

| Building X

AI-enabled applications, platform
and connectivity for future-proof buildings



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Challenge

People spend up to

90%

of their time in buildings.

Source: Fast Company



Trends and challenges in buildings

People



30%

of office space will be consumed as flexible space by 2030

62%

see improving the health and well-being of occupants as important strategic objective

Business



80%

of total lifecycle cost of a building occur in the operation phase

74%

of building owners believe building design and management help attract talent

Environment



40%

of energy worldwide is consumed by buildings

75%

of commercial buildings are energy inefficient

Digitalization will be the primary enabler
to handle the challenges in buildings

75%

of companies see digitization
as a key driver of change
processes in buildings¹

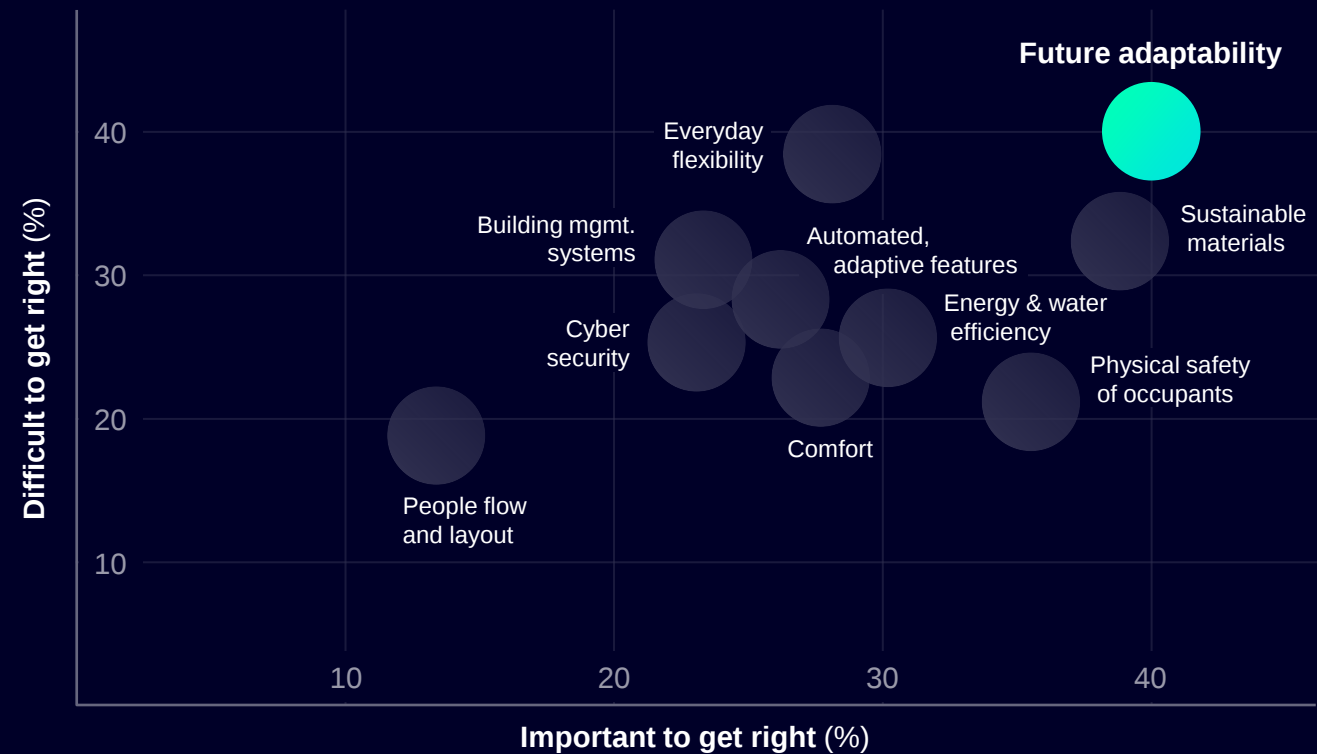
¹ ZIA-CREM-Study 2020



Is your building future proof?

Future adaptability

is both the **most important** and **most difficult** area to get right in designing a new building or facility



Future adaptability is both the most important and most difficult area to get right in designing a new building or facility. Respondents chose up to three factors to rate as the most important, and then from the same list, another three as the most difficult. Asked only of owners and/or operators of infrastructure in non-energy sectors (n=231).

Source: Siemens thought leadership report – A New Space Race (2021)



Building X

...combines the physical and digital worlds in a single source of truth...

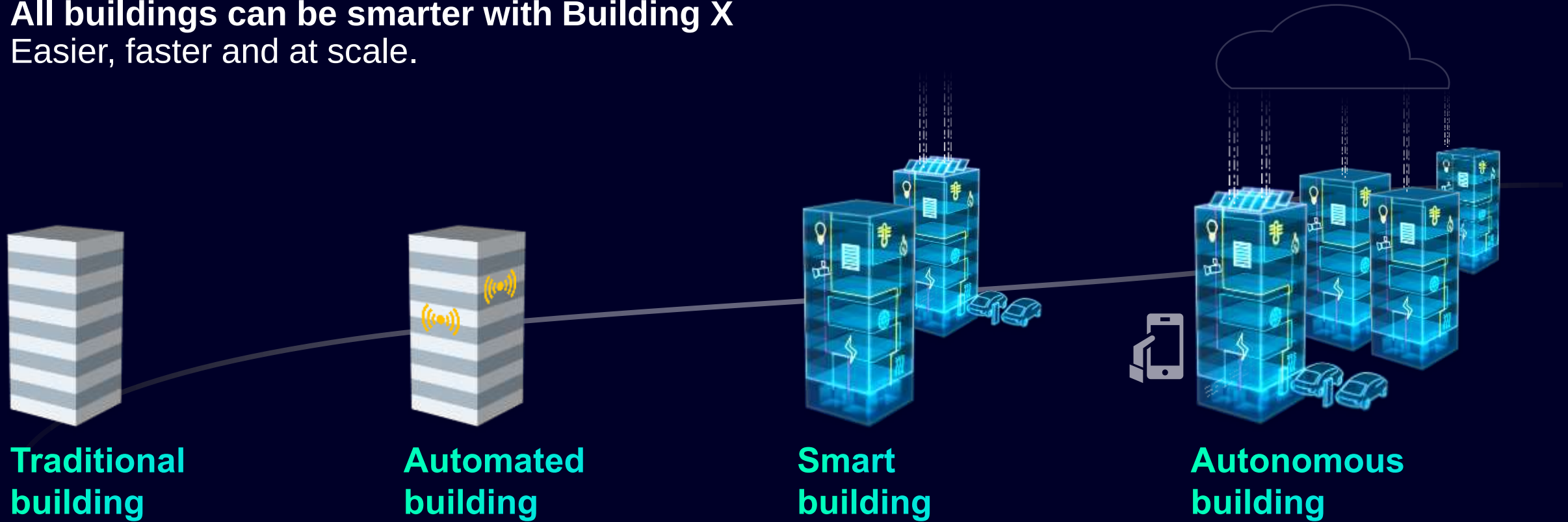
...to accelerate **Sustainability, Experience and Performance in buildings...**

...with AI-enabled applications, open platform, and connectivity solutions.



All buildings can be smarter with Building X

Easier, faster and at scale.



From ...

- Reactive on-site service & connected remote
- On-site solutions
- Complex integration process
- Siloed domain control

To ...

- Predictive & prescriptive
- AI-enabled remote operations
- Simple & easy integration
- as a Service



*How do I meet
our **emission
targets?***

Sustainability Manager



*How can I improve
operational efficiency
and reduce total costs?*

Building Operations/Technical FM



*How can I create a **secure
environment for
employees?***

Security Manager



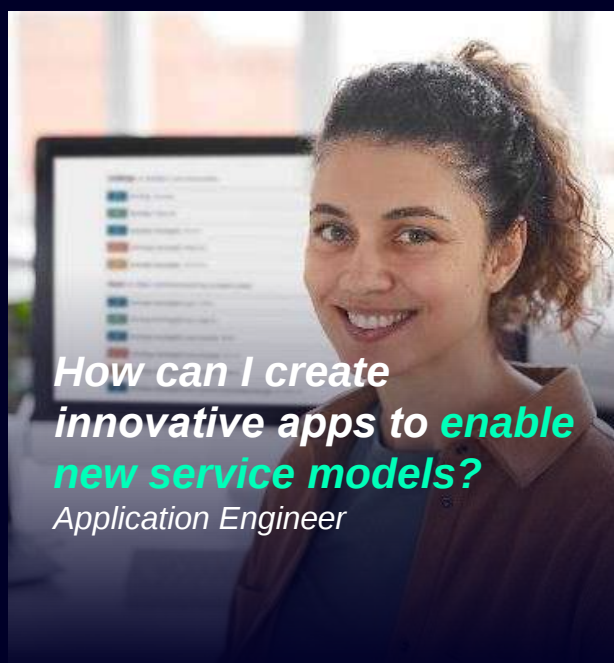
*How can I keep our
IT systems secure
and **future-proof?***

IT Manager



*How can I deliver
our **services
digitally?***

(Digital) Service Provider



*How can I create
innovative apps to **enable
new service models?***

Application Engineer



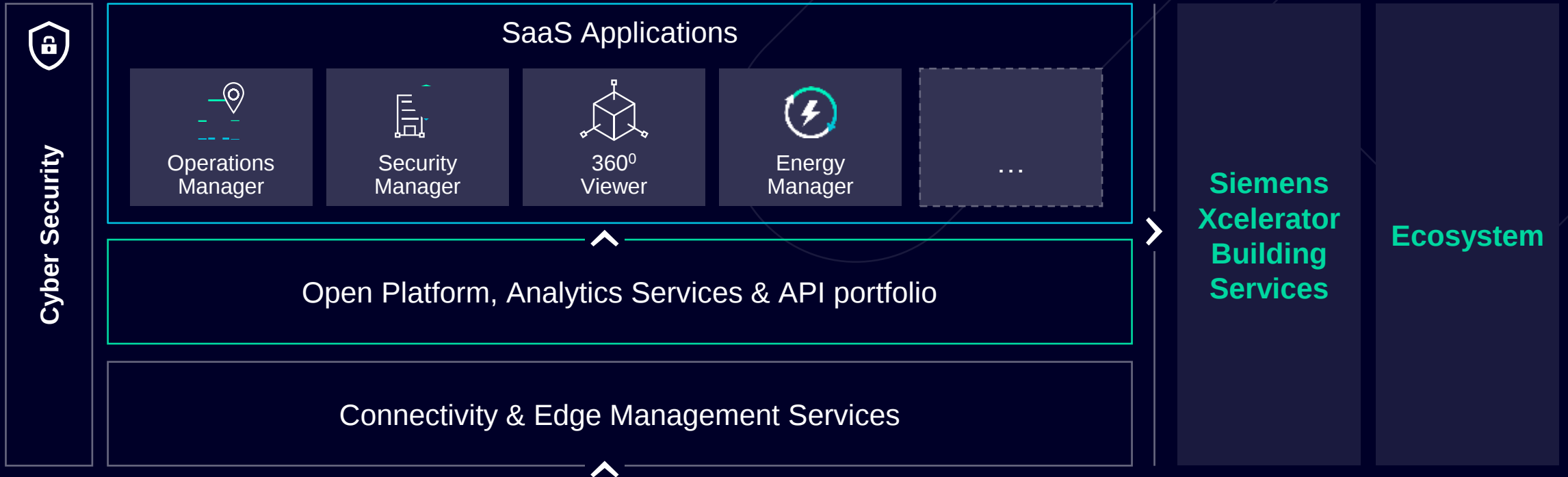
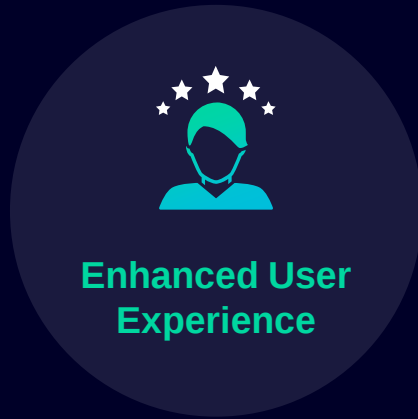
*How do I **modernize
spaces** and fix **issues
with aging equipment?***

