

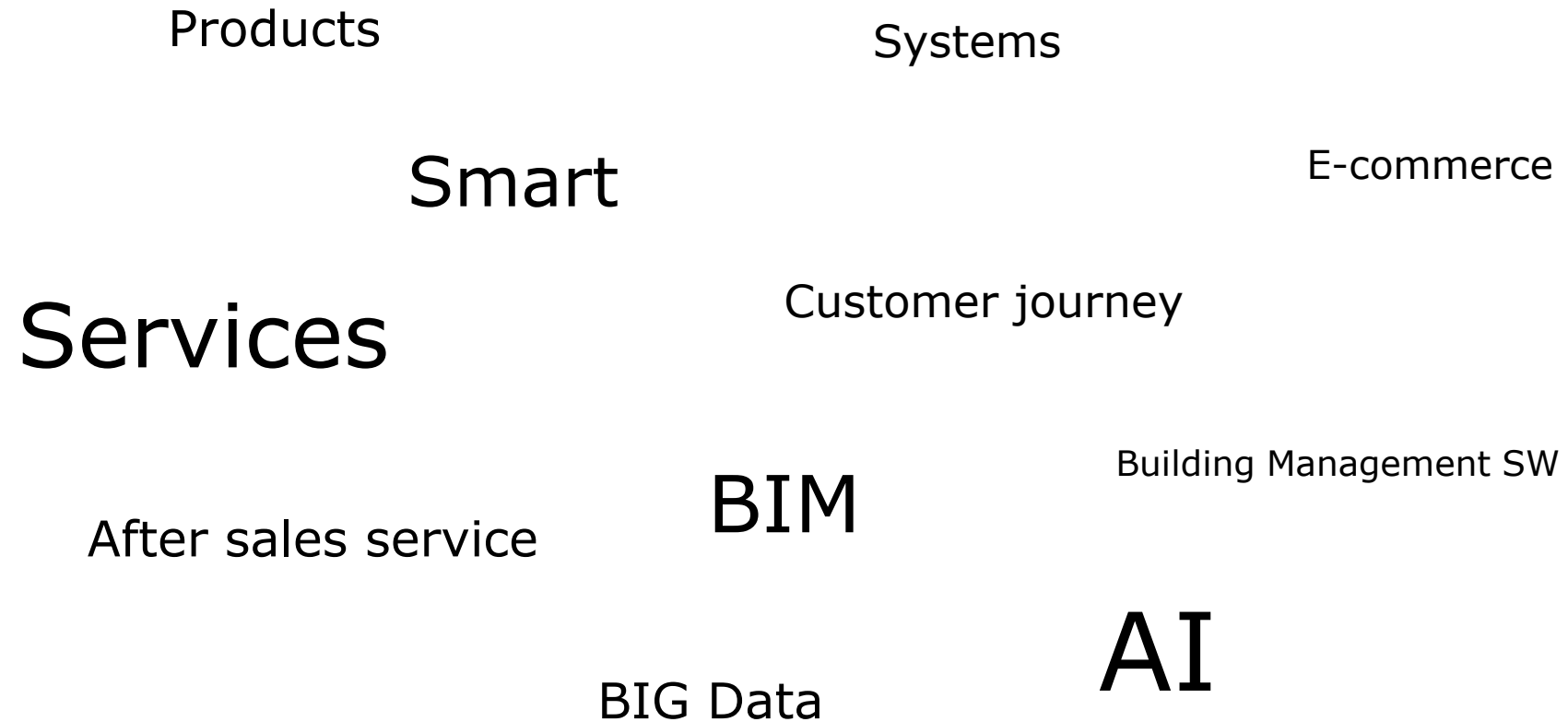
The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

