

# SMART CITIES OF THE FUTURE & TECHNOLOGY SOLUTIONS

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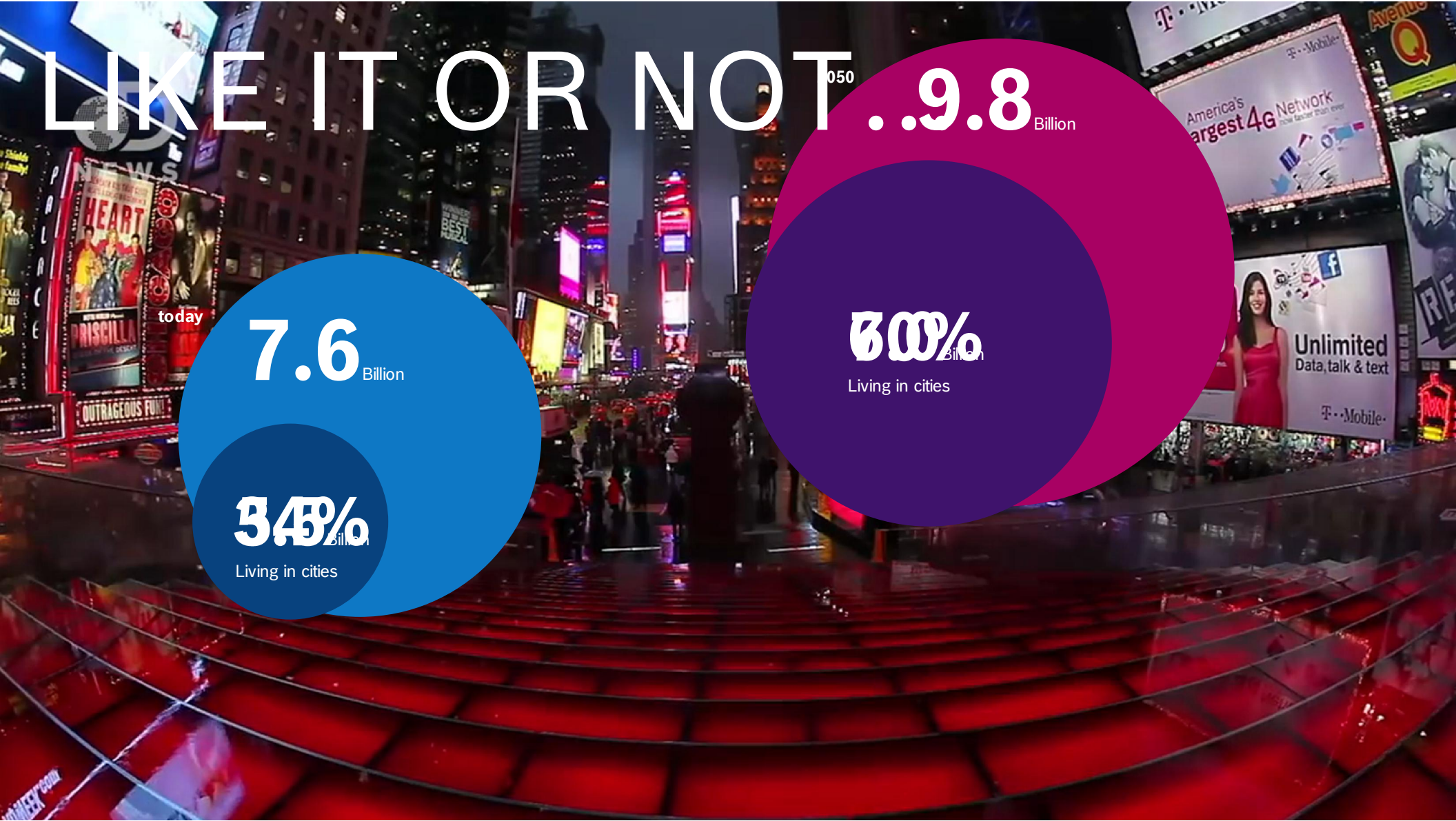
# LIKE IT OR NOT<sup>050</sup>

**9.8** Billion

today  
**7.6** Billion

**34%** Billion  
Living in cities

**80%** Billion  
Living in cities



BUT HOW DOES THIS  
CHANGE YOUR  
EVERYDAY LIFE?



THE HIGHER NEED FOR ENERGY  
WILL MAKE IT A EVEN MORE  
VALUABLE GOOD!



MORE PEOPLE  
MORE WASTE

618 kg/P

 **BOSCH**

DO YOU FEEL  
SAFE?



YOU WILL BE STUCK IN TRAFFIC  
JAM MORE THAN 46H PER YEAR



GOOD NEWS:  
YOU DON'T HAVE TO  
LIKE THAT PART ABOUT  
URBANIZATION!