Asset/Portfolio Manager



*How can I accelerate
the **digital transformation**
of our organization?*

CEO



Realizing building operations twin with Building X

Digitize

your data in one platform providing seamless user experience and enabling 3rd party integrations and ecosystem through open APIs.

Connect

your buildings to the cloud securely, keep them up-to-date with a flexible and extendable solution for future IoT needs.



Optimize

your work with a unifying software suite that provides an evolving set of applications for smart buildings to achieve your business goals.

Explore

your data in a harmonized and enriched way with powerful analytics solutions, gain new insights, identify efficiency and business opportunities, and make smart data-driven decisions.

Connect your buildings securely to unlock the power of data

- Connect all building devices and systems securely
- Gain more business insights for your assets
- Vendor agnostic connectivity solutions
- Comprehensive central device and fleet management for all connected devices



Building X
connectivity

Connect your buildings securely to unlock the power of data

Our flexible and scalable connectivity solutions bring your assets securely into the cloud and evolve with your needs.



Robust Edge Gateways



Flexible Software Gateways



Edge Management Services



Building X connectivity

Digitize your building and break the data silos

- Your single source of building data based on digital twin
- Efficient and assisted domain-specific onboarding workflows
- Unified account and user management for all Building X services
- Unique user experience with intuitive workflows
- Wide range of APIs to integrate data into your own cloud apps & services
- An open, scalable & modular platform



Building X
platform and analytic services

Digitize your building and break the data silos

Our powerful platform is the backbone for all Building X applications and comprehensive services for the digitization of buildings and assets.



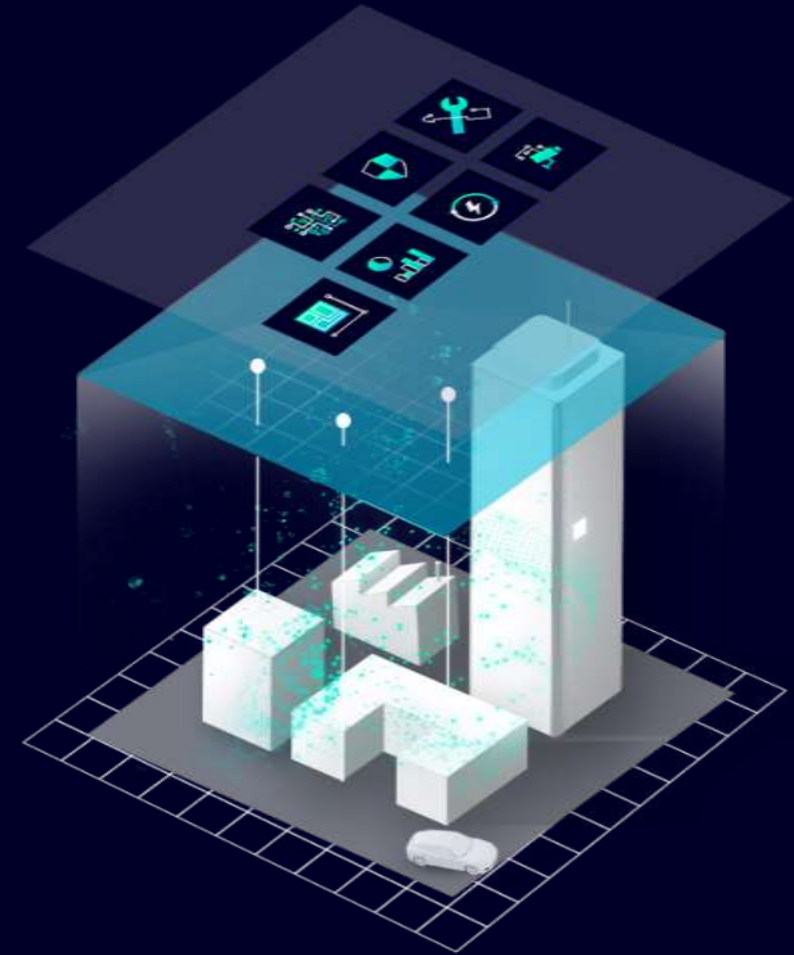
**Unified
Account Management**



**Common
Domain Model**



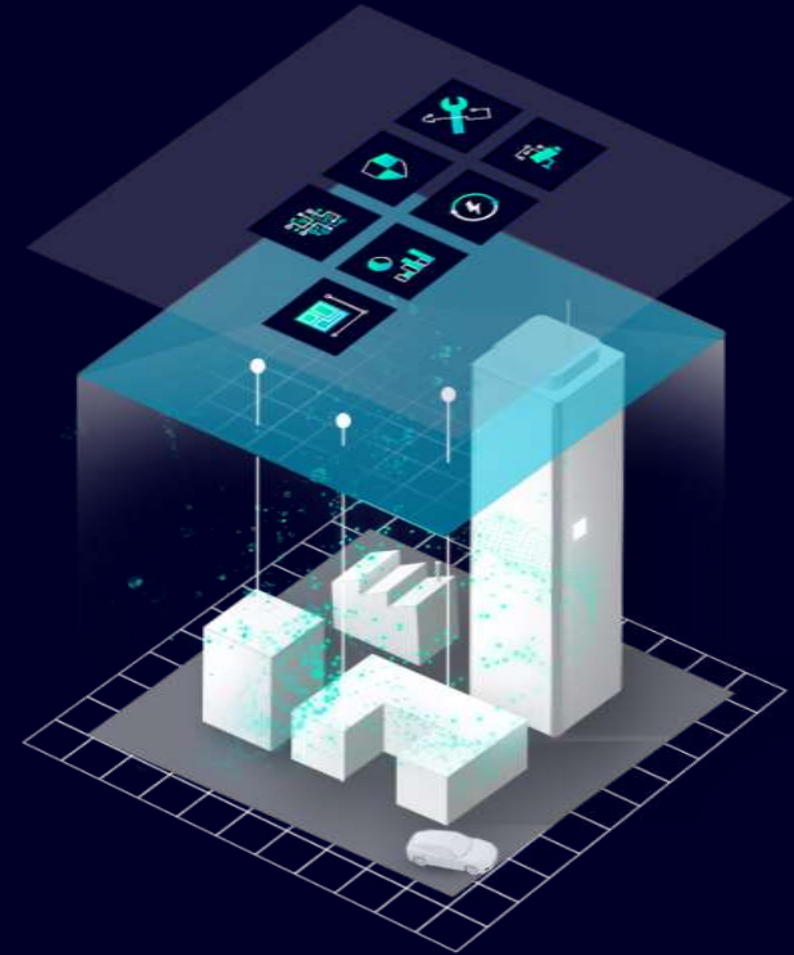
API Portfolio



Building X
platform and analytic services

Explore your data to gain new insights and business opportunities

- Easy to use analytics services such as forecasting
- More accurate and realistic decision making thanks to data quality
- Easy to interpret & modify rule-based environment for essential analytics
- Advanced machine-learning environment for handling complex problems
- The next-level data exploration that matches a user's specific needs