Digital Change in the industry

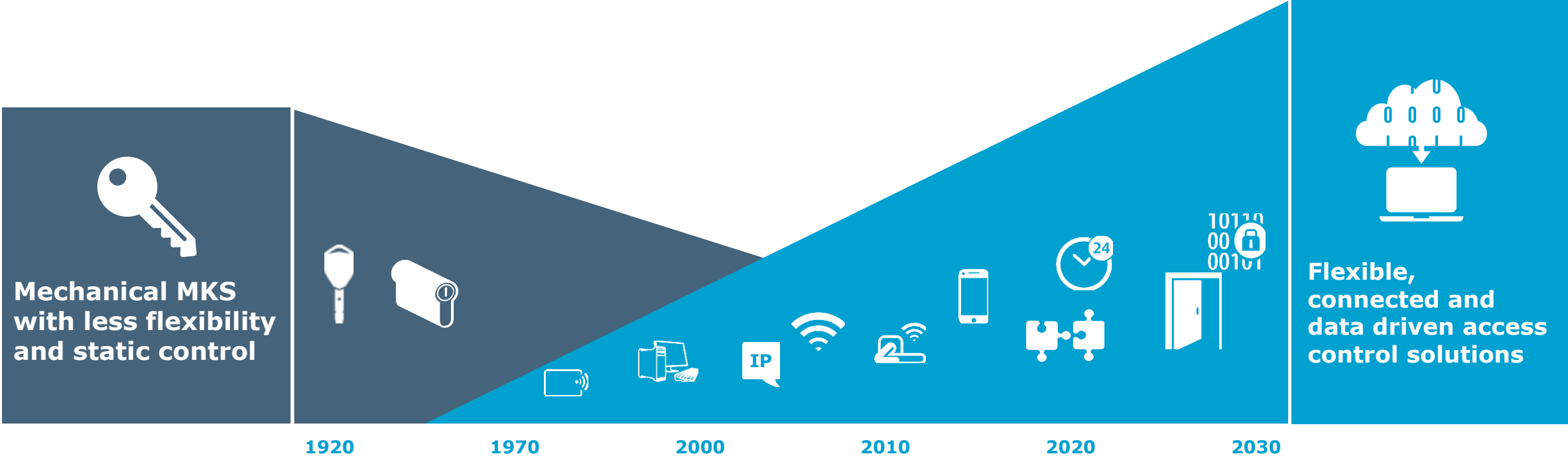
Robert Siegmund, SVP Commercial Development EMEIA

ARGE 2022, Stockholm, September 09th 2022

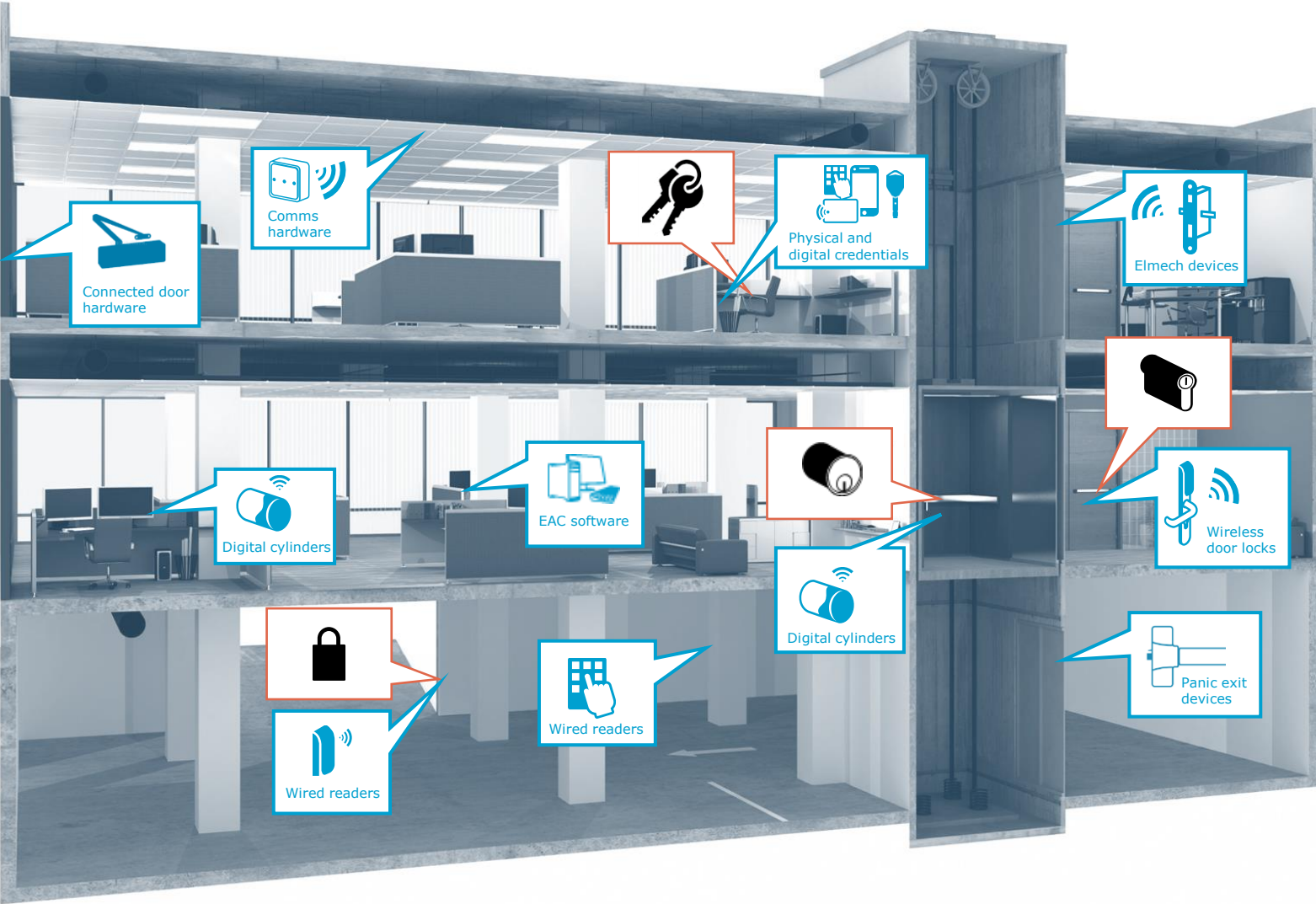
Digitisation is everywhere in our industry