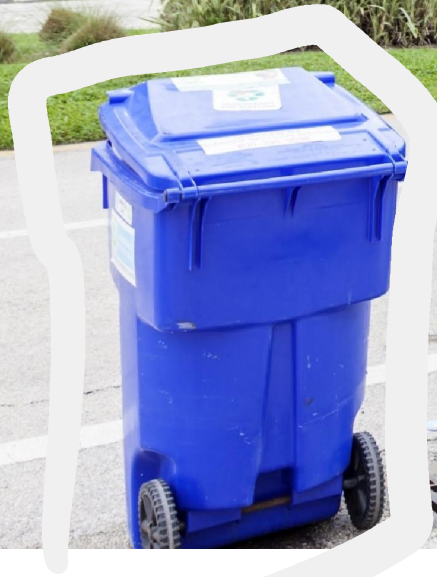
THE TRASH CANS  
ARE NOT CLEVER ENOUGH TO  
RECOGNIZE WHEN THEY ARE  
FULL?

Building



 **BOSCH**

THE TRASH CANS  
ARE NOT CLEVER ENOUGH TO  
RECOGNIZE WHEN THEY ARE  
FULL? SOON THEY WILL BE!



# CARING ABOUT WHERE AND HOW YOUR CAR IS PARKED?

Mobility



# CARING ABOUT WHERE AND HOW YOUR CAR IS PARKED? NOT FOR LONG ANYMORE!

Mobility





**BOSCH**

=



+



+



Building



Energy



Security



Governance



Mobility



Decentralized energy solutions



Virtual power plants



Energy-efficient heating, hot water & cooling systems



## Energy

Connected home appliances



Smart homes



Connected building



## Buildings

# Bosch solutions

E-Mobility



## Mobility

Connected parking



Intermodal transportation



Fleet management



Environmental monitoring



E-Scooter



## E-governance

City data platform



Community app



Safety & security solutions



Flood recognition



Vivatar



## Safety & security

# SMART BUILDINGS: LANDSCAPE OVERVIEW AND BOSCH OFFERING

*"Shaping the future: can an office building think for itself?"*





# Trends in the Building Industry

## Challenges from digitalization, urbanization, and climate change

### Current trends and challenges

Construction boom due to demographic change and urbanization ('megacities')

Energy efficient and sustainable property utilization due to policy requirements, consumer demand, and cost savings over the entire life cycle

Workplace transformation by increasing co-working, freelancing, non-stationary work, and creating optimal working conditions

Digitalization of the building and construction industry (building information modeling – BIM)

