

| Siemens Webbinarie

Siemens – en hållbar automationspartner för dig
som (slut-)användare

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Några olika kundkategorier

Integrator: Konstruerar, programmerar och idriftsställer på uppdrag av användare/OEM.



(Slut-)användare:
Den som använder
någon produkt i sin
produktionsanläggning.

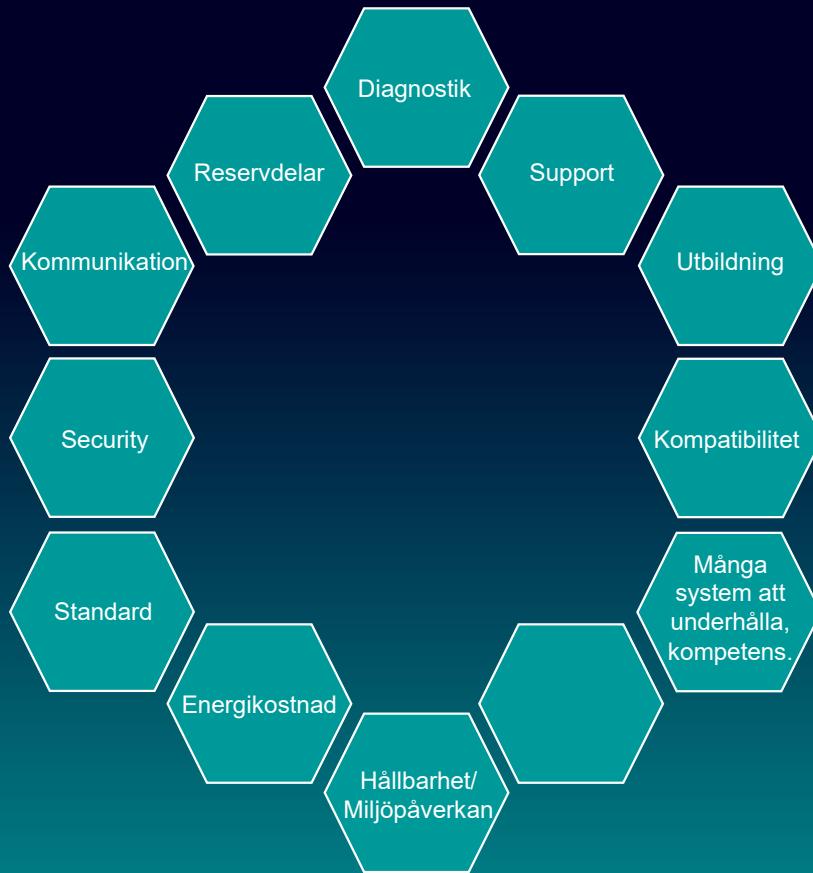


Distributör:
Återförsäljare av produkter.

OEM: Konstruerar och
bygger produktionsmaskiner.

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Vad är viktigt för en (Slut-)användare





FÖR ATT FORTSATT vara ett relevant och framgångsrikt företag strävar vi ständigt efter att ligga i framkant av den tekniska utvecklingen, hitta nya lösningar och navigera rätt i en föränderlig värld. Omvärldstrender som digitalisering, automatisering, elektrifiering och ett ökat hållbarhetsfokus påverkar hur vi agerar idag och i framtiden.

tidigare. Vi har även definierat tydliga mål för 2025. De senaste åren har Sandvik blivit ett mer kundnära, decentraliserat och finansiellt stabilt företag och vi står nu redo att fokusera på tillväxt. Coronapandemin orsakade visserligen en kraftig nedgång i efterfrågan under 2020 men vi har ändå lyckats bibehålla lönsamheten på en god nivå och 2021 har alla förutsättningar att bli ett bättre år.

inspirerade förpackningar (sidan 10) och vårt automatiserade konceptfordon för gruvindustri (sidan 14). Dessa tekniska lösningar gör våra kunder mer produktiva, effektiva och hållbara och är centrala för att vi ska fortsätta att vara kundens förstval.

**Stefan Widing,
vd och koncernchef**

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Vad är viktigt för en (Slut-)användare



Totally Integrated Automation Portal (TIA Portal)

