Creating perfect places with the power of data

Matthias Rebellius,
CEO Building Technologies Division, Siemens
Smart buildings help our customers become even more competitive
41% of energy worldwide is consumed by buildings

80% of total lifecycle cost of a building occur in the operation phase

30% of corporate real estate portfolios will consist of flexible office space

50% of workforce will be millennials by 2020
Owner

- Occupancy rate
- Increase in property value
- Compliance with standards and regulations
- Reducing costs

Operators

- Operational efficiency
- High reliability of the facility and its equipment
- Lower maintenance costs

Tenants

- Productivity of employees
- Safe and secure workplace

Visitors

- Feeling welcome, safe, and secure
- Easy navigation in a new building
Comfortable and safe

- Optimized room conditions
- Enhanced air quality
- Safe and secure place to be
- Intuitive operation
Energy and asset efficient

- Asset availability
- Maintenance costs
- Preventive/predictive maintenance
- Optimized energy footprint (CO₂)
Space and user efficient

- Transparency on space occupancy
- Asset tracking
- Indoor navigation
- Intelligent evacuation
Enhancing building performance with unique domain know-how
10,000 service technicians
200 performance engineers
4 locations
200 services overall
thereof 70 digital services

MindSphere Application Center

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siemens.com/innovation
Navigator powered by MindSphere

...based on domain know-how and built-in data analytics
Navigator powered by MindSphere

580,000 data points connected

80,000 connected buildings

400 million data values analyzed per day
“We want to stop the effects of time and create a condition where things no longer deteriorate so the next-generation can know our story, too.”

John Patten
Manager of Bunjilaka Aboriginal Cultural Centre at Melbourne Museum
Customer challenges:

- Reducing electricity, natural gas and water usage across the various facilities
- Public perception and visitor satisfaction
- Greater control of the thermal conditioning of the facility

35% CO₂ and greenhouse gas reduction

31% project utility cost reduction
“We earn our money by managing 170 shops and therefore renting out 102,000 m².”

Marianne Harjula
Sello Event Manager
Customer challenges:

- Tenant satisfaction and retention
- Public perception and visitor satisfaction
- Modernization and efficiency (€/sqm.)

€118,000 savings in energy efficiency and maintenance per year

50% immediate reduction of the district heating
Key figures FY17

€6.1 bn assets under management
€2.5 bn revenue
13.9 m square meters rentable building space
2,000 locations
Game changer

- Digitalization
- Connectivity and agility
- New ways of working
- Health and wellbeing
- Sustainability
Carbon Neutral Program

Energy Efficiency Program

- **€100 m** Investment
- **€20 m** OPEX reduction
- **~5 yrs.** Return on invest
Space efficiency

Better utilization of space
Improvement of operating expenses and services
Optimization of footprint

Enabled by suite of services and applications from Building Technologies

Example: Occupancy detection
Digital CREM

- Individual workplace control and personalized comfort
- Competitive advantage through smart building technology
- High asset and system performance

Enabled by Building Information Modeling, sensors and suite of applications from Building Technologies
Connected real estate assets drive efficiency and productivity.
Closed loop innovation – the digital twin improves development, construction and operation

MindSphere connects the virtual with the real world – from factories to infrastructure
By enabling our customers to be more competitive, we create additional business potential for Building Technologies:

• Digital Business of €300 million in FY17, growing by more than 20% p.a. in the next 5 years
• Drives continued overall growth more than market

#CreatingPerfectPlaces