Building X
platform and analytic services

Explore your data to gain new insights and business opportunities



Off-the-shelf
Analytics Services



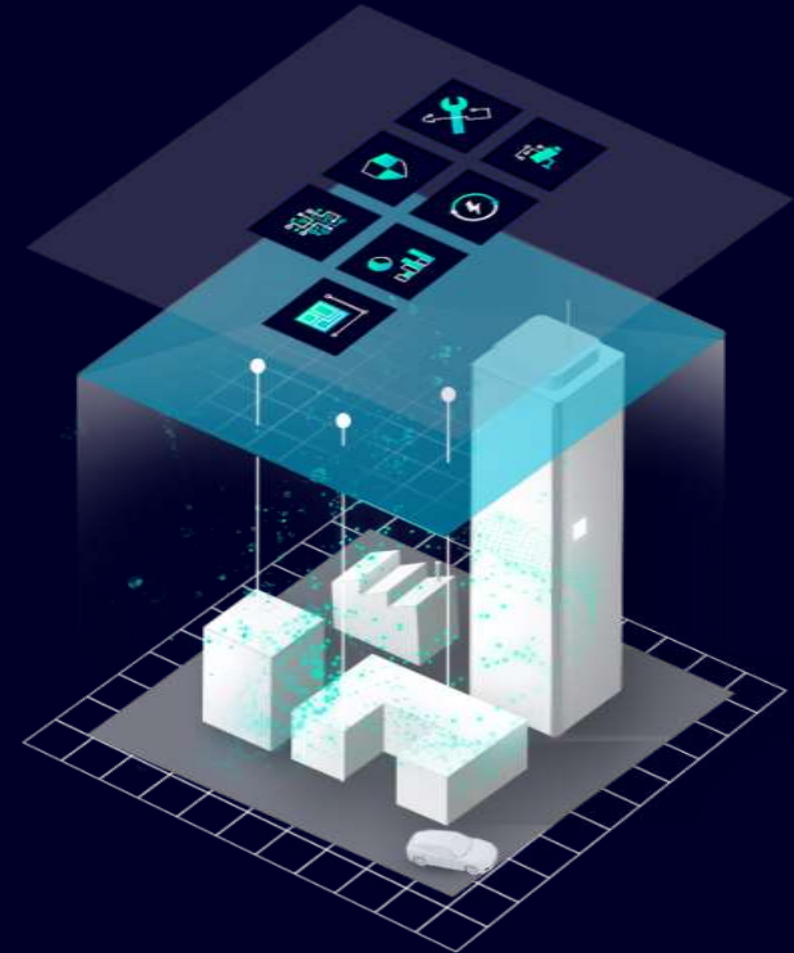
Advanced Analytics
Environments



Visualization and
Reporting Services



Data Quality*



Building X
platform and analytic services

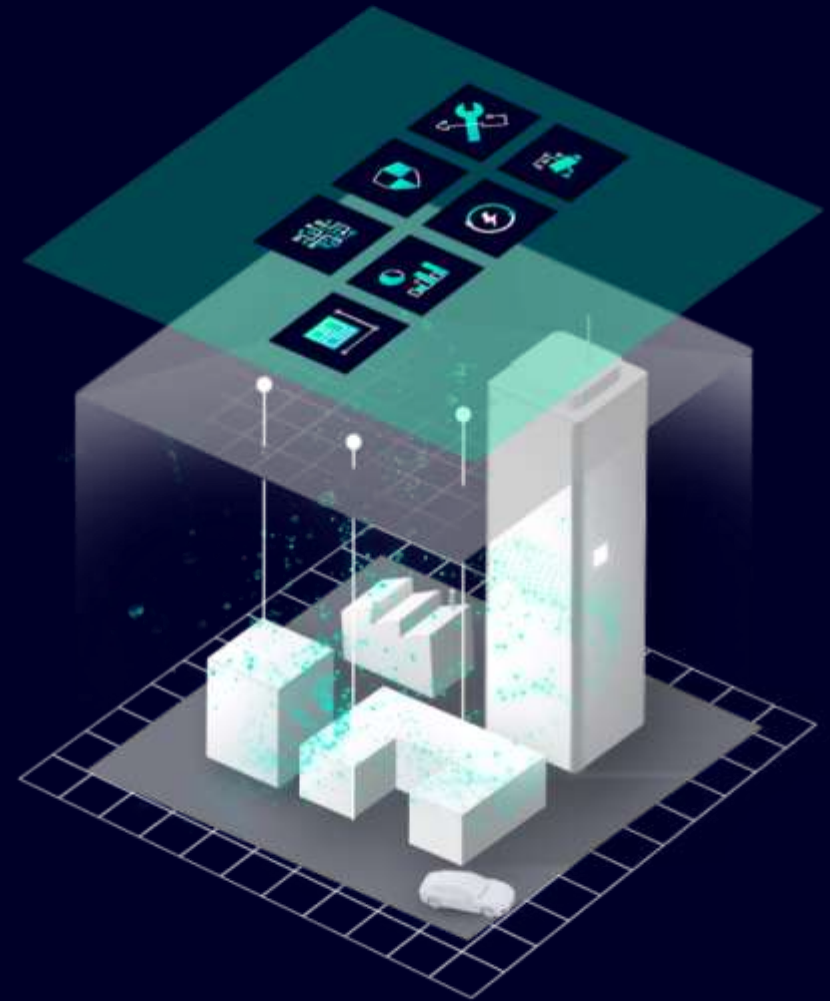
Start benefiting from **AI-based analytics***

- Forecast with ease your buildings' energy consumption, CO² emissions, and costs based on historical data
- Identify anomalies to prevent failures and to clearly spot optimization potentials
- Clear your view with high quality data for trustworthy insights



Optimize your daily work with Building X applications

- Drive tangible business outcomes
- Faster implementation of business solutions
- Enable data-driven decisions by leveraging built-in analytic services
- Increase transparency across various building systems
- Break the data silos that ensure interoperability



Building X
applications

Optimize your daily work with Building X applications

Drive tangible business outcomes across your entire building portfolio.



Energy Manager



Operations Manager



Security Manager



360°Viewer



Fire Manager*



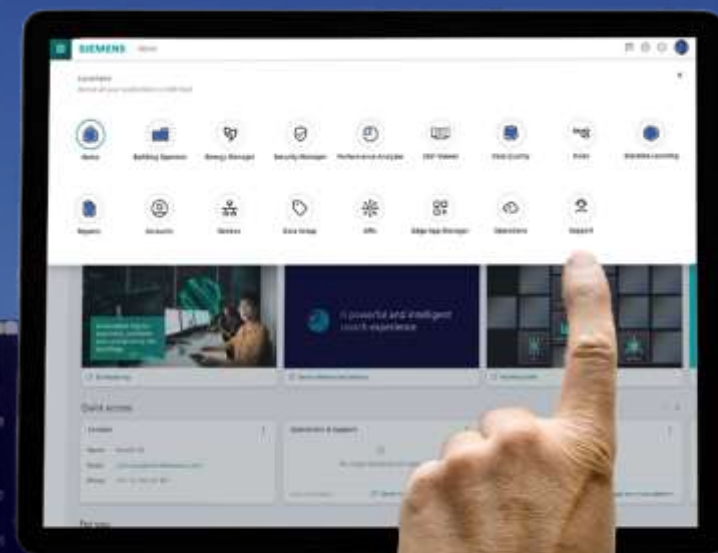
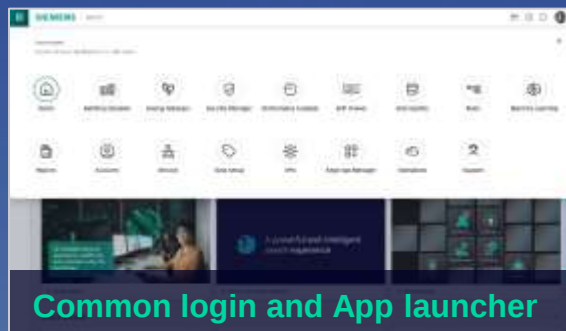
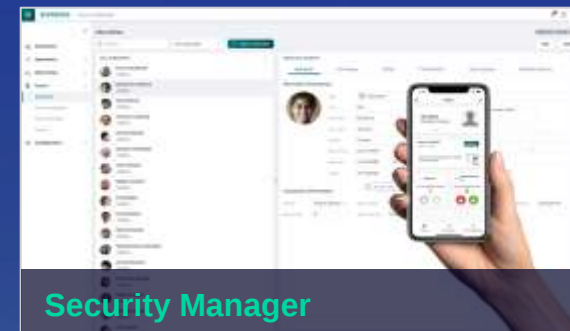
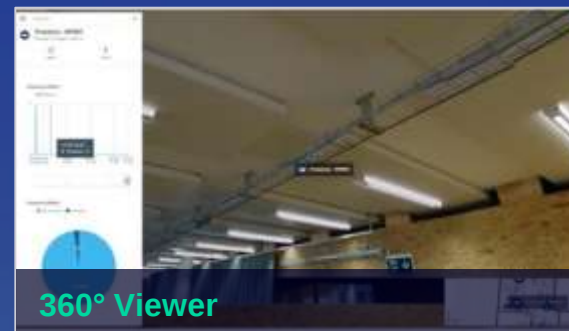
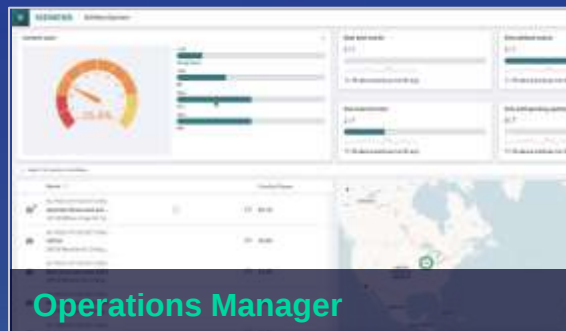
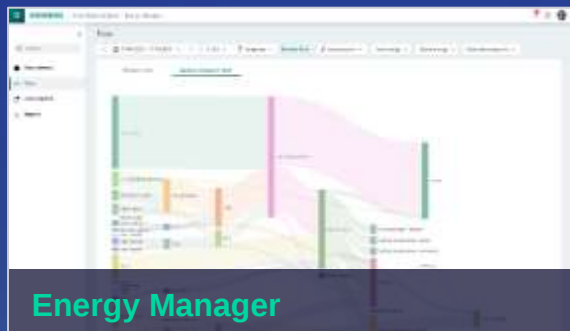
Performance Analyzer*



Building X
applications

Building X

The single-entry point for all building data



What is in for you?

Accelerate your digital transformation and
achieve your goals with Building X Applications



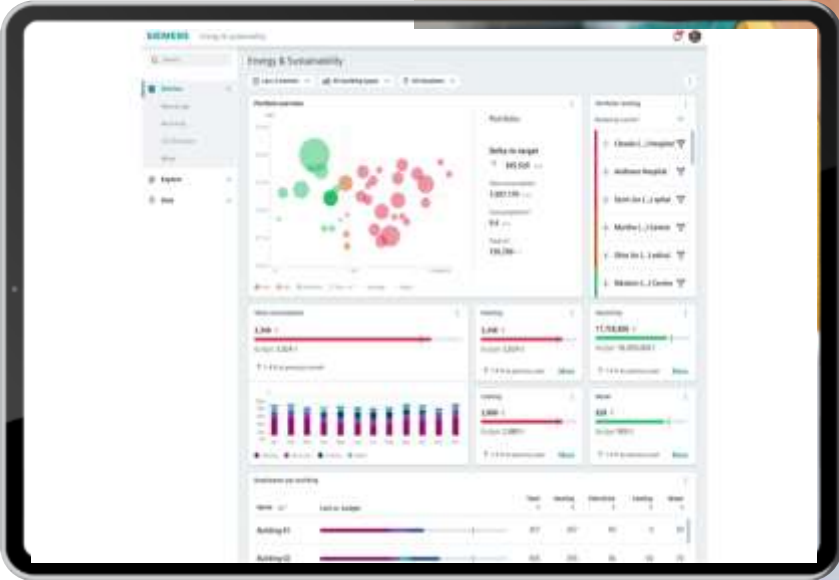
Jess Sustainability Manager

Executing on sustainability strategy





I love that Building X allows me to keep my finger on the pulse and demonstrate our progress at any given time.



Good-bye manual data consolidation
with all data in a single, reliable source.

Spot inefficiencies faster
thanks to up-to-date data, intuitive reports
and crystal-clear dashboards.

Precise data for sound reporting
that demonstrates the impact of my work
to my stakeholders.

My business goals within reach
with AI-based analytics that improve our
energy and sustainability efficiency.

Sustainability Manager

Make data-driven decisions by using accurate sustainability data

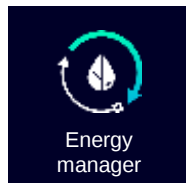
Access **consumption** and **CO₂ emission data** in near real-time for your **entire portfolio** in a consolidated view.

