



**THE FUTURE OF FACILITIES  
MANAGEMENT,  
Looking over the horizon**

# TIME HORIZONS

- **0 – 5 Years**                      **Current**
- **5 – 10 Years**                      **Near term**
- **10 – 15 Years**                      **Over the horizon**

# TIME HORIZON: CURRENT

- **New value propositions**
- **Innovation**

# NEW VALUE PROPOSITIONS

1. **Service quality and access to technical expertise.**
2. **Risk management and providing added value through innovation.**
3. **BioT – collecting big data, analysing of that data and interpretation of the data in order to make it usable for better decision making.**

# INNOVATION

1. **Digitalisation, automation and innovation leading to greater productivity.**
2. **Bespoke customer experience and providing value for FM service delivery.**
3. **Cost management by optimising FM budgets and doing more with less.**

# INNOVATION

4. **Focusing on knowledge leadership and employee experience.**
5. **Sustainability with environmentally friendly systems and processes.**
6. **Availability and use of high quality data to make informed FM decisions.**

**TIME HORIZON: NEAR FUTURE**

# MEGA TRENDS THAT INFLUENCE

FACTOR MEGATRENDS	KNOWLEDGE MEGATRENDS
<ul style="list-style-type: none"><li>➤ Economic growth</li><li>➤ Globalisation</li><li>➤ Demographic trends</li><li>➤ Sustainability</li></ul>	<ul style="list-style-type: none"><li>➤ Technological development</li><li>➤ Increased knowledge</li></ul>
SOCIAL MEGATRENDS	TRENDS AND TENDENCIES
<ul style="list-style-type: none"><li>➤ Individualisation</li><li>➤ Commercialisation</li><li>➤ Growing focus on health</li></ul>	<ul style="list-style-type: none"><li>➤ Natural catastrophes in densely populated urban areas</li><li>➤ New ways of working</li></ul>

# KEY TRANSFORMATIONAL TRENDS

1. Business Productivity
2. Anything as a service
3. Sustainability
4. Energy management
5. Performance contracting
6. Partnerships and collaboration
7. Cloud services
8. Selling to the CXO

# OVER THE HORIZON



# ARTIFICIAL INTELLIGENCE

## Machine Learning

03

### Artificial Intelligence

Training data is consumed by artificial intelligence and applied. AI analysis results are fed back to building operational systems via machine-to-machine transactions that optimize the smart building overall for human comfort and energy efficiency.

02

### Training Data

Training data is generated, categorized and made ready for consumption by Machine Learning algorithms.

01

### Trend & Tag

Building operational data is trended and tagged, then transported to an AI system. To ensure interoperability, Project Haystack open source data tagging, storage and transport methodology is used.

## Smart Buildings

### AI implementation

A new set of commissioning agents will emerge that will utilize training data and will write reinforcement learning methodologies to further improve buildings.

+

### Training Data

#### Companies Emerge

New enterprises with algorithms-as-a-service and other products aimed at creating training data for Smart Building use cases will launch. Some will be government & large corporation-sponsored.

+

### Pattern Analytics

Within this step, pattern analytics are applied to further improve building operations. Constant monitoring and adjustment when faults are detected provide automated ongoing commissioning.

