

# Solutions that Transform Businesses

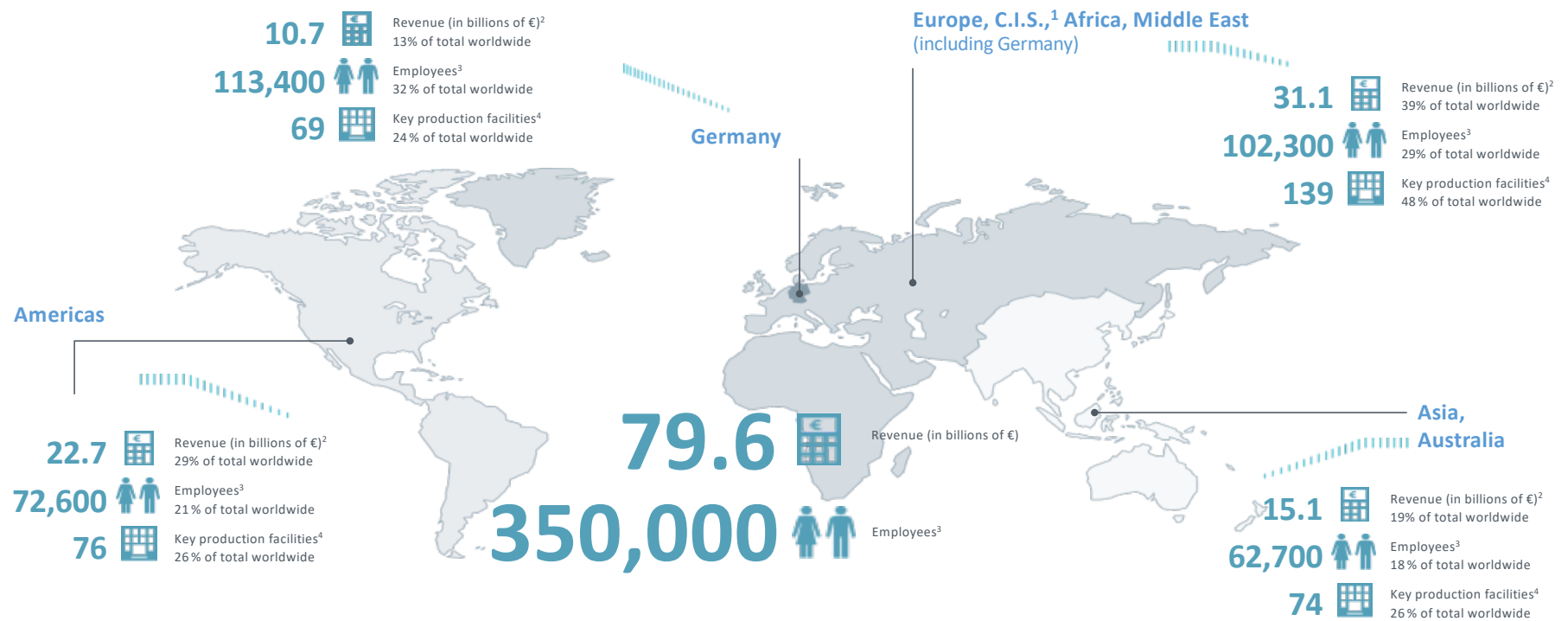
Harness the Power of Data

• Unrestricted © Siemens AG 2020

• [usa.siemens.com/smartbuildings](https://usa.siemens.com/smartbuildings)

# Siemens Global presence

## Close to customers all over the world



All figures refer to continuing operations.

<sup>1</sup> Commonwealth of Independent States.

<sup>2</sup> By customer location.

<sup>3</sup> As of September 30, 2016.

<sup>4</sup> Fifteen employees or more.

# Digitalization and the Internet of Things (IoT) **SIEMENS** *Ingenuity for life*

## Smart Devices



Significant growth in IoT devices provides valuable data

## The Cloud



Real-time data is collected and sent to "the cloud"