Easily **compare energy consumption** and related **CO₂** and **water** usage between **buildings**, and over time.

Leverage **AI-based forecasting and notifications** to be alerted to **potential budget overruns** and take action.

Use the power of data to **trigger** required optimization activities with operational teams and contractors.

Spot outliers, unusual behavior and **track consumption patterns** thanks to a **heatmap** on the site level dashboard which helps identify inefficiencies.

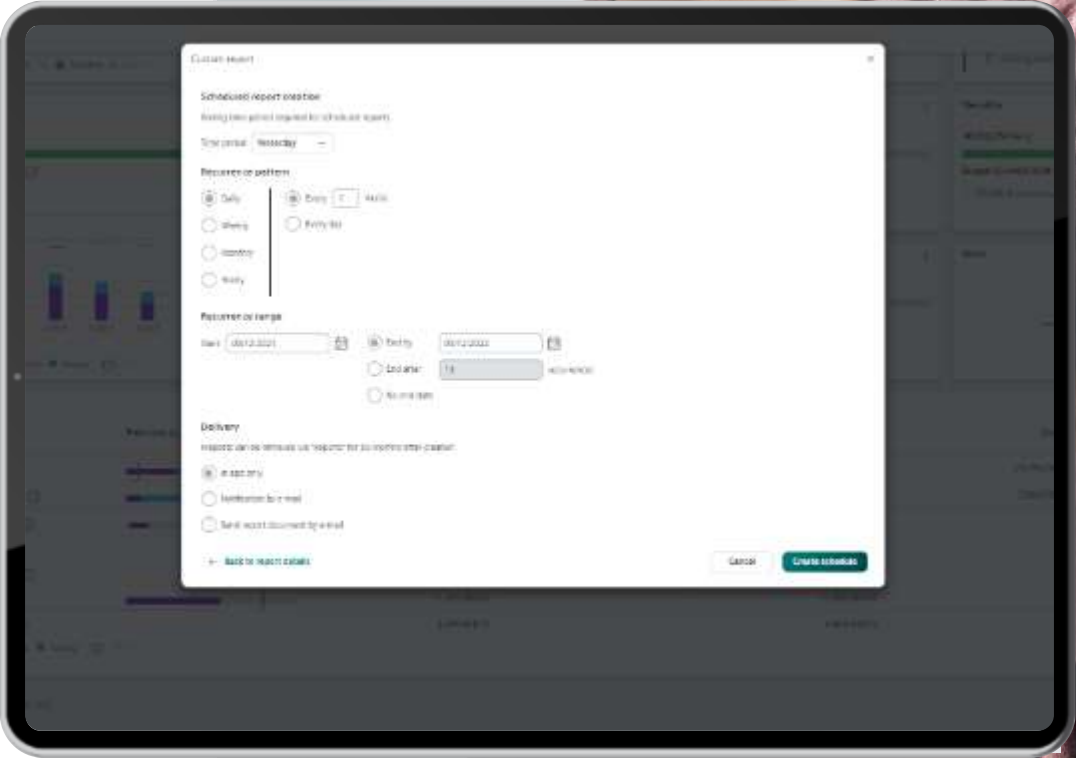


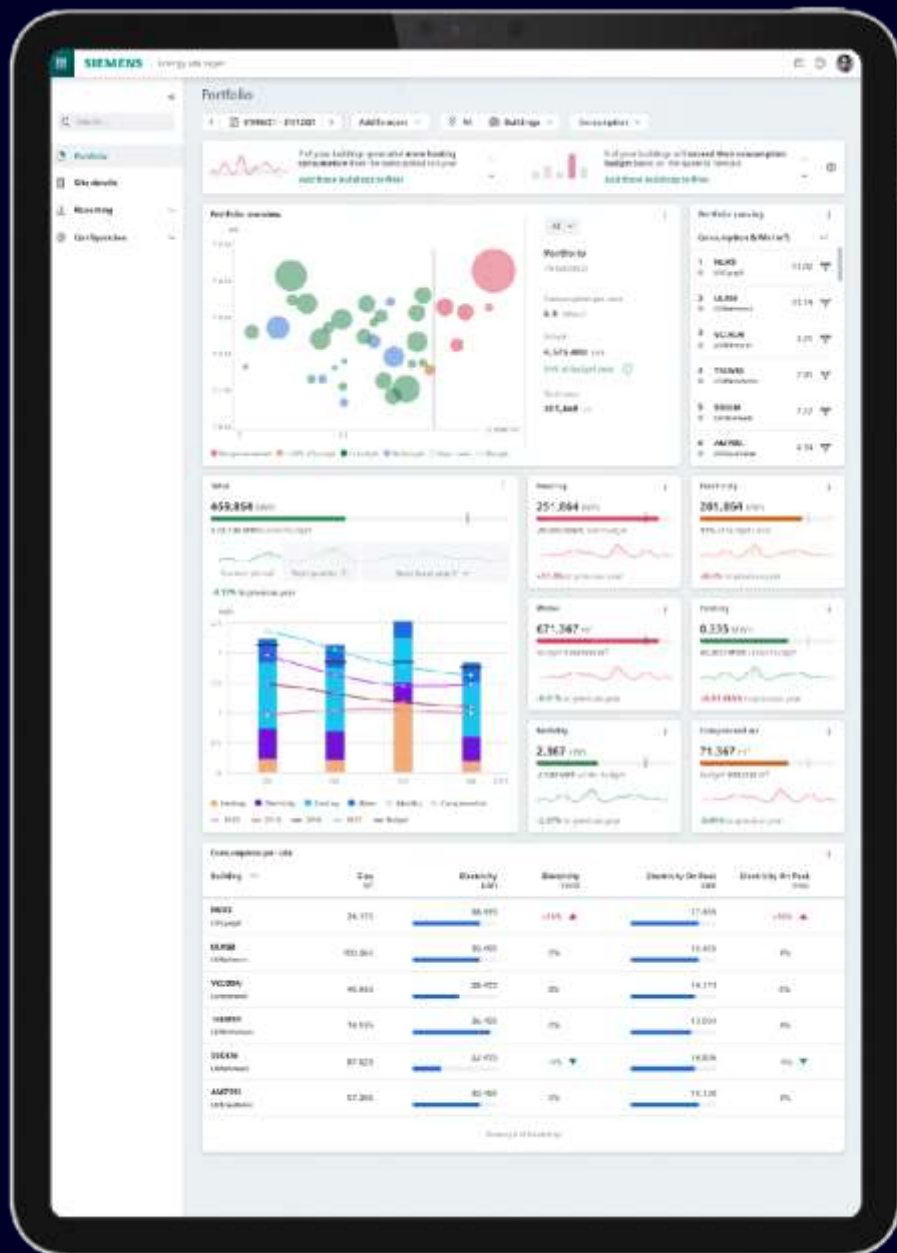
Compile sustainability achievement reports and presentations with reduced time and effort

Get your environmental **performance data** **whenever and wherever** you need in the most **convenient format**.

Automate your reports to keep an eye on your key locations and schedule their distribution ahead of your review meetings.

Quickly build ad-hoc reports for internal and external stakeholders based on your chosen locations, metrics, and time periods.





Energy Manager

Identify the outliers to solve issues faster

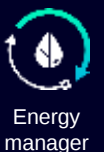
Check all your **buildings` portfolio** with one click

Monitor your fleet of site according to their **size & consumption data**

Identify the **outliers** in your portfolio

Deep dive into the specific building to have more insight

Clarify the root cause and check deeper with Operations Manager



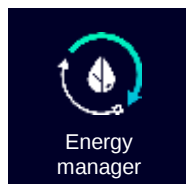
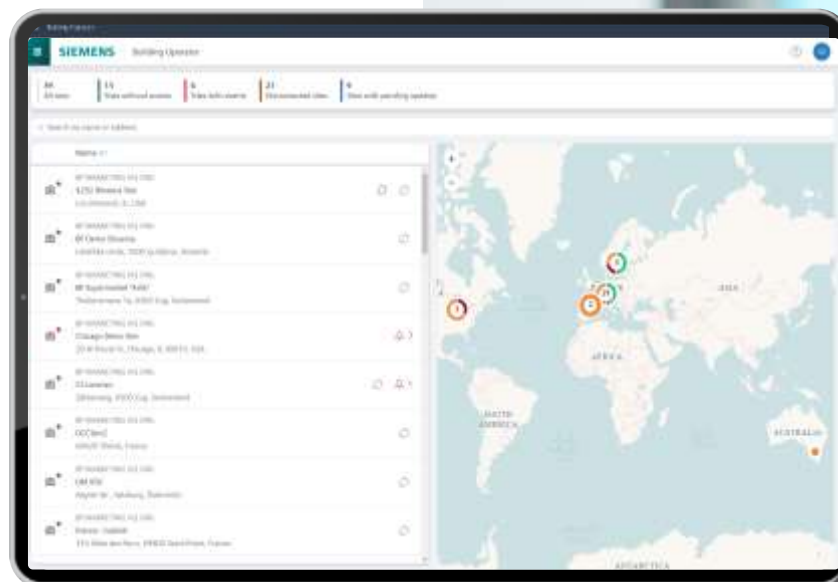
Jon Facility Manager

Operating buildings efficiently

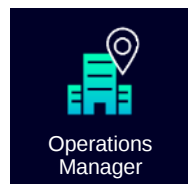




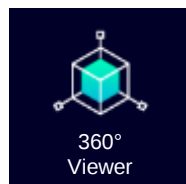
With Building X, I can spot inefficiencies and resolve issues before they occur.