One for all... The proven basis for innovative solutions



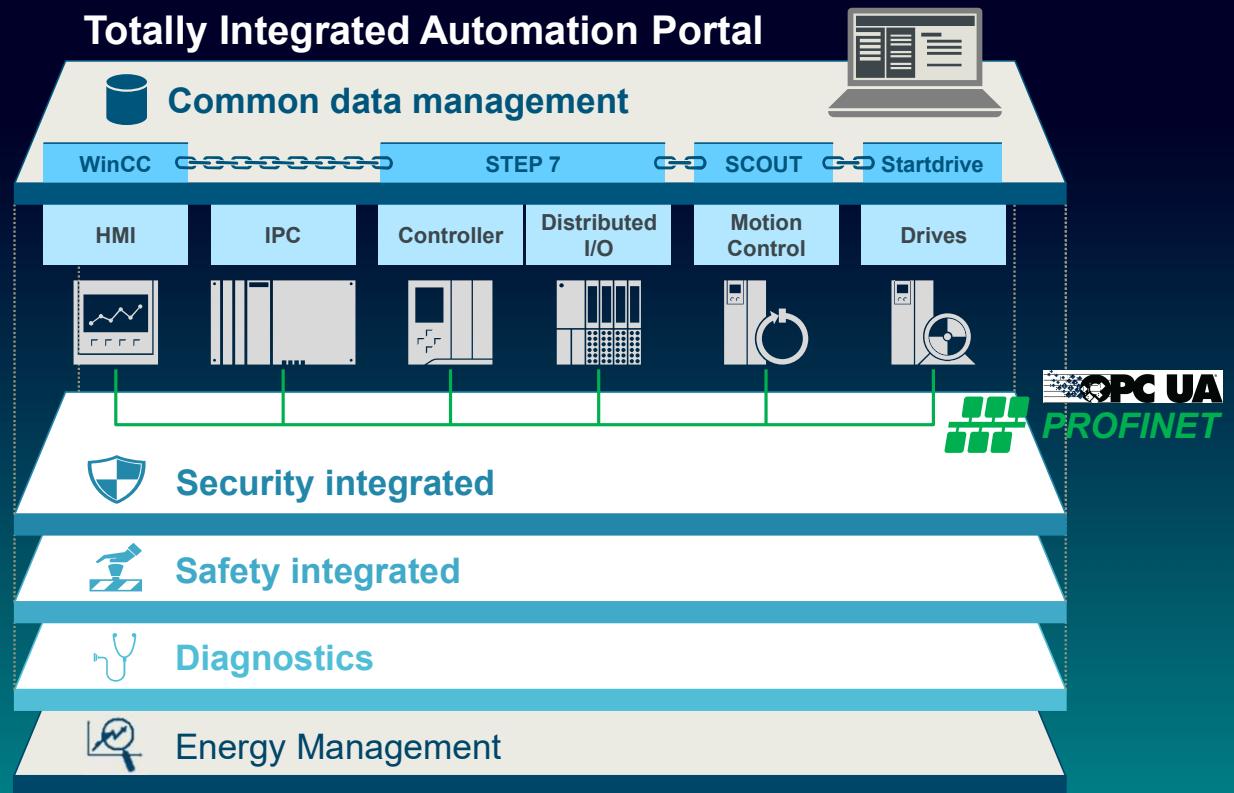
One common database



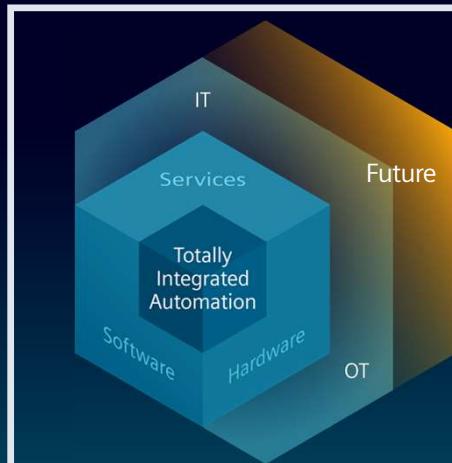
Consistent and unified operator concept



Common, central services



TIA Portal campaign in TIA – Integration³ Future-proof to enter new dimensions



Networked workflows wherever and whenever needed

- TIA¹: TIA Portal V17 and TIA Portal Cloud for different needs and maximum flexibility (subscription); Variety of different TIA Portal options, e.g. Multiuser addressing working in teams, PLCSIM Adv. and Test Suite for testing and simulation scenarios
- TIA²: TIA Use Cases for OT/IT Integration based on OPC UA and involving Security measures in connectivity / TIA Use Case Continuous Integration, a SW development workflow inspired by IT and app development
- TIA³: IT-like engineering

Benefits



- Addressing individualized requirements
- Efficient engineering by standardization
- Increase flexibility in your everyday work while maintaining total data consistency, regardless of the terminal used

Our offering

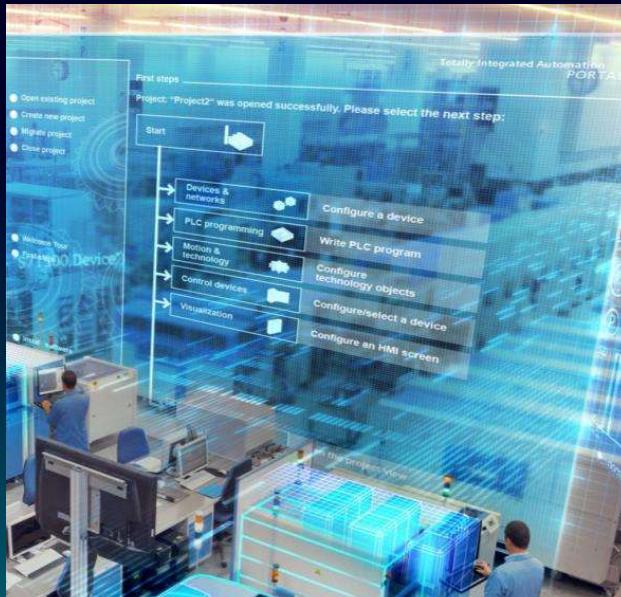
- TIA Portal and options
- TIA Portal Cloud incl. options
- Standardization
- TIA Use Case Continuous Integration
- TIA Use Case Data processing for OT-IT integration

TIA Portal

Even more than an engineering framework



Work open, virtual and networked!
Digital workflow with TIA Portal



Reduce your time to market!
Integrated engineering with TIA Portal



Increase your productivity!
Transparent operation with TIA Portal

Your gateway to automation in the Digital Enterprise

TIA Portal V17

Positioning of highlights in Gateway to automation storyline

TIA Portal V17

TIA Portal Test Suite

TIA Portal Version Control Interface (VCI)

TIA Portal Openness

TIA Add-Ins

TIA Portal Cloud

Security by Default / TLS + Wizard

Adv. Motion Control (S7-1518T/TF)

SIMATIC S7-1500R/H (incl. Safety)

Multiuser Engineering & UMAC

Additional editors (CEM & CFC)

WinCC Unified Unified + View of Things

SIMATIC OPC UA S7-1200 (Server + Comp. Specs)