The evolution of access management



Building environment evolution



2000

Mechanical solutions

- Cylinders throughout the building
- High security access points with wired access control

2020

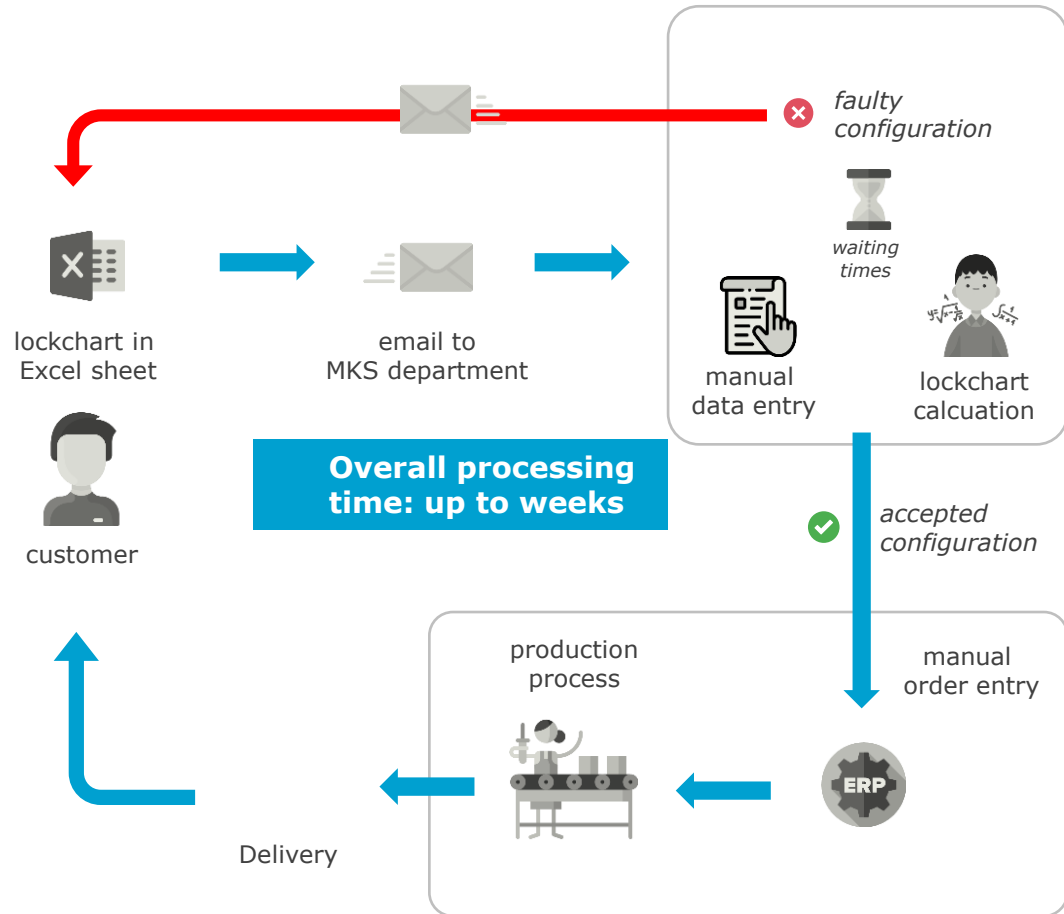
Digitized solutions:

- Connected wireless access solutions
- Flexible credentials & system admin
- Increased penetration of access points throughout the building

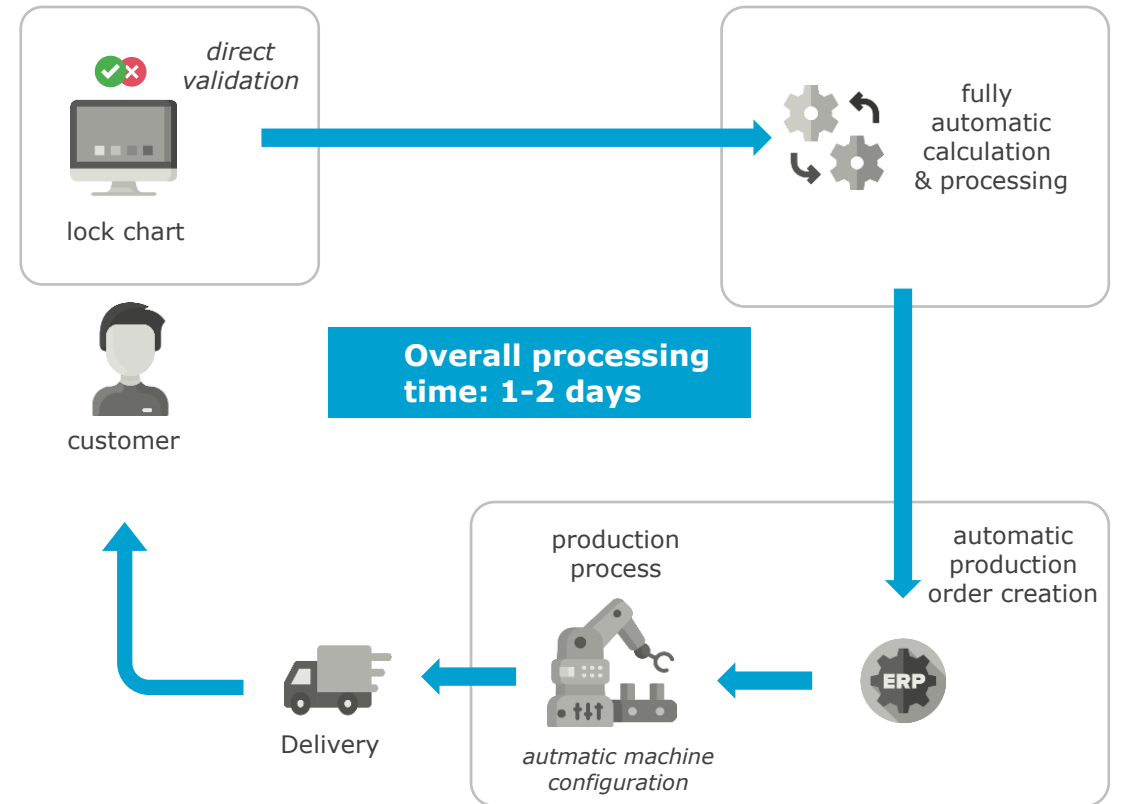
Digitalization in the Master Key System Industry

MKS Lockcharts

Traditional way to deliver MKS order



Digitalized way



Why Go Digital?