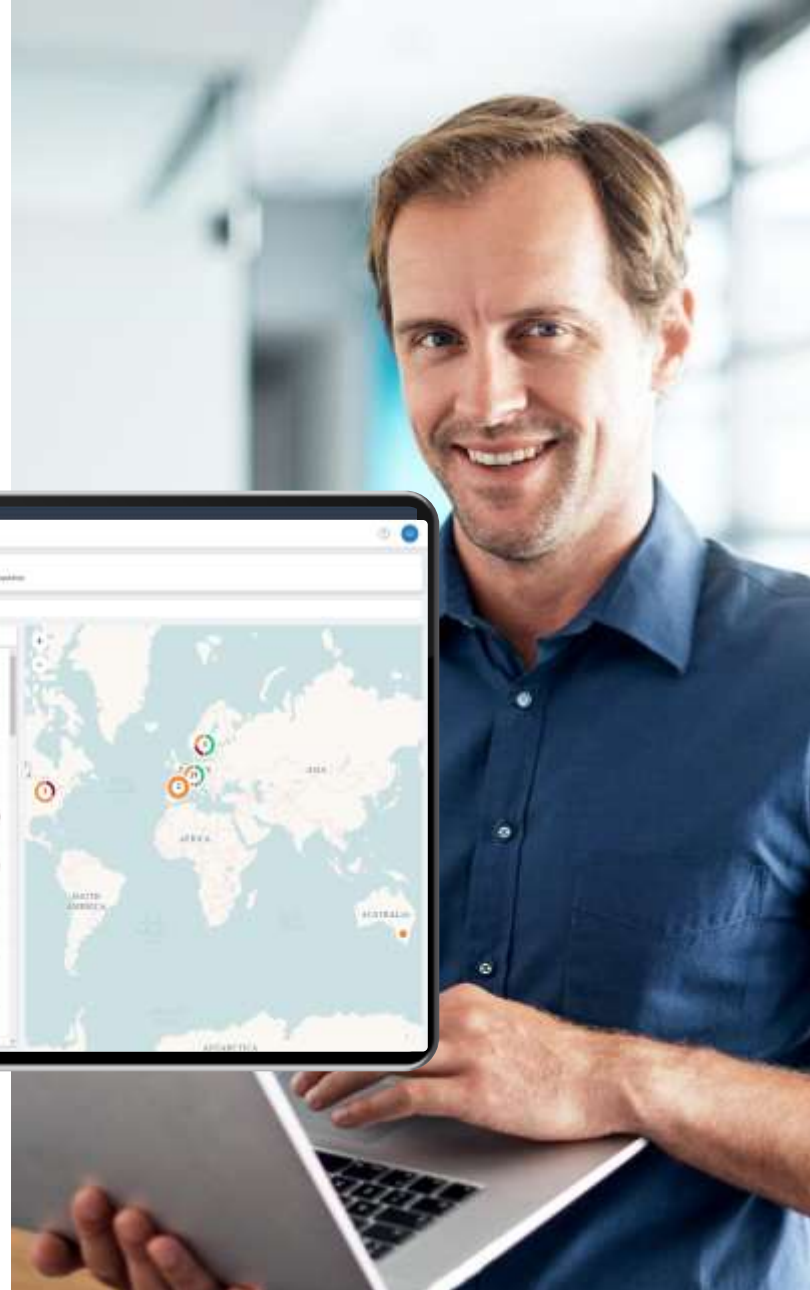
Energy
manager



Operations
Manager



360°
Viewer



Facility Manager

Remote is smart

Save time and expenses by securely monitoring and controlling multiple sites remotely.

Stay alert

Take immediate action when safety thresholds are reached or when budgets are projected to be exceeded.

Bring energy efficiency to a new level

Benchmark buildings to identify outliers and check detailed consumption per building.

Plan smarter, avoid surprises

Explore a location in a virtual 3D environment before maintenance interventions to inspect assets remotely and reduce unexpected delays.

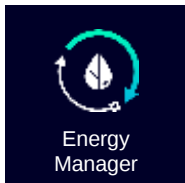
Easily spot inefficiencies when managing multiple buildings

Access the entire portfolio you're responsible for anytime, anywhere from a single point.

Easily switch between monitoring consumption and cost over time and between multiple buildings.

Spot outliers and unusual behavior, thus preventing budget overruns – continuously being kept informed via notifications.

Take out external factors in your comparison by normalization of your data – e.g. weather normalization.

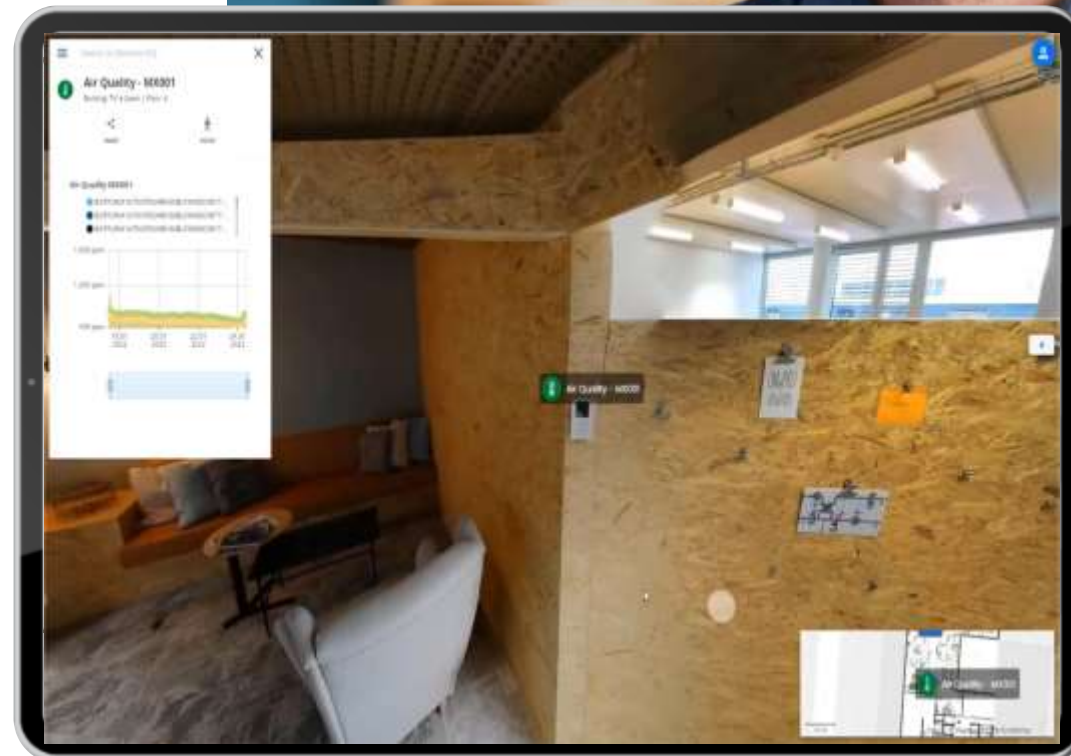
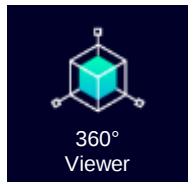
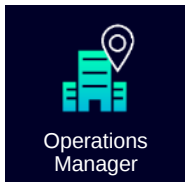


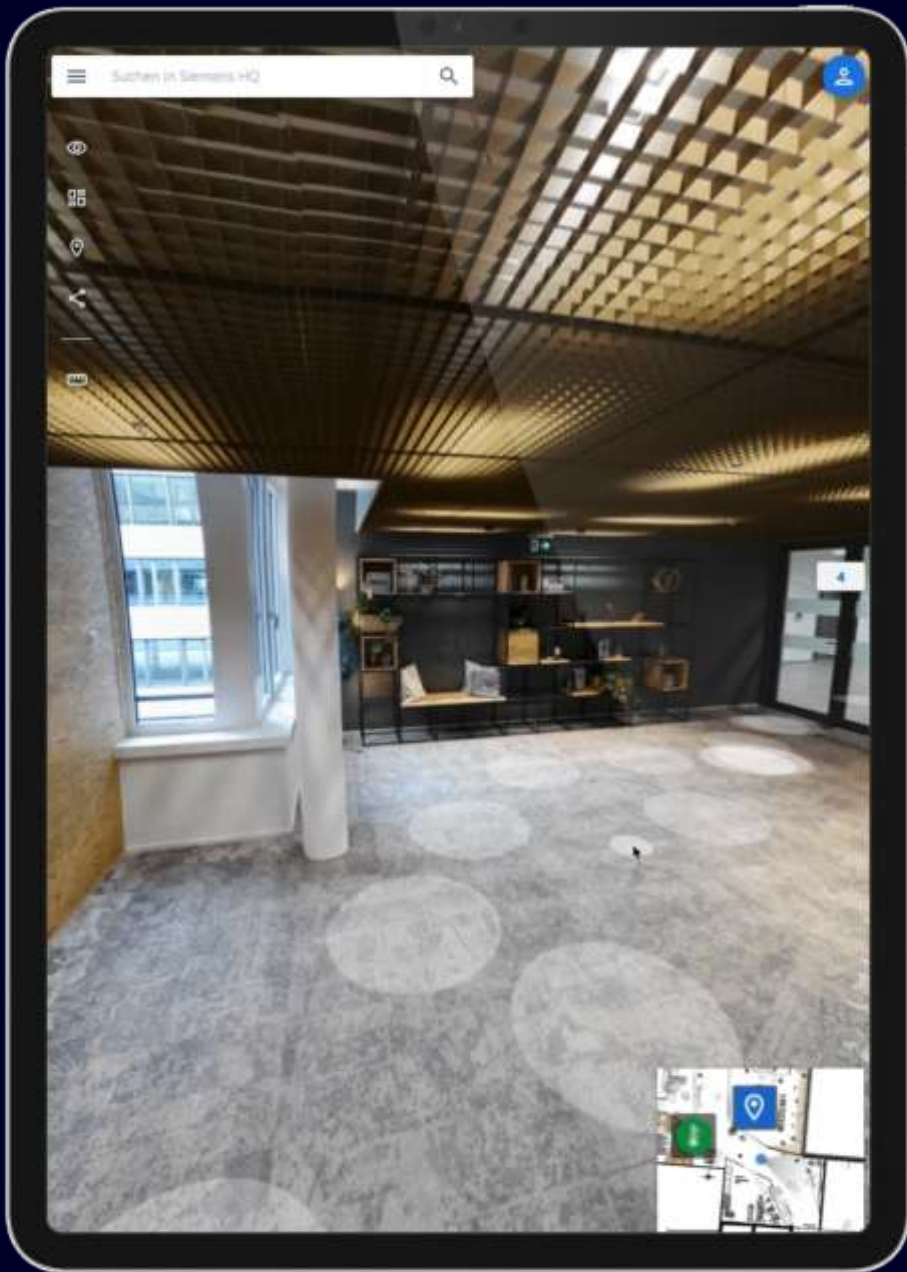
Ensure smooth operations after identifying inefficiencies in your energy consumption

Always **be up-to-date** with regards to the systems' status and health in all your buildings.

Save time and travel expenses by digitizing your activities and **solving the issue remotely**.

No delays! Panoramic representation of your building in 360° Viewer helps you better plan your maintenance operations and reduce delays.





360° Viewer

Access your building data from design to operational face with one click!