## • Data Analytics



Advanced data analytics deliver actionable insights

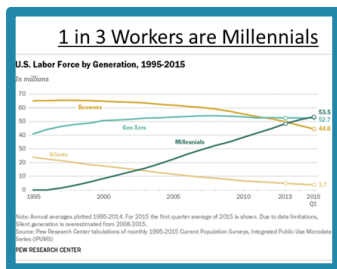
## Mobile Interface



Data and insights are available anytime, anywhere

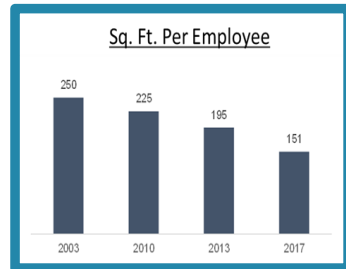


# Challenges Facing Real-estate and Workplace Executives



## Changing Workforce Demographics

Younger workers demanding different work environments and amenities



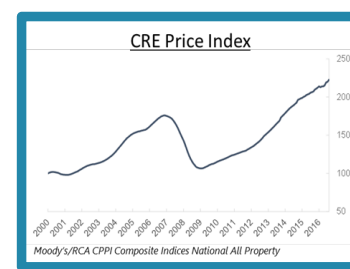
## Shrinking space per employee

Denser offices require new technologies to avoid employee disruption



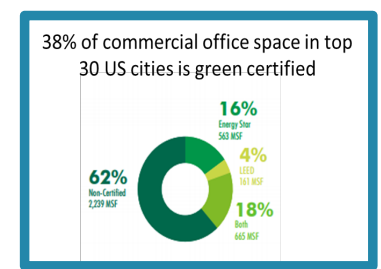
## Lack of Data

Many CRE & Tennant decisions are made without credible facts



## CRE prices on the rise

Increasing focus on optimizing real estate investments



## Sustainability

Fascial incentivization for energy savings



# Leverage digital building technologies to deliver operational efficiency and enhance the occupant experience

## Operational Efficiency



Traditionally the focus has been on operating costs and system performance



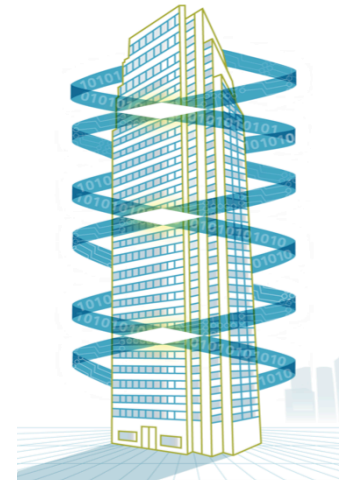
## Occupant Experience



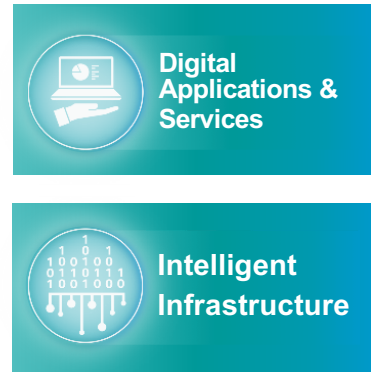
Untapped potential to create more people-centric building environments



## Smart Building



Building becomes an active contributor to the success of the business



# The Connected Development/Building of the Future

## Planning and building the proper infrastructure

**“Edge Devices”  
(short life)**

Sensors, edge computing, beacons, IoT devices

**Data Analytics**

Cloud hosting, data storage, data ownership, data analytics

**System Layer  
(medium life)**

Traffic mgt, parking, metering, building systems, fire life-safety, security and mass notification...

**Infrastructure Layer  
(long life)**

Water/sewer, natural gas piping, electrical grid, street/trail lighting, communications (fiber optics)...

# Go beyond efficiency to enhance well-being and drive productivity

Energy efficiency



**\$3**  
for utilities

Space efficiency



**\$30**  
for rent

People efficiency



**\$300**  
for people

What does a 1% increase in employee productivity mean for you?

Our **Smart Building** vision goes beyond operational efficiency by placing **peoples' needs** front and center



Source: JLL



# Siemens is Leading the Smart Building Revolution – Connecting People in the Building with the Building

## Connecting People

IoT Network of Smart  
Sensors

## Analyzing Data

Data Analytics Platform

## Connecting Systems

Integration Platform



Occupant  
Experience



Operational  
Efficiency



# Smart Building Value Chain



**Development Centric**



**Operational Centric**



**Tennant/Occupant Centric**



Cost Reduction



Faster Build



Occupancy



Energy



Utilization



Optimization



RTLS



Experience &  
Productivity



New & Derived

# Technology Partnership: 5411 Wilshire

## Project Summary

The Wilshire Tower is a planned 42-story tower set to open in 2023 in the Miracle Mile district of Los Angeles. The property is set to house luxury apartments, restaurants, retail, fitness center and a park with a specified dog area. The building is also going to be home to new technologies such as a robotic parking system and places to charge cars.