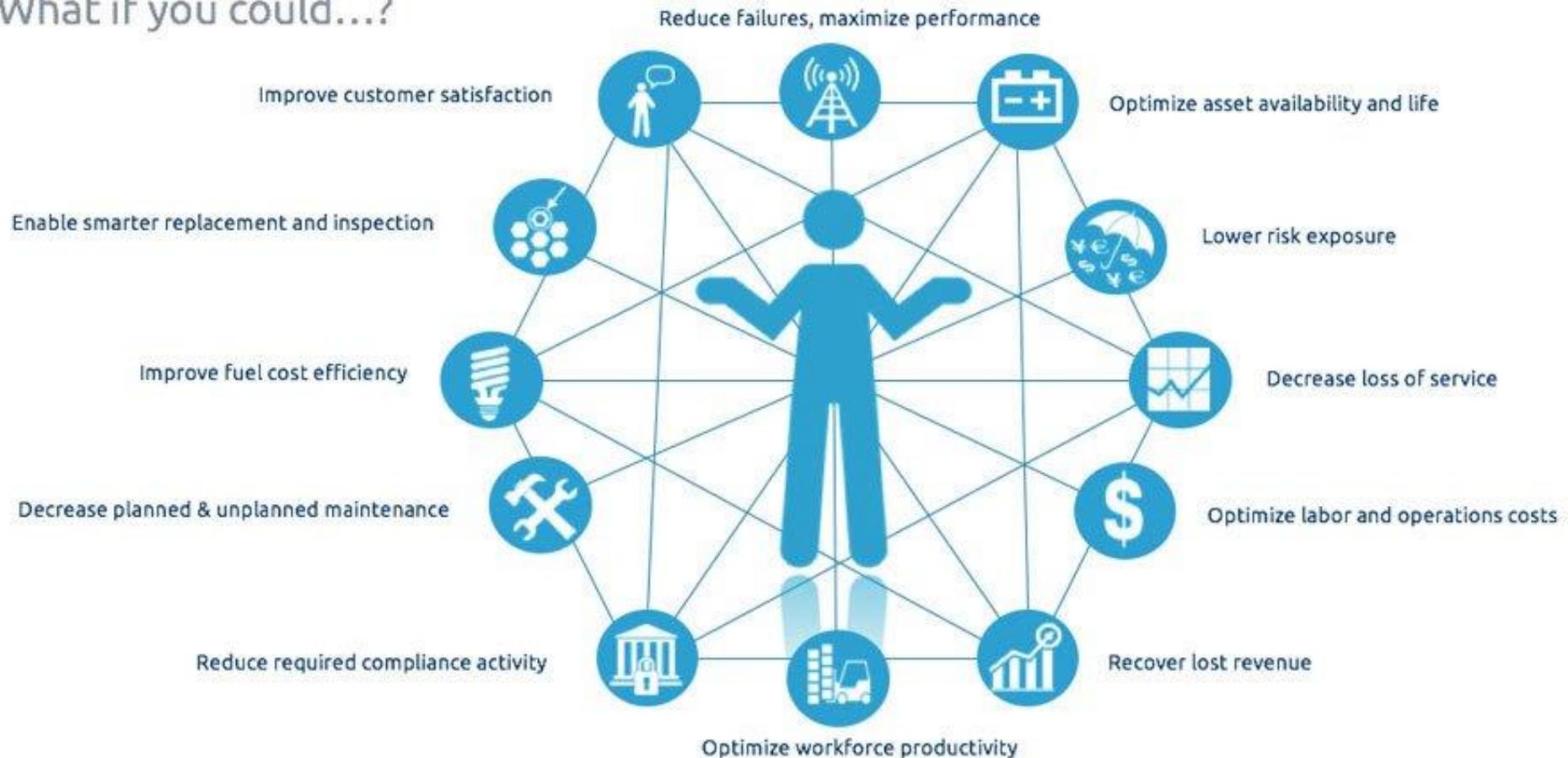
+



# PREDICTIVE MAINTENANCE

## Predictive Maintenance

What if you could...?