Check the site **before you visit**

Navigate in the buildings to **identify the device locations**

Monitor the real-time data & dashboards

Act fast to **solve the issues faster** & easier



360°
Viewer

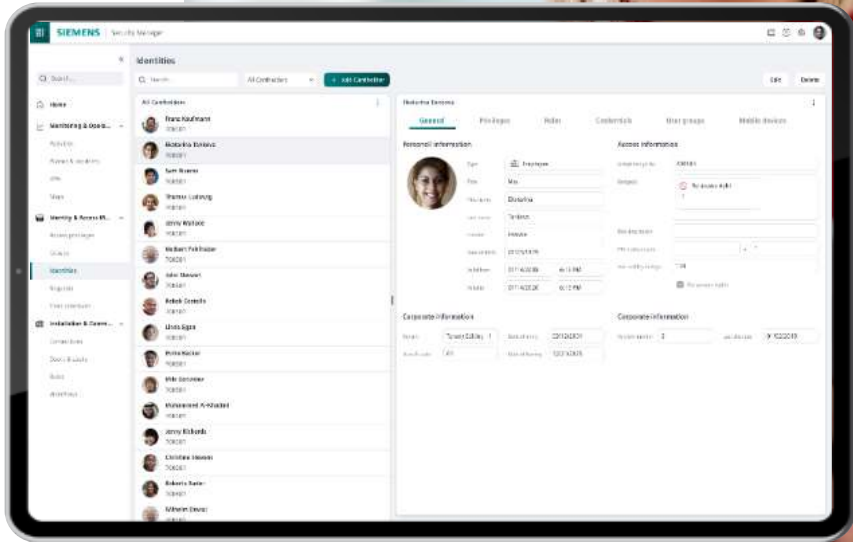
Lena Security Manager

Oversee the security operations





Building X allows me to protect people and assets with the need for security, safety and compliance in a decentralized environment.



Security Manager

Manage access anywhere and anytime
Open doors with smart phone.

Hustle free on- and offboarding
Provide pre-defined workflows to enable employees' self-service.

Do more, think less
React fast to security alarms & incidents.

Make good decisions
Get actionable insights based on security data to improve business continuity & system uptime.

Customize security solutions
Use intuitive low-code environment to develop a solution that meets your needs.

Extend on-prem systems
Re-use hardware by integrating with access control- and video systems (SiPass, SIPOINT, Siveillance Video).

Smart & integrated security management in the digital age

Physical access management

Flexible management of access to doors and buildings with different tokens or smart phone, predefined workflows and centralized identity and access management to make security tasks easier.

Alarms & incidents

Provide “out-of-the-box” dynamic standard operating procedures (SOPs) to resolve incidents

Maintenance & occupancy monitoring

Visualization of site entry points, analysis of room utilization, identification of maintenance candidates to improve overall security.

Extend on-premise systems

Re-use of existing HW (SiPass, SIPORT, Siveillance Video) to protect your investment.

Low-code environment

Develop a solution that meets your needs.



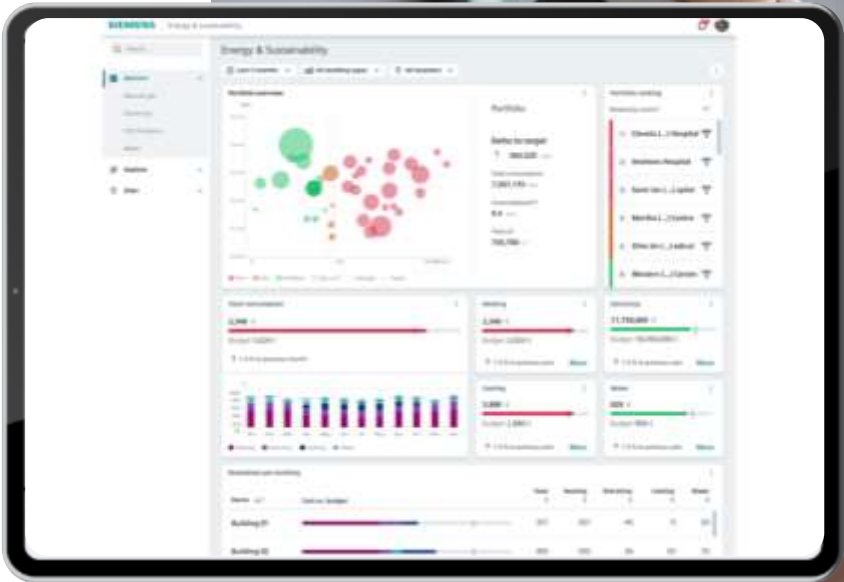
Chris Real Estate Manager

Driving the real estate digital
transformation





Building X is a digital backbone for my real estate strategies



Keep an eye on all assets

Provide a safe, secure and comfortable workplace thanks to Building X applications.

Improve operational strategies

Drive proactive utility or energy optimizations strategies by using real-time insights and data-driven decision support.

Bring information from multiple buildings under one place

Easily integrate and normalize data across heterogeneous systems/technologies/sites on one cloud platform.

Reduce cybersecurity risks

Address cybersecurity and data privacy considerations with a security-by-design approach.

Track and achieve sustainability targets

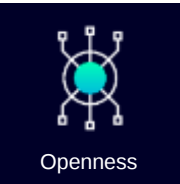
Monitor and benchmark energy efficiency across my entire portfolio to achieve my Net Zero goals.



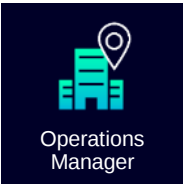
Security Manager



Energy manager



Openness



Operations Manager



Real Estate Manager

Integrate data from multiple buildings under one cloud platform

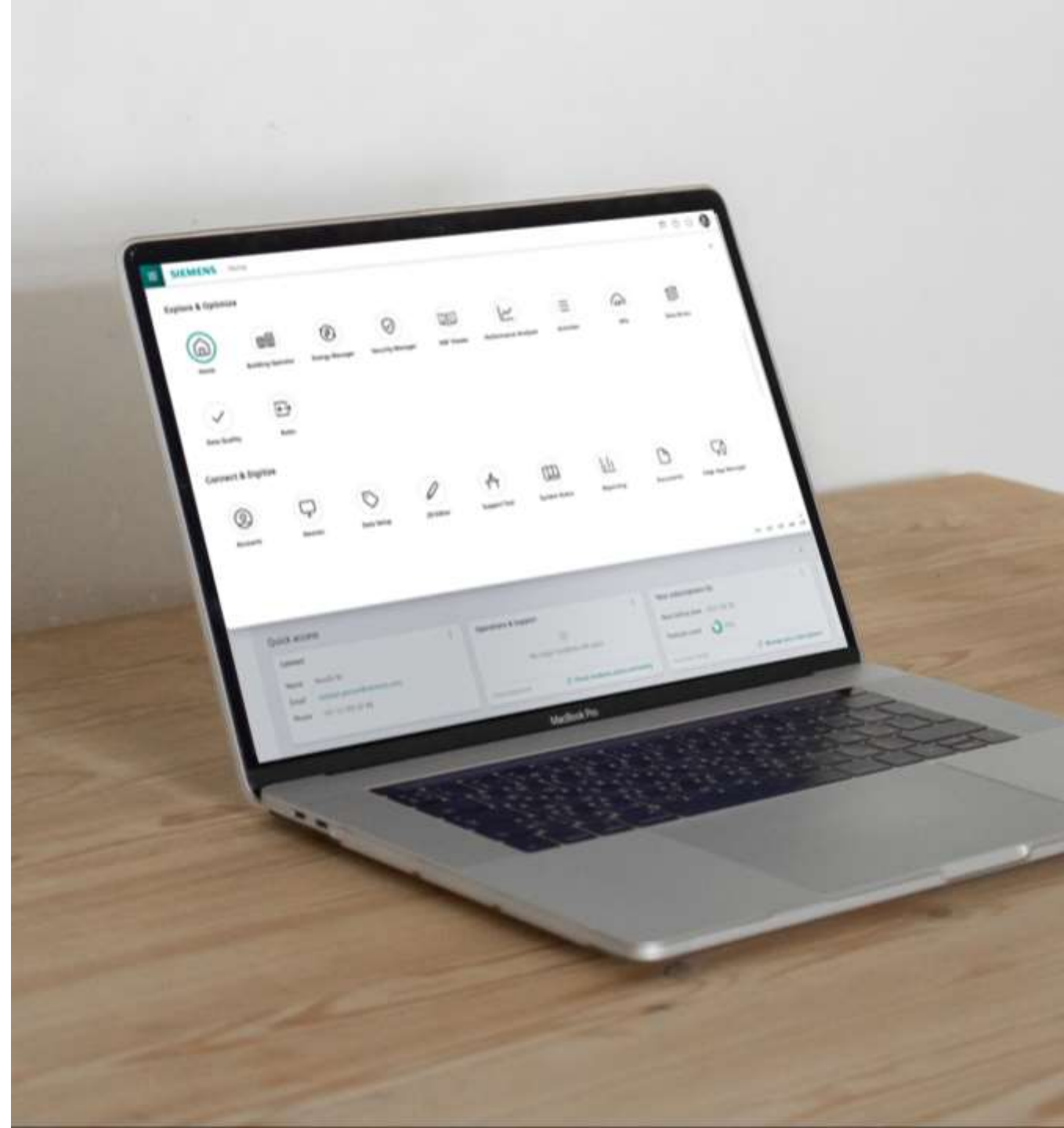
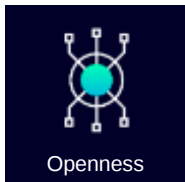
Receive data from several sensors, field devices, controllers and building management systems located in different real estates.

Normalize the information you get through one cloud platform.

Access, monitor and control all building data on the platform **in a simplified, stable and secure way.**

Expand your existing dashboard (e.g. by integrating energy and/or utility data) **and get new insights** through a comprehensive API portfolio based on your business processes.

Unleash the business value of data and **find new operational and cost efficiencies** of the properties you manage.



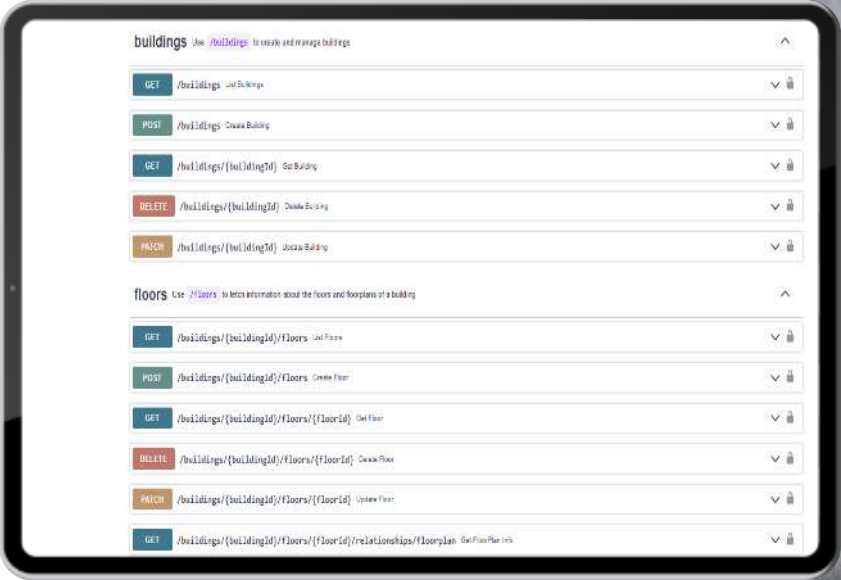
Carl IT Manager

Managing diverse
digital landscapes





Building X reduces the complexity while I am leading the wide integration of vendors to our IT systems.