## Project Technology Plan

- **Security:** – ex: Elevator Card Access Integration
- **Fire:** – ex: Emergency Responder Radio System
- **Automation:** – ex: Room Booking and Home Automation Controls
- **Energy:** – ex: EV Charging and Utility Meter Integration
- **Lighting:** (future) – ex: Event Showing Lighting
- **Network:** – ex: Digital Signage Wayfinding and Converge Network
- **Websites:** – ex: Tenant Notification System and Resident Website
- **Mobile Apps:** – ex: Parking App and Home Automation App
- **Concierge:** – ex: Package Delivery Locker and Gym Booking
- **Transportation:** – ex: Parking Space Management (Auto Parkit)
- **Services:** – ex: Remote System Access and Software Upgrade Plan





# Technology Partnership : Foreside

## Project Summary

Portland Foreside's 10 acres will become a mixed-use neighborhood. The buildings are being designed to meet the historical significance of the area allowing for year-round enjoyment of Portland's waterfront through much needed housing (apartments and condominiums), office space, hotel lodging, restaurants, local and national retail, and impeccably designed outdoor spaces to promote communal gathering.

## Project Technology Plan

- **Security:** – ex: Elevator Card Access and License Plate Recognition
- **Fire:** – ex: Occupant Evacuation Operation and CO Detection
- **Automation:** – ex: Smart Irrigation and Room Booking
- **Energy:** – ex: Main Water Metering and Tenant Utility Billing
- **Lighting:** – ex: Outdoor RGBW Lighting and Parking Garage Lighting
- **Network:** – ex: Fiber Optic Cabling and Digital Wayfinding Signage
- **Websites:** – ex: Resident Website and Online Billing Website
- **Mobile Apps:** – ex: Digital Valet App and Health App
- **Concierge:** – ex: Pool Booking and Gym Booking
- **Transportation:** – ex: Ride Share and Delivery Truck Parking
- **Services:** – ex: Software Upgrade Plan and Remote System Access



# Technology Partnership: STEAM District

## Project Summary

Plans are in motion to redevelop parts of Salt Lake City into a vibrant, new mixed use/community space. It is called the STEAM District for its unique blend of tech, business, the arts, recreational and living facilities, and more. STEAM is the popular acronym, "STEM" (Science, Technology, Engineering, and Math), plus "A" for the Arts -- core subjects for the complete person to compete in the marketplaces of today and tomorrow.

## Technology Under Investigation

- **Security:** – ex: Security Command Center
- **Fire:** – ex: Fire Command Center and Fire Alarm System
- **Automation:** – ex: Home Automation Controls and Predictive Analytics
- **Energy:** – ex: Gas Metering and Water Metering
- **Lighting:** – ex: Street Lighting and Parking Garage Lighting
- **Network:** – ex: Geofencing and GIS Asset Tracking
- **Websites:** 0 –
- **Mobile Apps:** – ex: EM Virtual Valet and EM Digital Concierge/Laundry
- **Irrigation:** – ex: Smart Community Irrigation
- **Transportation:** – ex: Traffic/Road Sensors and Remote Parking
- **Services:** 0 –



# Technology Partnership : 1700M

## Project Summary

Located at 1700 M Street in DC, the site is well-positioned for trophy-class office space and unique retail opportunities in the prime Golden Triangle neighborhood within the Central Business District. The Golden Triangle is home to more than 3,000 organizations such as top law firms, lobbyists, associations, and architecture firms; 200 restaurants; 300 shops and retailers; seven hotels; and six national parks. The high-profile site offers easy access to Connecticut Avenue and K Street, and is three blocks from the Farragut North Metrorail Station.

## Project Technology Plan

- **Security:** – ex: Virtual Guard and License Plate Recognition
- **Fire:** – ex: IoT Smoke Detectors and Smoke Control
- **Automation:** – ex: IoT Restroom Controls and Room Booking
- **Energy:** – ex: Main Water Metering and Tenant Utility Billing
- **Lighting:** – ex: Outdoor RGBW Lighting and Parking Garage Lighting
- **Network:** – ex: Fiber Optic Cabling and RTLS
- **Websites:** – ex: Sales/Marketing Website and District Website
- **Mobile Apps:** – ex: Indoor Navigation App and Parking App
- **Concierge:** – ex: Digital Signage and package Delivery Lockers
- **Transportation:** – ex: Ride Share and Delivery Truck Parking
- **Services:** – ex: Geofencing System and Parking system