1

Work is changing: People expect an always-on flexible solution and state of the art technology

2

Information never gets lost: Suite stores all your lockchart data and customer information securely

3

Easy, powerful collaboration: Suite encourages smarter working across the full supply chain

4

Everyone in the loop, always: Automated updates and notifications make sure everyone sees the latest changes

5

Access remotely: You can view, share and amend lockcharts when you're out of the office and even access offline





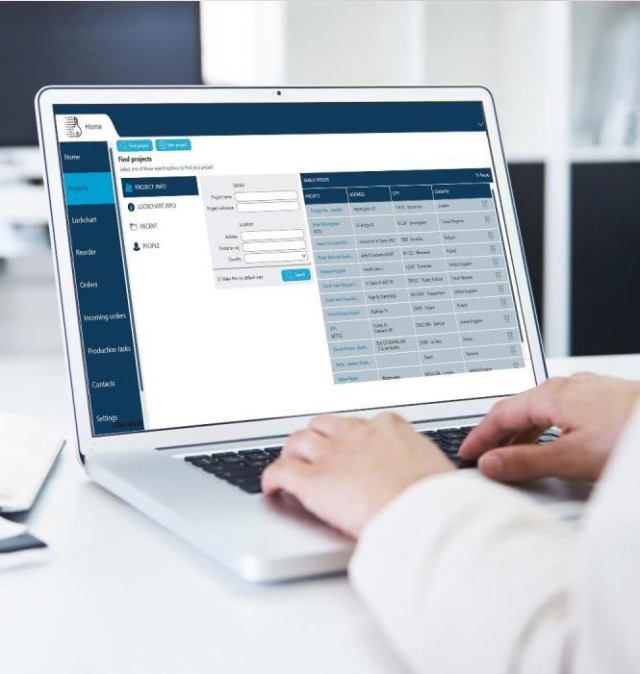
CREATE...

new lockcharts easily, select products conveniently from the database, and validate your planning.



ORDER...

or reorder directly in the software, track the status of your orders anytime and from anywhere, and reduce delivery times.



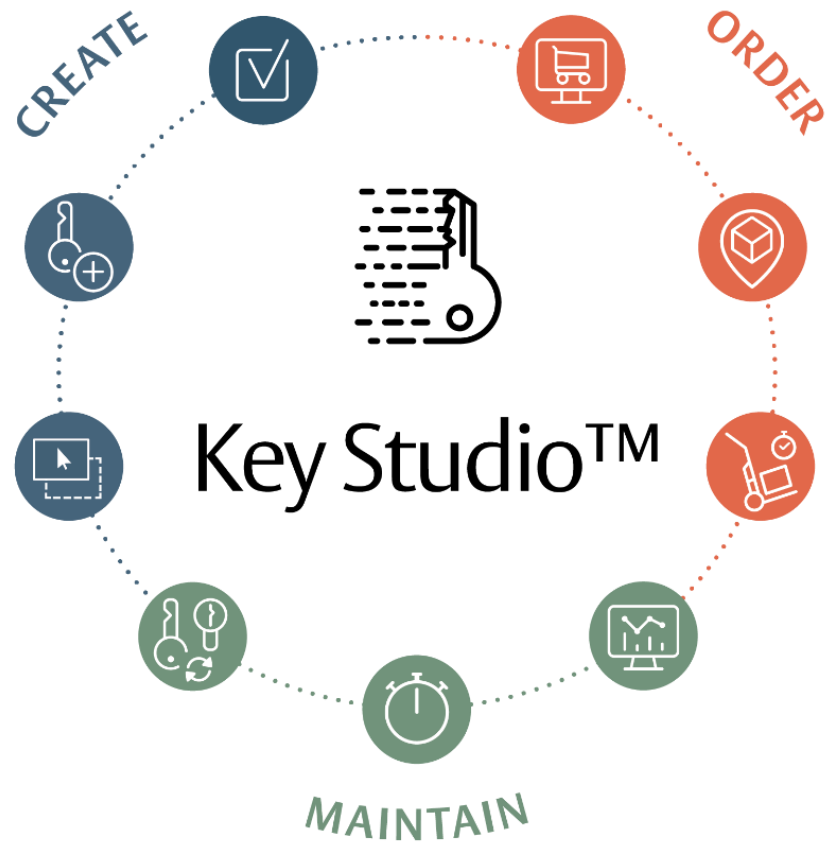
MAINTAIN...

your Master Key System with ease: you'll always have instant access to all your lockcharts or other important project data and can quickly modify.