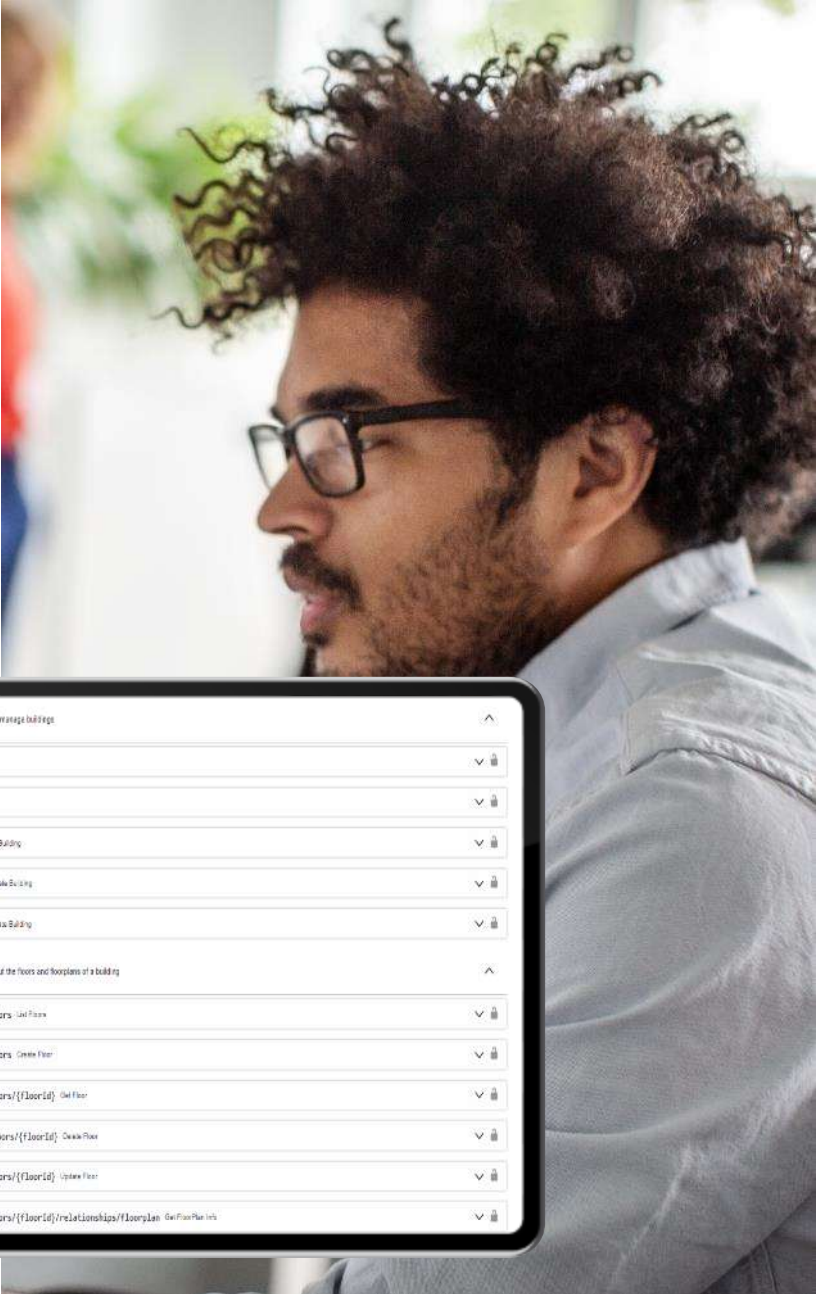


No changes in existing IT infrastructure during connection of the building devices in our system.

Boosting my operational efficiency with simple cloud connectivity solutions for building products.

No need to travel to update my edge devices.

Cyber-security is always in mind while security updates are done from the cloud.



IT Manager

Ayse Application Engineer

Future-proofing businesses'
applications and software solutions





Building X allows me to increase the operational efficiency of software applications.



Application engineer

Stakeholders' needs always met thanks to the applications' functionality, reliability, maintainability, compliance, security and scalability.

Spot malfunctions and act faster thanks to up-to-date data, easy-to-use reports and crystal-clear dashboards.

Easy and fast access to information that demonstrates my reactivity in addressing the challenges of my stakeholders.

Independence and efficacy thanks to the fact that I can create, design and test new and existing software applications in no time.

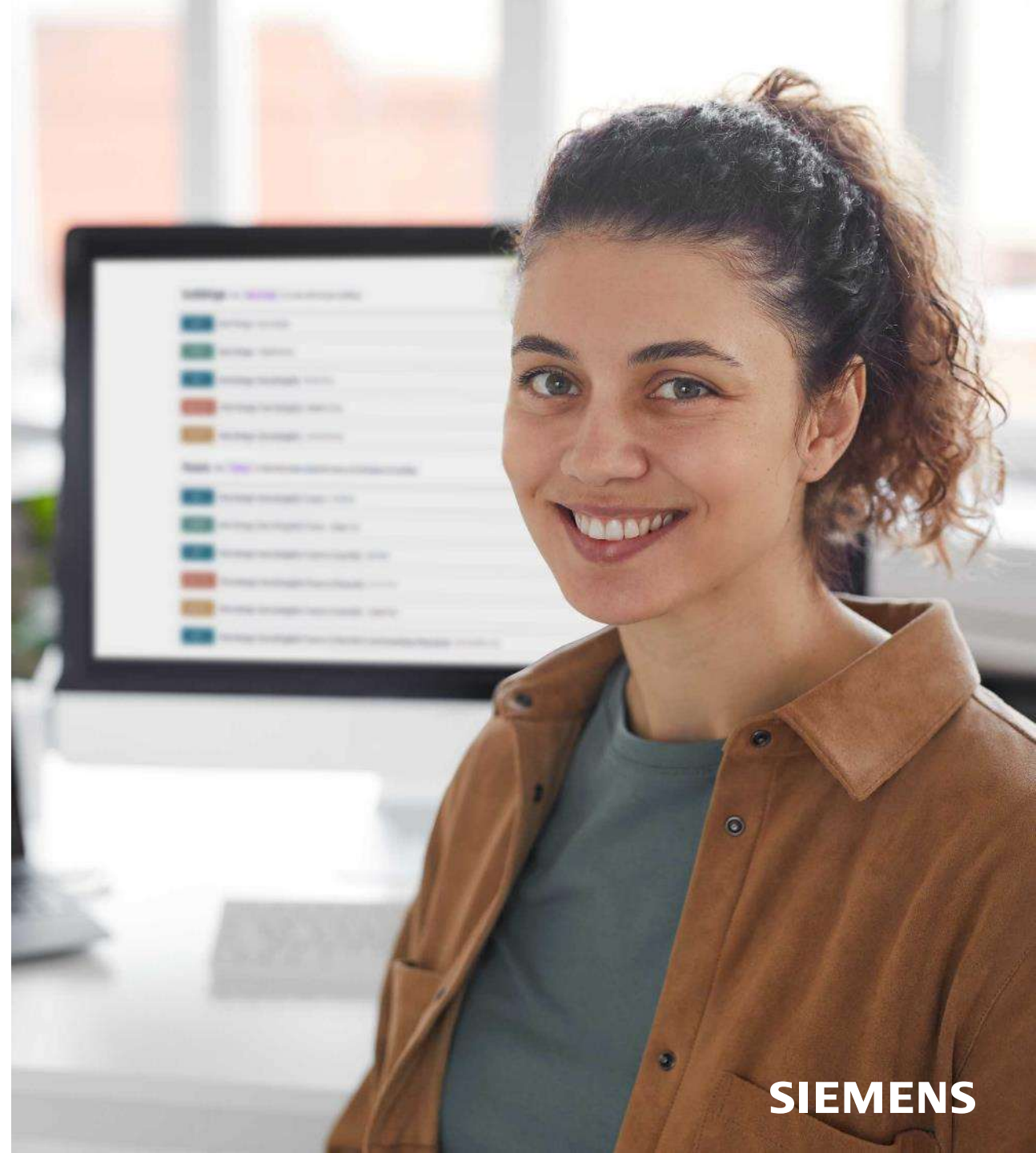
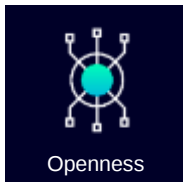
Create future-proofing businesses' applications and software solutions

Enrich your application

by providing access to building-related data in the cloud and combine with data from other vendors.

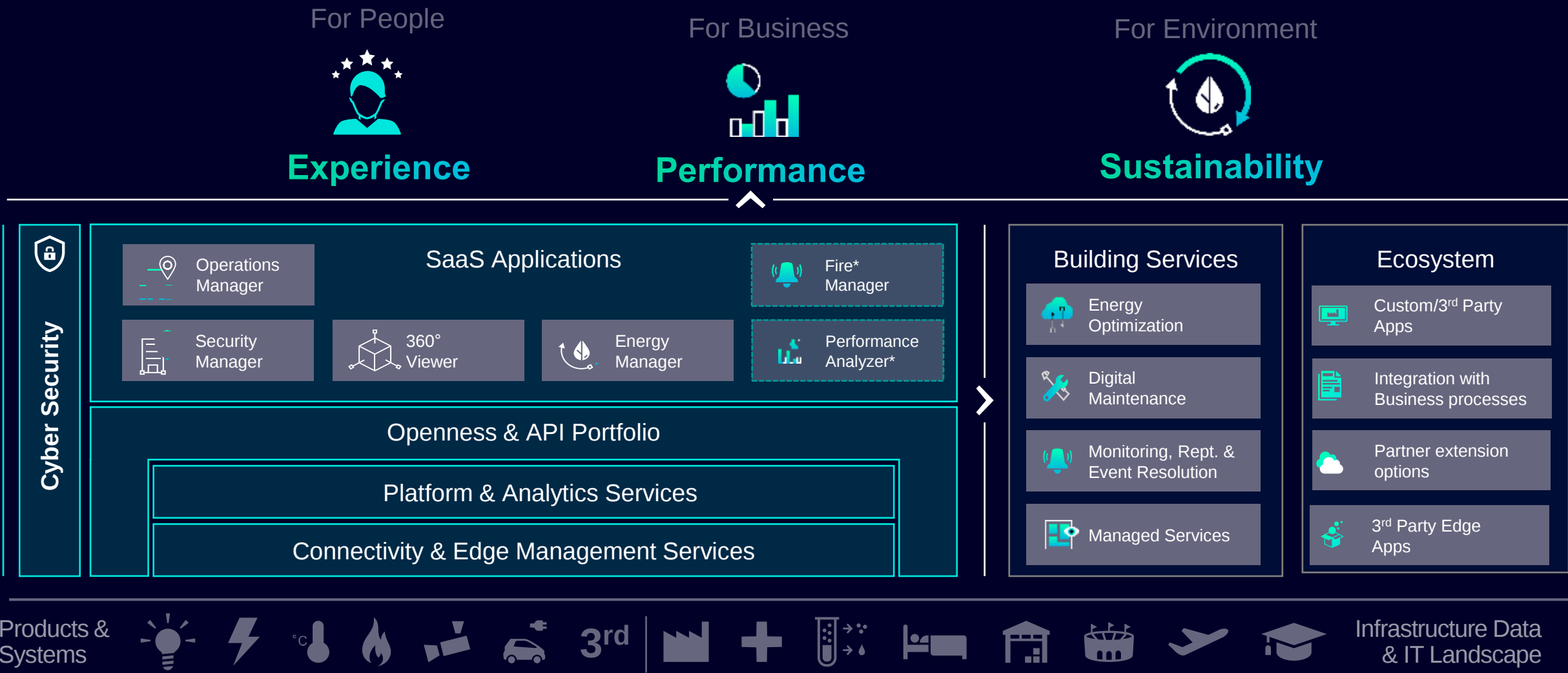
Lower initial setup cost

to access data from the building for any application which needs building data.