OPC UA A&C / Online diagnosis / Companion Specs

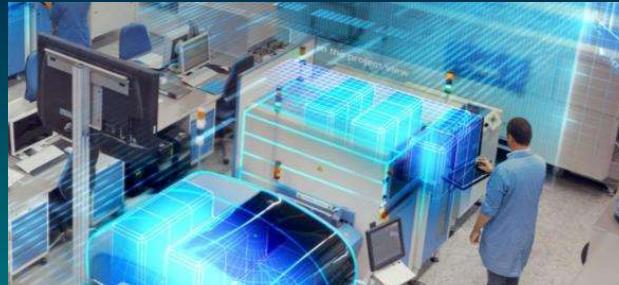
SIMATIC Energy Suite

Central User Management - UMC

ProDiag



Work open, virtual and networked!
Digital workflow with TIA Portal



Reduce your time to market!
Integrated engineering with TIA Portal



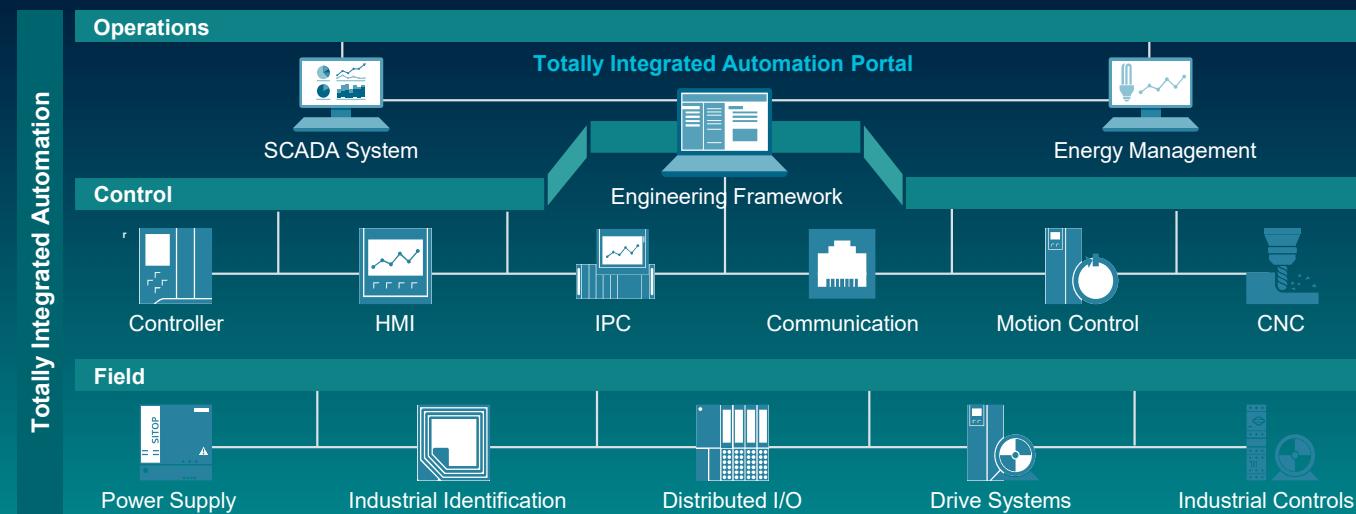
Increase your productivity!
Transparent operation with TIA Portal

The automation portfolio for the Digital Enterprise with efficient proven automation components



Totally Integrated Automation

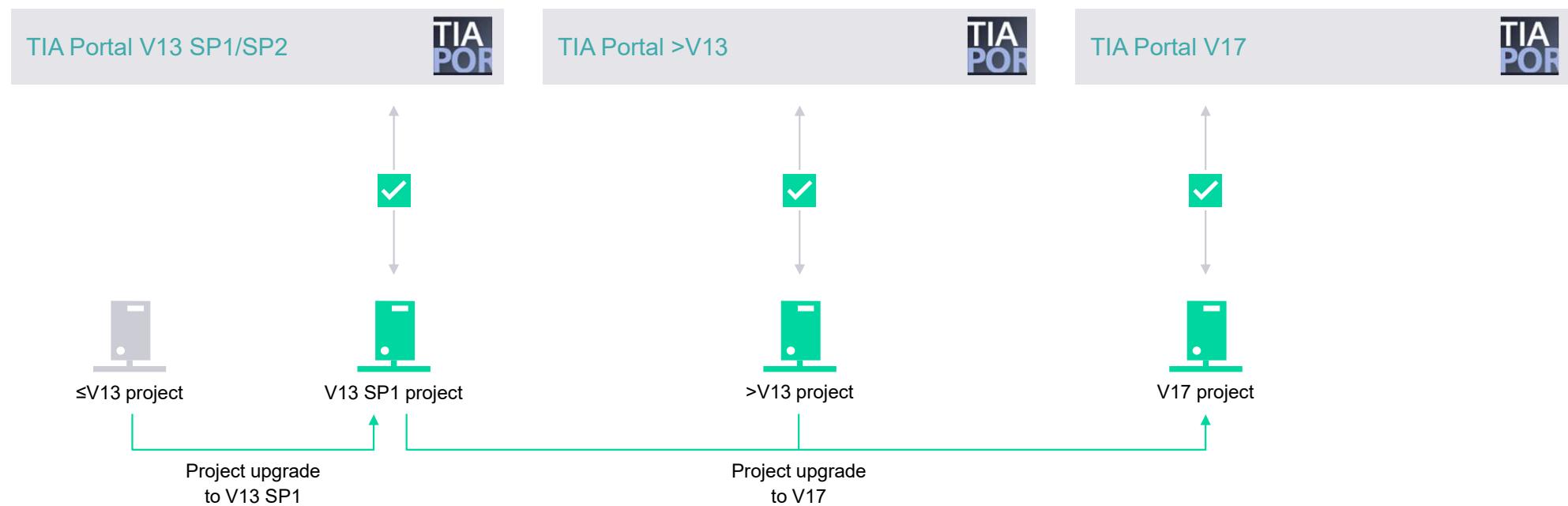
“TIA in the Digital Enterprise”



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System functions

Upgrading projects



Side-by-side installation of V13 SP1/SP2 up to V17 allows access to all project versions.
The V17 license can be used for all available versions from V11.