- Create lockcharts visually and modify them easily
- Order replacement keys instantly and save time
- Always access up-to-date information and order status
- Manage your resources more efficiently
- Identify vulnerable locks easily when someone loses their key

Streamline every stage of the MKS lifecycle



- Create, order and maintain your Master Key System
- Extend and update with ease



Internal

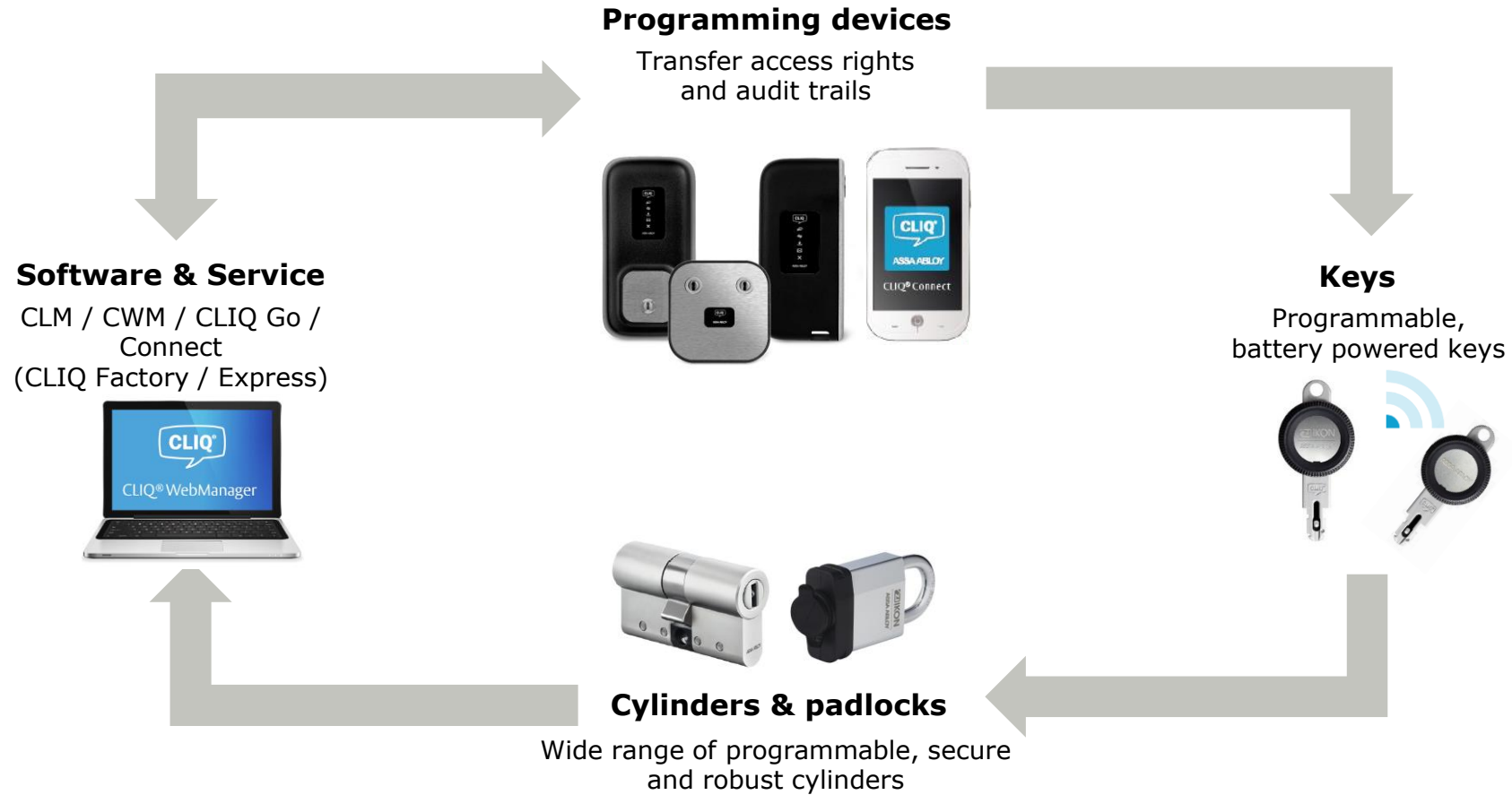
ASSA ABLOY



Requirements of a modern (e.g. eCLIQ) MKS

- **Security after key loss**
 - Re-validation for keys or blocking lost keys in cylinders can be done with a few clicks
- **Digital security**
 - 128bit communication encryption for elements and MFA for software components ensure high security levels
- **Analog security**
 - Proprietary chip prevents copying, modern engineering / design creates secure interaction of components
- **Keeping up with organizational changes**
 - Fully electronic key alike system components enable 100% flexibility in locking system structures
- **Form factor**
 - Compact plug design enables cylinder designs for all markets and installation situations
- **Big Picture**
 - 3 SW solutions and form factor creates a suitable solution for all verticals and segments