Building X: AI-enabled applications, platform and connectivity for future proof buildings enabling digital services

Building X



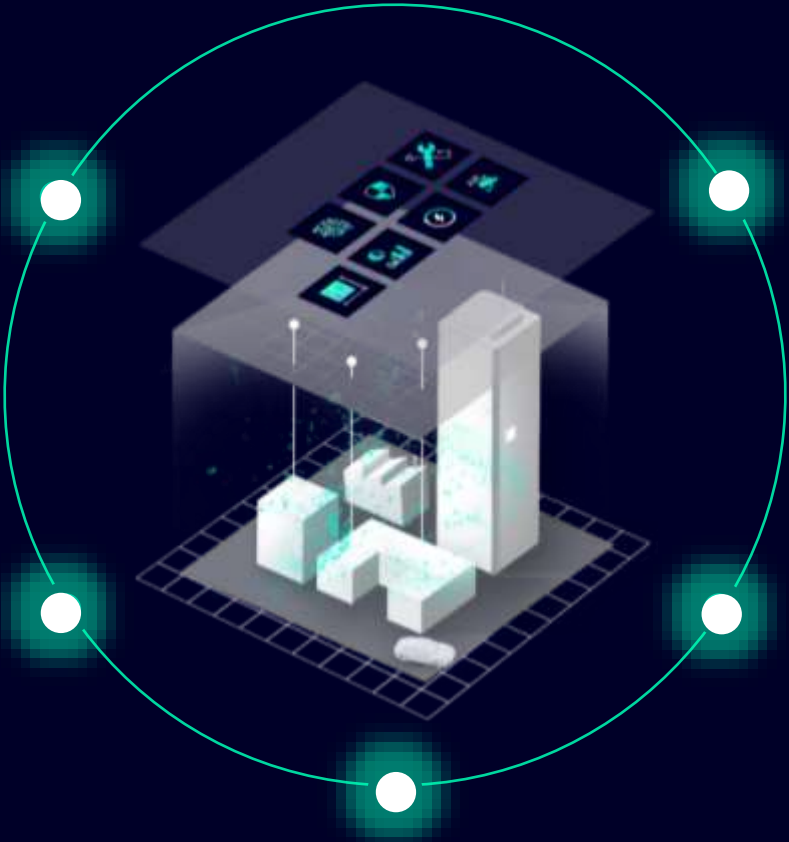
Building X meets today's market expectations

Interoperable

Full transparency of the entire building portfolio for data-driven decision making across systems and domains

Open

State of the art cloud architecture with open APIs to create customer owned applications, integrations and ecosystem.



End2End

outstanding user experience with single sign-on and intuitive workflows, end2end customer journeys from marketplace to developer portal

Flexible

Easy X-domain expansion & apps to expand SaaS activities across building domains

Holistic

From connectivity to edge layer, cloud services to advanced analytics, APIs to SaaS applications portfolio

Why we are uniquely positioned to support our customers' digital and sustainable transformation

1 Strong global presence and trusted partnerships

€3.2bn Service business

10k Service technicians in 300 locations around the globe

2 Well positioned to enable customer's sustainability goals

€4bn Energy savings under guarantee for customers

>25 Years of offering energy and performance services

3 Pioneer in infrastructure digitalization

3.2m Devices connected to our cloud platform

>150 Digital applications and offerings



Siemens Real-Estate Sweden

CHALLENGE



Efficient door maintenance

Understand building utilization after COVID-related lockdowns

BENEFITS



40% less food waste

20% savings in cleaning cost

“With real-time data that we collected with the Building X portfolio we quickly became aware of the 60 – 70% drop in building occupancy. With this newfound focus, we could more easily channel our efforts in preserving resources.”

Michél Moussa

CEO of Siemens Real-Estate Sweden

26

Offices
in Sweden

**Food waste &
cleaning cost**

Reduced

**Security
Manager**

Building X
Portfolio



With real-time data that we collected with the Building X portfolio we quickly became aware of the 60 – 70% drop in building occupancy. With this newfound focus, we could more easily channel our efforts in preserving resources.

Michél Moussa
CEO of Siemens Real-Estate Sweden





41

Weeks of
operations

11'150

University
students

Energy
Manager

Building X
Portfolio

SYK Finland

CHALLENGE

Finding solutions to problems before noticed by building occupants
Genuine carbon neutrality by 2030



SYK and Siemens

Close collaboration and regular workshops
Satisfying results achieved through customer centricity



“Building X will not only help us to modernize our buildings but also support our company to reduce its cost, increase our efficiency and offer cyber-secure solutions while overall making us ready for future challenges.”

Ville Kautto

Maintenance Manager for University Properties of Finland (SYK)



Building X will not only help us to modernize our buildings but also support our company to reduce its cost, increase our efficiency and offer cyber-secure solutions while overall making us ready for future challenges.

Ville Kautto
Maintenance Manager
for University Properties of Finland (SYK)



Reference video with Ville Kautto



SYK University Properties of Finland owns and manages university buildings. Ville Kautto, Maintenance Manager of SYK, talks about their collaboration with Siemens and their plans to use Building X to achieve their sustainability goals.

Watch the video on [YouTube](#)

//

With Building X, I will be able to address customer needs for highly customized, tailored solutions utilizing their building and equipment data. Thanks to the Building X portfolio, this can now be done cost effectively and in less time than ever before.

Tom Naylor
CEO of Cloudline Solutions



Reference video with Tom Naylor



Cloudline Solutions specializes in cloud-based applications. Tom Naylor, founder and owner, talks about industry challenges, how Building X will help to solve them and the benefits of cloud, API and ecosystem.

Watch the video on [YouTube](#)

Join us and ACCELERATE your digital transformation



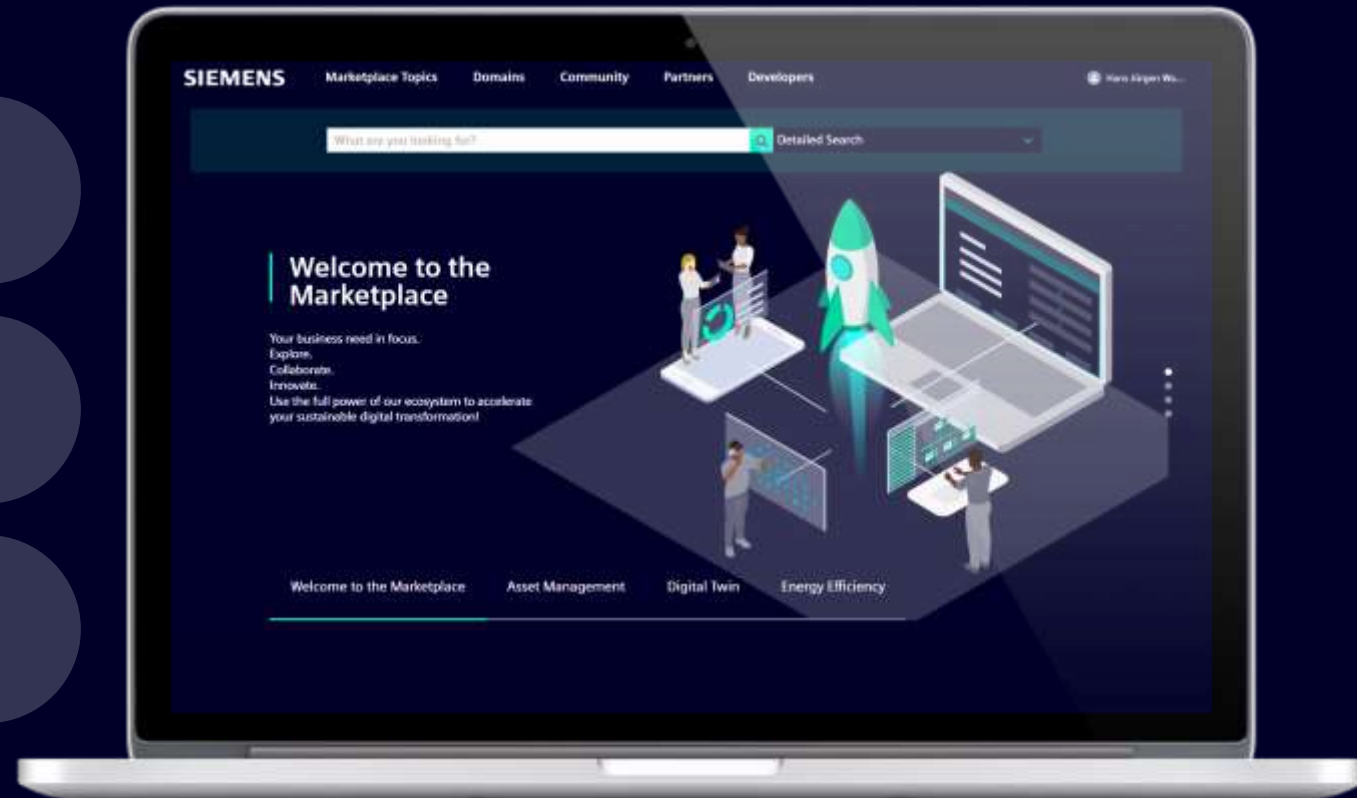
Join the marketplace



Explore the communities and engage with experts



Let's Xcelerate your digital transformation



Building X

Leap into the future

AI-enabled applications, platform and connectivity for future proof buildings

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