System functions

Spare parts compatibility S7-1500 and ET 200 CPUs – FW 2.9 with older TIA Portal versions

TIA Portal V12 to TIA Portal V16

V12/V13/V13 SP1 project with FW 1.0 to FW/1.8



Firmware V2.9

V14/V14 SP1 project with FW 2.0/2.1



Firmware V2.9

V15/V15.1 project with FW 2.5/FW 2.6



Firmware V2.9

V16 project with FW 2.8



Firmware V2.9

TIA Portal V17

V17 project with FW 2.9



Firmware V2.9

Full spare part functionality: Online support: ID 109744163



New functions can be used with TIA Portal V17 and firmware V2.9

Notifier for Industrial Edge

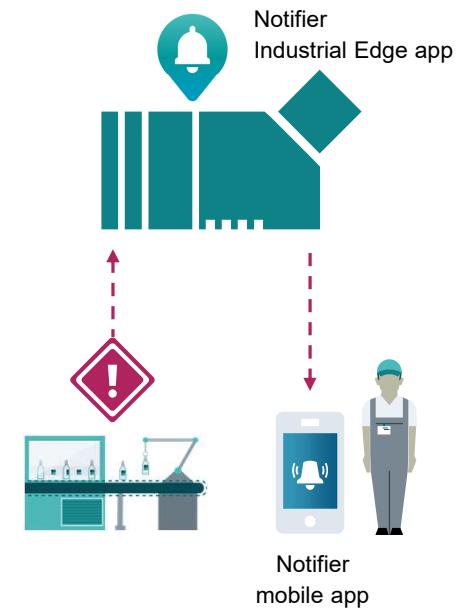


The Industrial Edge app **Notifier** allows you to reduce reaction times and downtimes by sending push notifications to your staff's pocket.

Notifier monitors your data and sends notifications based on rules easily configurable by you.

- Material shortage?
Notify your supply manager wherever he is on your site.
- Issues on your OEM machine?
Notify and send your service technicians even before your customer calls you.

Get an overview of all notifications via a clear and simple web interface and receive push notifications right on your smartphone.



SIEMENS Industry Online Support – SIOS

Dina fördelar med tillgänglig teknisk information 24/7

Användarvänligt med sökfunktioner & Quick guide

Industry Online Support Sweden

Contact | Help | Support Request

Intranet | Register | Log in

Site Explorer | ? in Online Support

Product Support Services | Forum | mySupport

FAQs

mySupport Cockpit

Application examples

Videos

Topic pages

Forum

OS app

Social Media

Kompetensutvecklade med utbildningsvideos

Information: Lokalt, Sverige:
www.siemens.se/teknisk-support
www.siemens.se/industritips

Globalt:
www.siemens.se/sios
www.siemens.se/support-request
www.siemens.com/sisc

Reducera projekteringstid med lösningar från applikationsexempel

mySupport

Trade fair and Demo

Komplett teknisk dokumentation, manualer och certifikat

SITRAIN – Sverige

www.siemens.se/sitrain



Möjligheter

- Med tre olika nivåer – SITRAIN open, SITRAIN access och SITRAIN utbildningar – erbjuder vi en kompetensutveckling för att öka dina kunskaper och erfarenheter som du behöver i din roll.

Industriautomation

- > Sitrain Access
- > Digital Enterprise
- > Simatic TIA Portal
- > Simatic S7 Classic
- > Simatic HMI
- > Simatic NET
- > Simatic PCS 7
- > Sinumerik
- > Simotion/Sinamics/övrig drivteknik
- > Lågspänningsapparater
- > Processinstrument
- > Webbutbildning (WBT)



Här finner du vårt schema för utbildningar inom automation och drivteknik.
[Se schemat här \(pdf\)](#)

SITRAIN open Knowledge base



SITRAIN access Digital learning platform



SITRAIN personal Classroom training



Digital Industries – Service & Support

Telefon: 0200-28 28 00

Vänligen välj:

1. Registrera ärende för teknisk support

Du kan även registrera ett ärende via webben,
www.siemens.se/support-request

2. Beställa servicetekniker

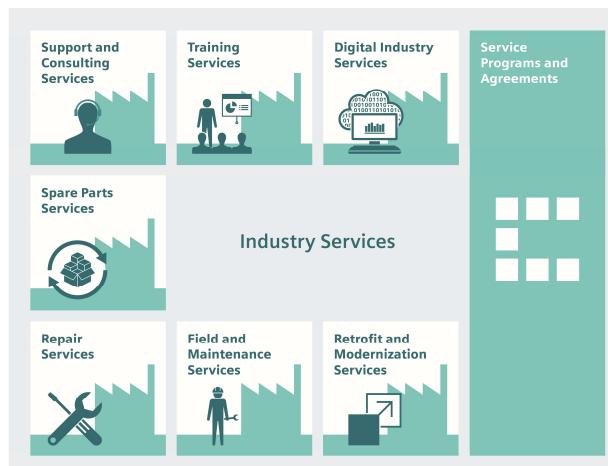
E-post: Industriservice.se@siemens.com

3. Reservdelar/reparationer/utbytesköp

E-post: Reservdelar.se@siemens.com

4. Garantier/returer/övriga reklamationer

E-post: Reklamationer.se@siemens.com



Övriga alternativ:

Är du utanför Sverige, ring:

+46 8 728 12 72

För att nå service utanför kontorstid

0771-41 41 51

Global teknisk support, utanför kontorstid

+49 911 895 7222

Industrial Security Concept from Siemens – Defense in Depth based on IEC 62443

Defense in depth

Security threats
demand action



Plant Security

- Physical access protection
- Processes and guidelines
- Holistic security monitoring