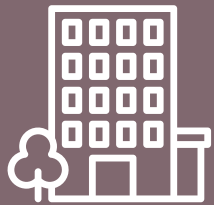
Components of an eCLIQ locking system



What's trending in access control?

**\$108.9
Bn**

Smart buildings
market by 2025
(Up from \$66bn in 2020)



© 2021 Markets & Markets

\$8.3Bn

EMEA market
revenue of
access control by
2027



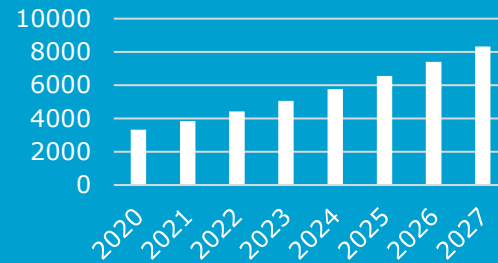
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14.0%

CAGR EMEA access control
market 2020-2027

Revenue forecast to 2027 (US\$Million)

\$M EMEA AC Rev.

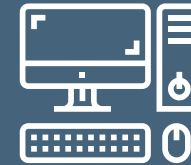


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14.4%

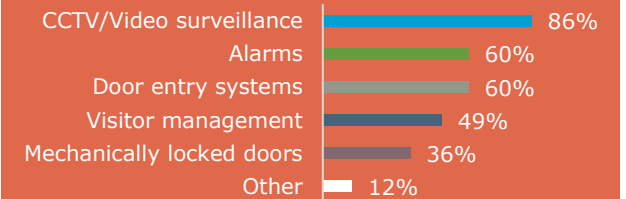
CAGR
(2020-2027)
ACaaS software

\$2.6Bn EMEA SW
market by 2027



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**Preferred third party
solutions to integrate
access control with:**



© 2021 WAC market report

Market Trends Evaluation

Technology



Security: EU commission Cybersecurity Act / end-to-end security requirements



Connectivity:
Ex Zigbee Alliance, working on IoT connectivity standards and credential technology



Seamless access: UWB, dynamic, AI powered biometrics & image analysis



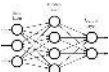
Biometrics: Facial Recognition, behavior tracking



Contactless access control technologies, convergence physical-logical



Distributed ledgers for trust / credentials (IOTA, Blockchain,...)



Deep learning for platforms / value / data analysis / behavior stats



VR – AR – MR for easier installation, maintenance, education, interaction



Harnessing the **data and information** from our products



Semiconductor tech for cost-down, connectivity, increased functionality within less physical volume

Services



ACaaS Remote security Management via Cloud services



Mobile Keys Subscriptions



API's – Integrations



24/7 Support

Market



Impacting Commercial market requirements
Remote Security Management
Hybrid working
Touchless door unlock
Management of office occupancy



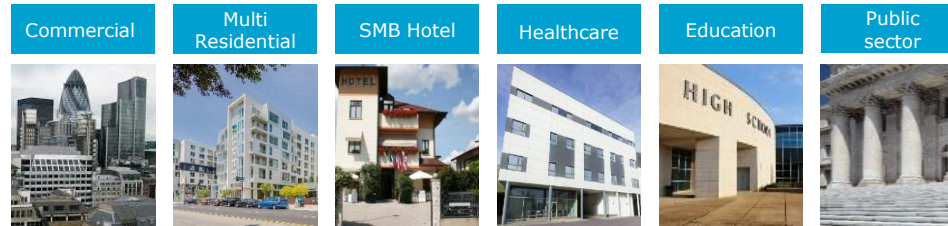
Cloud acceptance & adoption is accelerating, expected to grow five times faster than on Prem solutions in Mid Market application

