5. Investors look for platforms to add digital solutions such as Digital Twins, Predictive Maintenance, Condition Monitoring executing attractive buy-and-build strategies

During the next 24 months M&A activity will even gain momentum driven by strategic and financial investors to expand software share



Source: Capital IQ as of 21-Oct-2022

Oliver Grigat
Director

- Since 2022 Director with Oaklins focusing on Industrial Automation and Real Estate Software
- 10 years Head of Corporate Development/M&A with Bürkert Fluid Control Systems, Process Automation Solutions (Part of ATS Automation Tooling Systems Inc.) and Aareon AG (Subsidiary of Aareal Bank AG & Advent International)
- 6 years M&A-Advisor (i.a. @Visory Partners (now Clearwater International), Accenture)
- Bachelor of Science in Finance (Wiesbaden Business School) and Master of Business Consulting (Wismar Business School)

Why is Oaklins a good match for your strategic considerations?

- We are excited about the current market development and the huge value creation potential that goes along with it.
- The Industrial Automation ecosystem is uniquely familiar to us: we have several years of personal work experience with components/systems manufacturers, machine builders, system integrators and software companies

bürkert FLUID CONTROL SYSTEMS · ATS LIFE SCIENCES · PROCESS AUTOMATION SOLUTIONS an ATS company · Aareon · accenture

- We have a local team in Frankfurt with a strong global industry network in the Industrial Automation market
- Please get in touch trustfully anytime:

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Oaklins at a glance

Deep local roots, global commitment

Oaklins brings you opportunities from across the world and we meet you with our expertise wherever you are.

Oaklins offers a comprehensive range of services:

- M&A advisory (buy- and sell-side)
- Growth equity and equity capital markets advisory
- Debt advisory
- Corporate finance services

Oaklins is the world's most experienced mid-market M&A advisor, with over 850 professionals globally and dedicated industry teams in more than 45 countries. We have closed 1,700 transactions in the past five years.

If mergers, acquisitions, or divestitures of businesses or business units are part of your strategy, we would welcome the opportunity to exchange ideas with you.

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Global Reach