Network Security

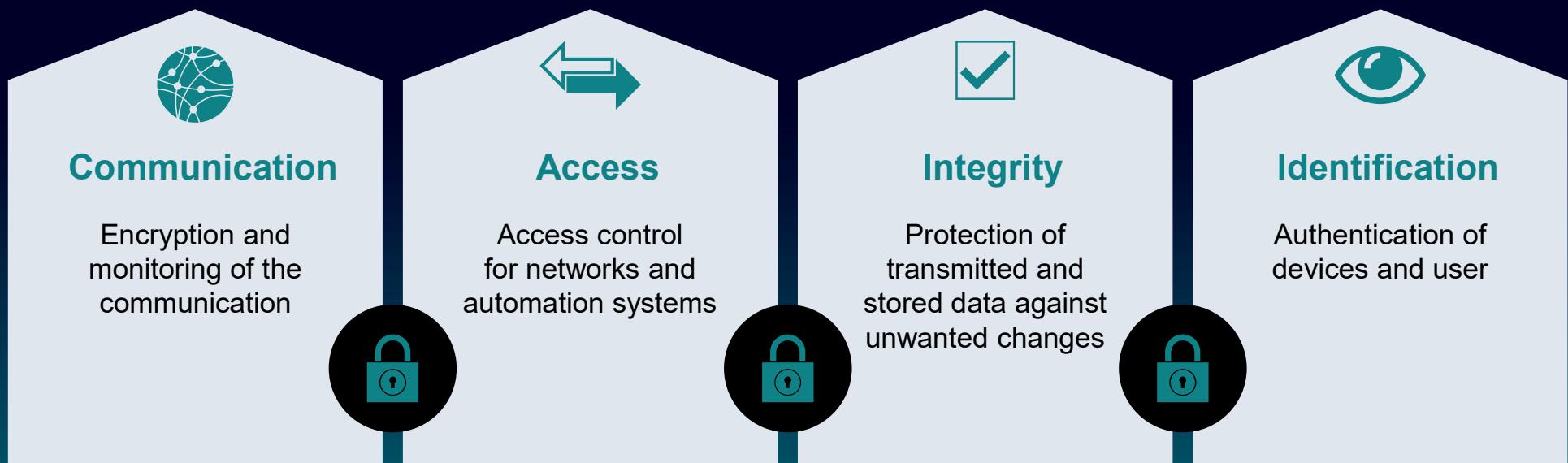
- Cell protection and perimeter network
- Firewalls and VPN

System Integrity

- System hardening
- Patch management
- Detection of attacks
- Authentication and access protection

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Industrial Security – Protecting Productivity – Risk mitigation for secure operation in a digital enterprise



Basis for a continuous, reliable operation of production plants

- High Availability: Avoiding disturbances caused by attacks
- Integrity: Reduction of malfunctions, production errors and downtimes
- Confidentiality: Protection of confidential data, information and intellectual property

Secured

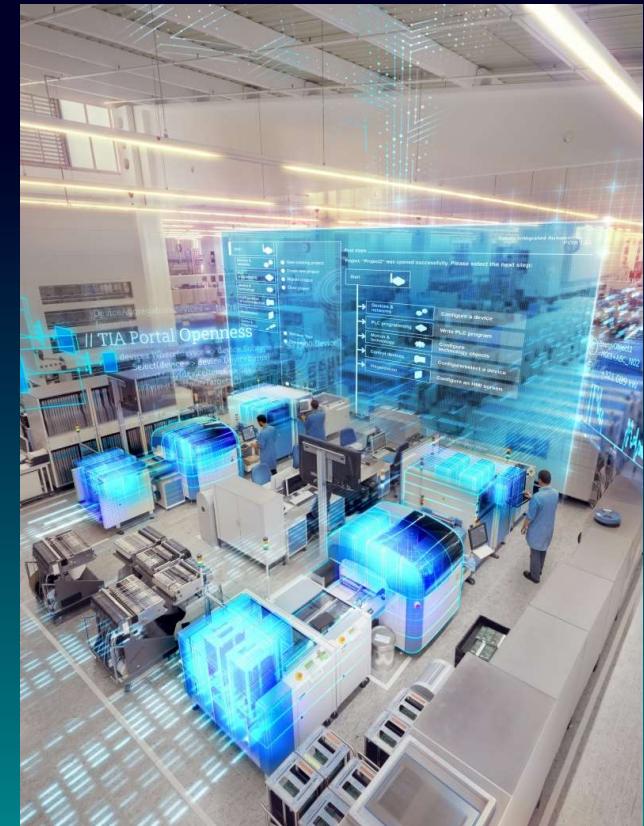


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TIA Portal V17

Security with TIA Portal

Feature / Function	Benefit
Secure communication: <ul style="list-style-type: none">• TLS-based protection of communication to PG/HMI (TLS V1.3)• Introduction of individual security keys and certificates• Security Wizard	<ul style="list-style-type: none">• Integration of the latest security mechanisms• Increased security thanks to management and transfer of own certificates• Easy configuration of security settings through user-friendly wizard
Extended rights management in TIA Portal <ul style="list-style-type: none">• User Management & Access Control (UMAC)• Central User Management (UMC)	<ul style="list-style-type: none">• Extended definitions of user rights in engineering• Support of Single Sign-on and SIMATIC Logon protocols
Secure communication with OPC UA <ul style="list-style-type: none">• Certificate management with GDS	<ul style="list-style-type: none">• Increased security thanks to access certificate management and transfer



Examples

Digital technologies empower a more sustainable industry ...



Enable more efficient products



Use less energy



Optimize energy consumption



Meet environmental compliance laws

[Computational Fluid Dynamics](#) (CFD) and other simulation solutions ([Simcenter](#)) can help design for efficiency and sustainability.

- Evaluate the full design space and eliminate poorly performing designs prior to manufacturing a prototype
- Reduce [energy costs](#)
- Achieve [lower sound levels](#) and thus meet environmental noise regulations

Our smart and integrated drive train products [SIMOTICS electric motors](#) and [SINAMICS frequency converters](#) support our customers to reduce energy consumption by using products according to the latest efficiency classes.