EAC Standards EN60839 & UL294 market adoption of standards driving end user specifications



IOT adoption driving market to demand integration between EAC and 3rd party solutions

Build a flexible single IoT platform... INCEDO



...our customers have more options

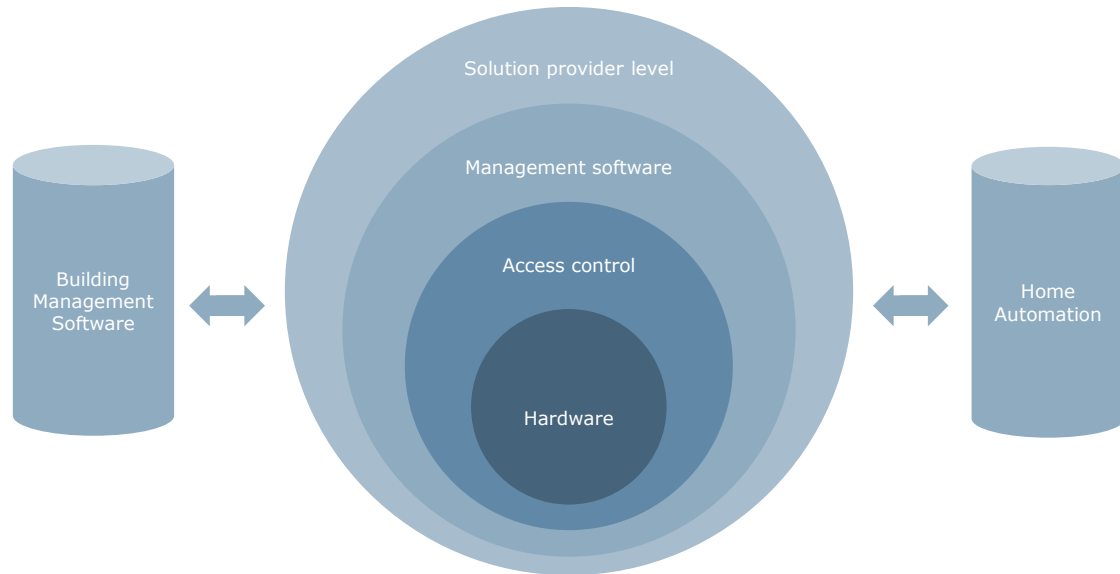
- Connectivity with 3rd party applications
- New business models & pricing options
- Data driven services
- Flexible hardware combination
- Technology alignment
- Mobile Access
- Digitized components

By introducing a platform-based eco-system...



Solution Layer Model

as per 2021



- **Hardware at the core**

- The door/ building element still needs to be locked/ secured by a mechanical locking element
- This element still needs to comply with all local standards for hardware and security

- **Access control systems**

- Create and manage access credentials and mediums.

- **Management Software**

- Manages access management, access delegation, limited third party services, onsite/ offsite locking points.

- **Solution Provider Level**

- Seamless integration, online central access, integrated 3rd party management enabling seamless UX.

- **Building Management/ Home Automation SW**

- Agnostic to locking solution and access management

Example: Multi-Residential Buildings



Today
Mostly physical



Tomorrow
Digital first



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Smart Architecture and Smart City Projects

Examples

The Line (NEOM)

Kingdom of Saudi Arabia

[THE LINE \(neom.com\)](https://www.neom.com)

Key Facts:

- Approx. 1 million residents to live
- GDP €48 billion
- 380k jobs by 2030
- Driven By Artificial Intelligence
- City of 170 Km length
- Invisible Service Grid without Cars & Roads

€500B

Planned Value

100%

Renewable
Energy

2024-

30

Completion

Smart Dubai

Dubai, United Arab Emirates



€1.5B
Savings

75%
Renewable
Energy

2050
Vision

Key Facts:

- Dubai Government adopted 100% paperless strategy
- Digitizing and adopting blockchain technology
- Plans to cut carbon emissions by 30% by the end of 2030

What's ahead?



- Wallet/Credential and Identity will be fully digital in the near future
- Networks will not be made by physical cable connections anymore- the drivers today – NFC, Bluetooth, IOT, 5G, Meta
- Access Management will be possible from anywhere to anywhere in real time.



Thank you

assaabloy.com

Experience a safer and more open world

Internal

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