### Leveraging efficiency potential in buildings<sup>1</sup>



**10-15%**

more productivity could be achieved by improving indoor air quality



**20-30%**

of maintenance and energy costs can be reduced using intelligent services

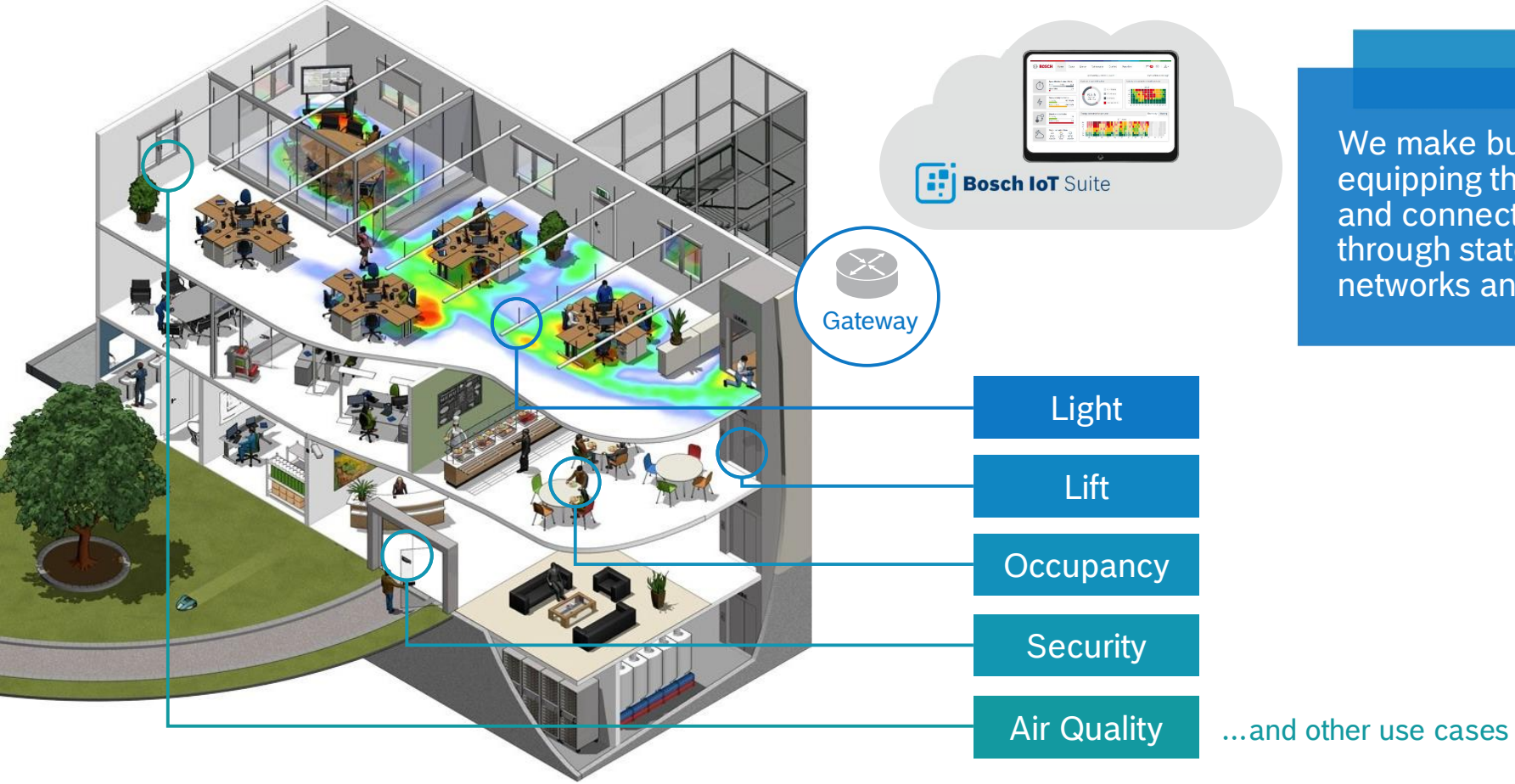


**50-60%**

of desks in office buildings go unused for a significant period of time

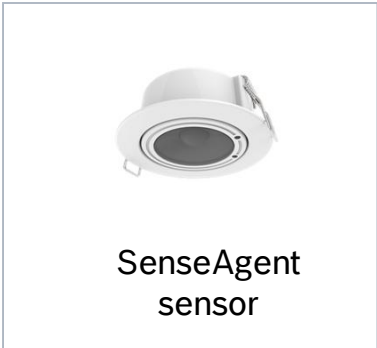
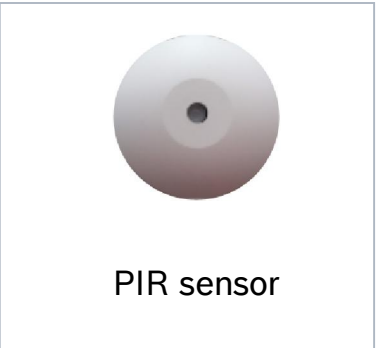
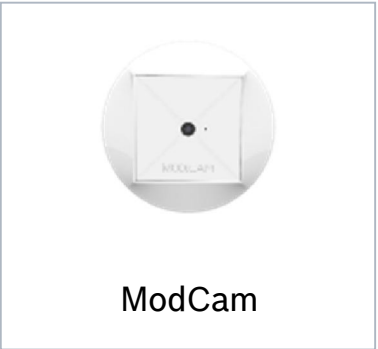
1) Data provided by customer surveys and Machina Research

# Bosch Connected Building Solution



# Bosch Connected Building Solution

## We connect a large variety of devices and sensors



# Bosch Connected Building Solution Features and benefits



Fast and easy installation in new and existing buildings (greenfield / brownfield)



Increased operational transparency for your building and building equipment



Common data lake for all building subsystems



Open APIs for easy integration with BIM, BMS and 3rd party solutions

# Bosch solutions for commercial buildings

## Reference projects across the globe



Suzhou Center: Future-oriented security for cutting-edge multi-purpose complex in China



Messe Frankfurt: Best-in-class security technology for visitors and exhibitors



Land Securities, London: smart office with digital data services



Adana Integrated Health Campus, Turkey: integrated security system to protect the entire campus

LifeCycle Tower ONE in Dornbirn: advanced lighting solution with highest standards of sustainability and user comfort



# NEXT CITY?



<http://www.urban-hub.com>

- Like no other company, Bosch can connect all things across a wide range of domains with own Bosch cloud.
- We offer a broad portfolio on solutions and services based on building blocks: scalable, adaptable and customer oriented.
- Solutions and services for sustainable, efficient and resilient cities.



[bosch.com/smartcities](https://bosch.com/smartcities)







# THANK YOU

[bosch.com/smartcities](https://www.bosch.com/smartcities)

 **BOSCH**