- Up to 3 times higher efficiency degree achievable by seamless integration of our drives and motors
- Up to 40% energy savings
- Reduction of energy costs

With our [SIMATIC Energy Manager](#) and [SIMATIC Energy Suite](#) we help customers to visualize energy flows and consumption, evaluate efficiency measures, and compare energy efficiency across plants and locations.

- Reduction of energy costs
- Increase of energy efficiency of more than 12%
- 10% reduction of CO₂ emissions

Our software [Teamcenter](#) helps our customers to phase-out non-sustainable and restricted substances from products, and design-in new and innovative "green" ones.

- Comply with regulations in different regions
- Development of sustainable products
- Protection of humans and environment from harmful effects of hazardous substances

... for various verticals



Water portfolio

Automation and software apps like the [Siemens Water \(SIWA\)](#) applications as well as our Digital Twin for brownfield and greenfield plants help our customers conserve and manage the valuable resource water.

- Optimized energy efficiency
- Prevention of water loss
- Reduction of contamination of water bodies
- Higher security of water supply and reliable waste water disposal



Next-generation batteries

We support to develop resource efficient battery products and production sites.

- Battery recipe and factory blueprint development with [Simcenter](#) & [Plant Simulation](#)
- Reduction of scrap rate with optimization of battery processes by [TIA](#), [Industrial Edge](#) and machine digital twin
- Recovering valuable raw materials with automated [battery recycling](#) processes



Electric vehicles

We work with startups and enterprises across the globe to develop and build low-emission vehicles. We help build cleaner urban environment and shared mobility.

- Develop composite-based [electric vehicles](#)
- Build [energy efficient mobility systems](#) while protecting air quality
- Optimize component design and vehicle energy management of electric buses
- Produce [intelligent transmissions](#) for greener city buses



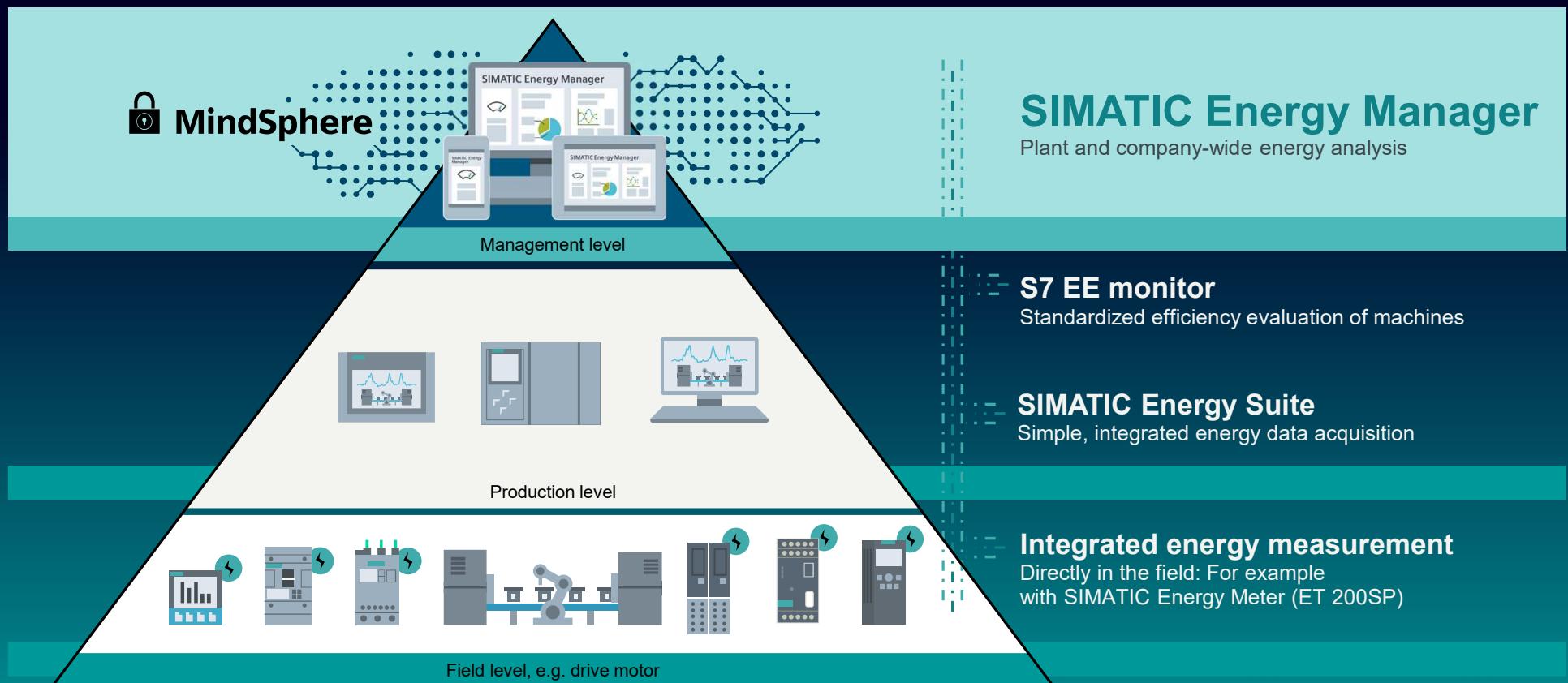
Farm-to-Fork Transparency

We use a unique combination of IoT and blockchain to [trace F&B](#) from Farm-to-Fork.

- Capture material movements, transformations and resource utilization into a trusted traceability blockchain ledger
- Connect the data from each product's lifecycle to its packaging and allow consumers to validate claims ("sustainable", "rainforest friendly", "local", etc.)
- Optimize overall supply chain efficiency



SIMATIC Energy Management – transparency and efficiency from the machine through to the entire company



Att kommunicera mellan olika utrustningar är en utmaning för industrin.