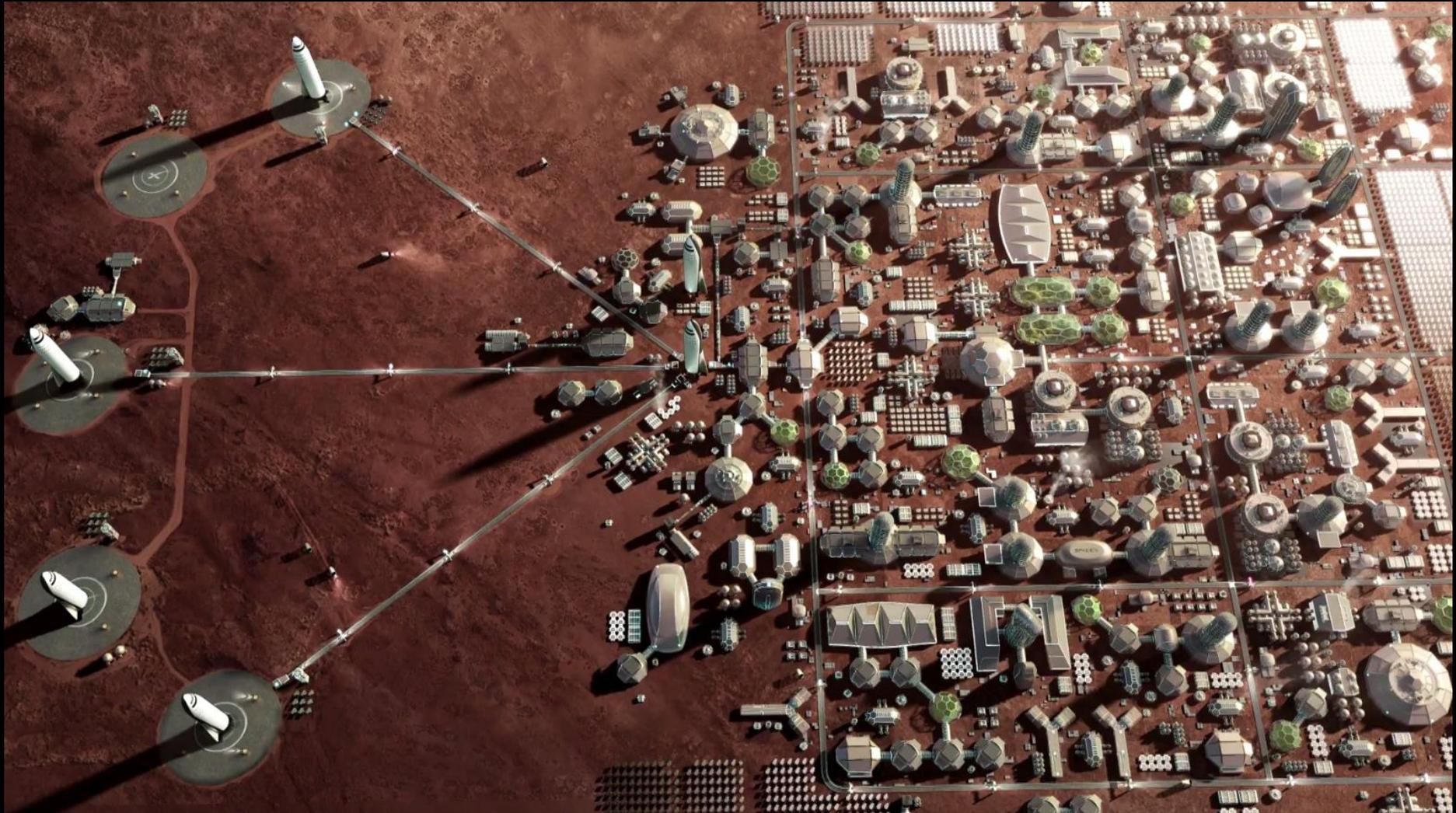
# FUTURE CAREERS

- **Transitionists**      Those who can help make a transition
- **Maximizers**      An ability to maximise processes, situations and opportunities
- **Optimizers**      The skill and persistence to tweak variables until it produces better results
- **Data Contextualist**      Someone who can provide context and interpretation of big data
- **Failure Point Assessors**      Those who with a great amount of detail assess the performance or failure to perform, in order to gain an intimate understanding as to the reason for the failure

# FUTURE CAREERS

- **System Anthropologist** Studying the various aspects of humans within past and present societies as well as within virtual systems and AI
- **3D Material Expert** Someone who are an expert in the field of choosing the correct material to print 3D parts or tools for equipment.
- **Avatar Relationship Managers** People who manages the interaction between technology and humans, especially in the realm of AI

# FUTURE BUILD ENVIRONMENTS



# FUTURE BUILD ENVIRONMENTS



# FUTURE BUILD ENVIRONMENTS



# QUESTIONS