Maskiner måste...



... kunna integreras snabbare i anläggningen.



... kommunicera med fler och fler system.



... ha ett gränssnitt som är flexibelt och alltid vara "up to date".



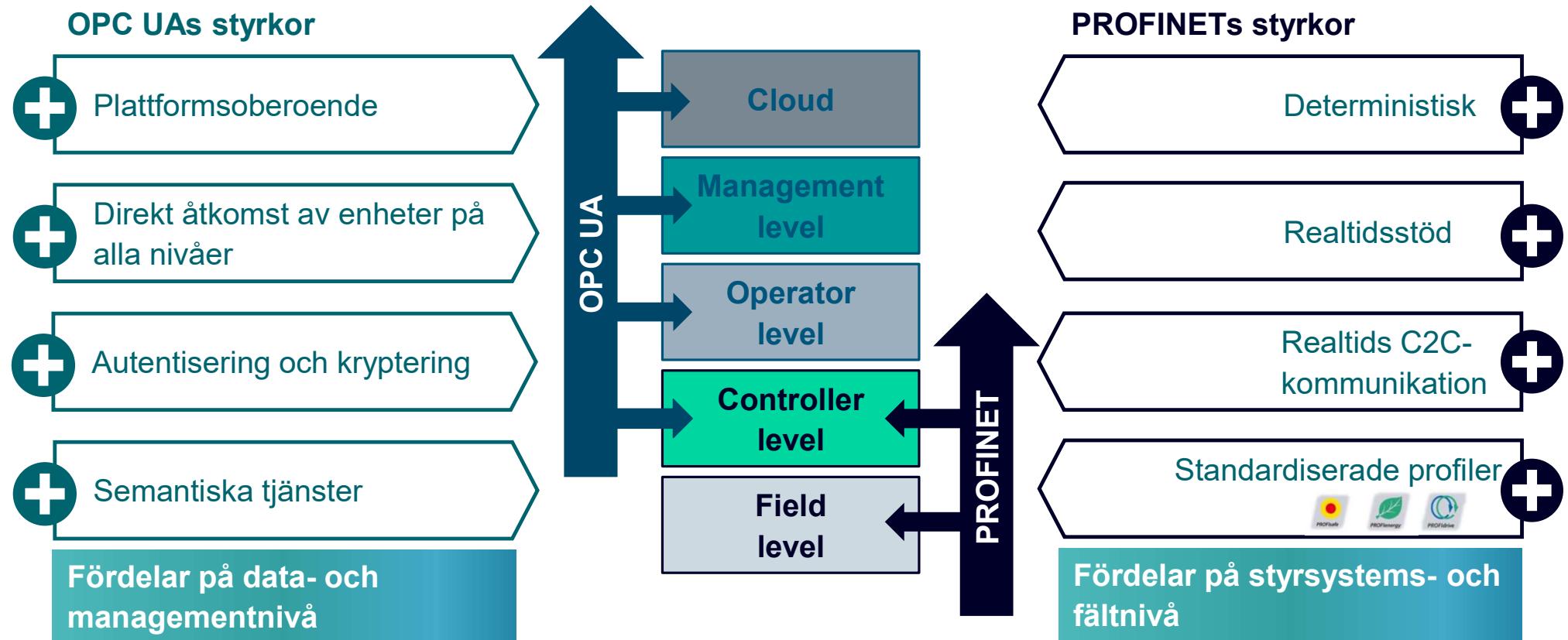
Vad händer om
kommunikationsgränssnittet ändras
på andra enheter i anläggningen?

Hur ansluter jag till en maskin på ett
säkert, övervakat och
kostnadseffektivt sätt?

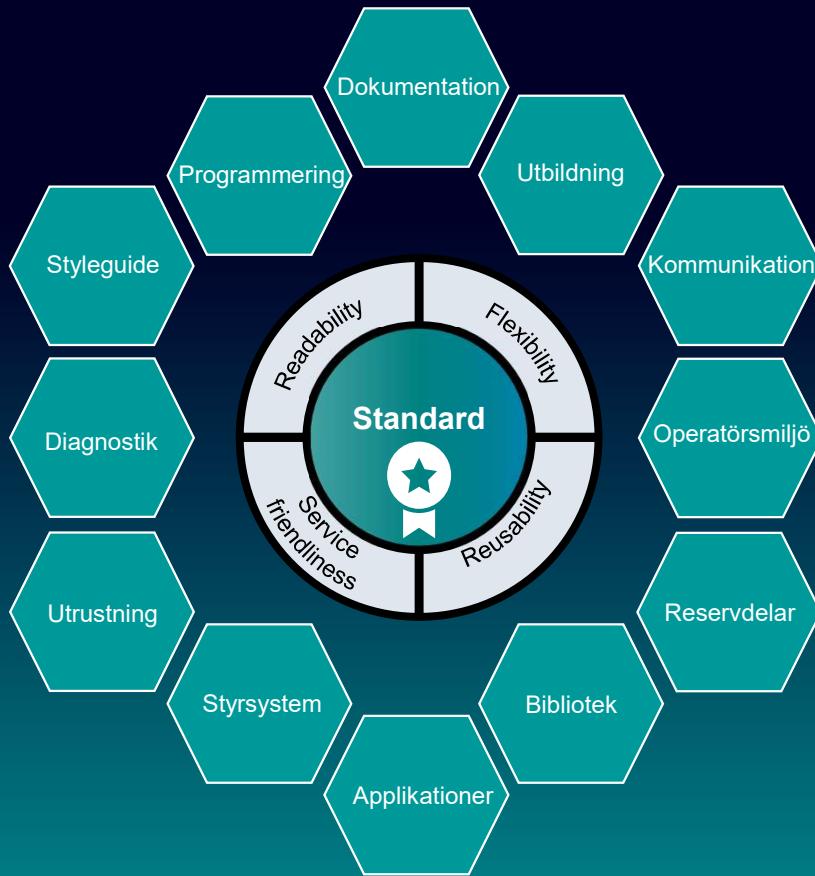
Hur kommer jag åt all utrustning
snabbt och enkelt?

Hur kommunicerar jag mellan
maskiner från olika tillverkare?

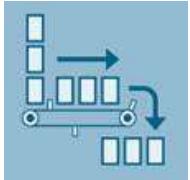
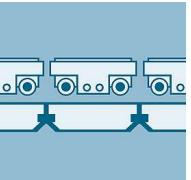
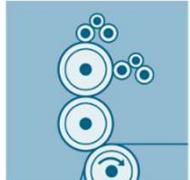
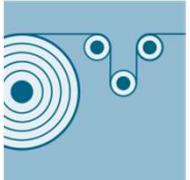
OPC UA i kombination med PROFINET perfekt samarbete på ett gemensamt nätverk



Standardisering, en förutsättning för långsiktig och hållbar produktion



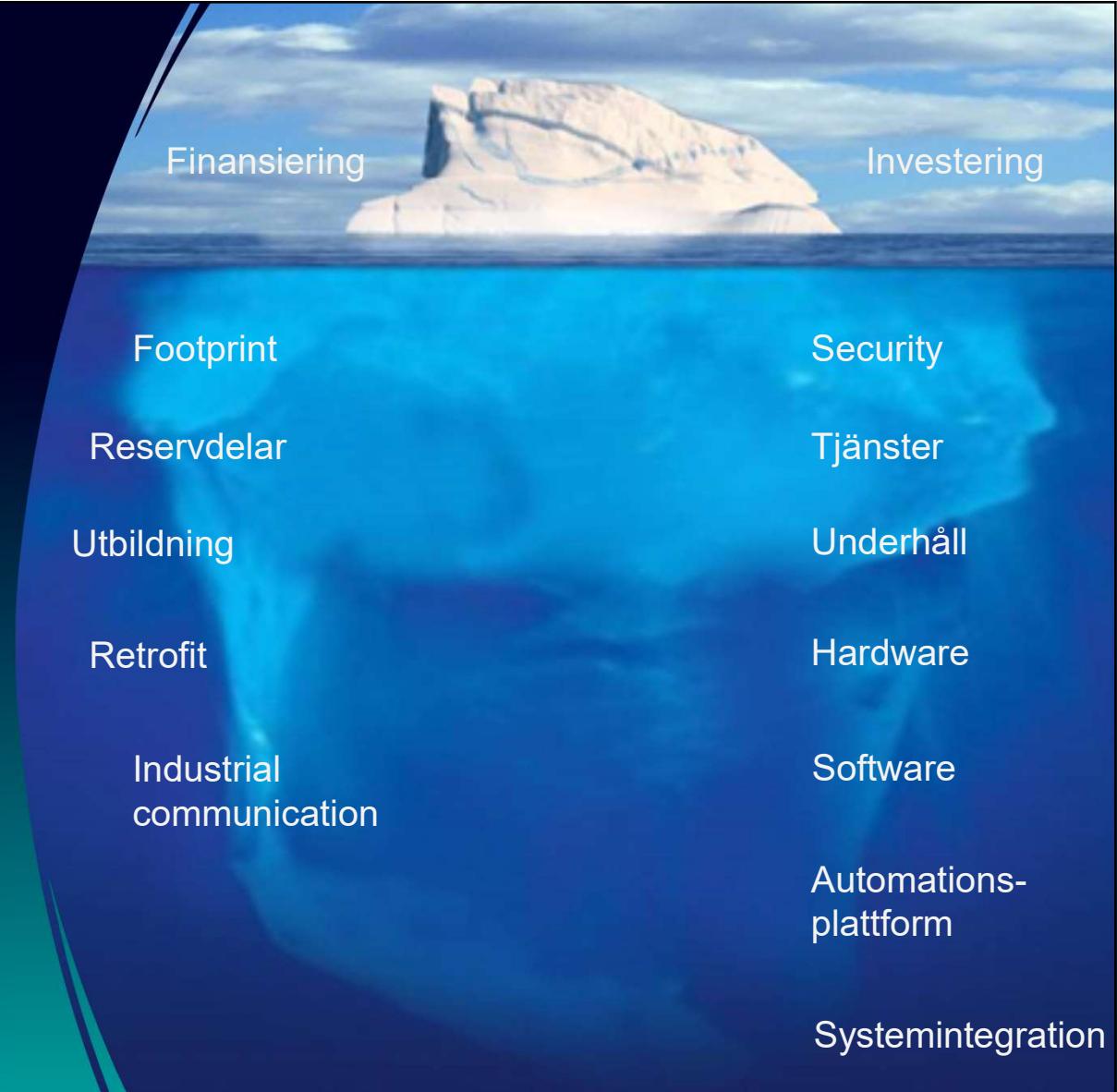
Modular Application Creator and the available equipment modules in version V2.0

Weihenstephan	OMAC ¹	Intelligent Belt	MCS Creator	Printing Standard	Converting Toolbox
<p>The Weihenstephan standards supports machine state and program management and also defines tags for data evaluation and a universal communication interface</p> <p>✓</p> 	<p>Software-library for OMAC-compliant operating mode and state management</p> <p>✓</p> 	<p>The Intelligent Belt application (multi belt control) supports complex grouping processes in packaging machines</p> <p>✓</p> 	<p>This module configures the Multi-Carrier-System LRailCtrl application for SIMATIC S7-1500T controllers</p> <p>✓</p> 	<p>The Print Standard application configures complex printing machines</p> <p>✓</p> 	<p>The converting toolbox configures material processing machines</p> <p>✓</p> 

¹ Organization for Machine Automation and Control

Ägandeskap över tid

Standardisering



Tänk helhet vid nyinvestering, hur kommer jag framåt.



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