

TD Tech Data[®]

Next Generation - Data and IOT
IOT Smart Spaces

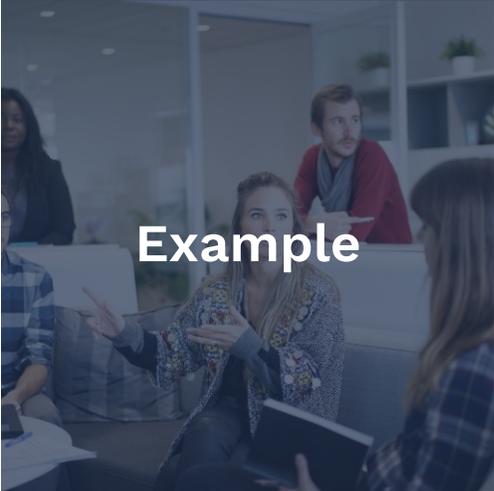
Agenda



Introduction



Smart Spaces



Example



Next Steps

Introduction

Transformation and
IOT Smart Spaces

➤ The industry at a glance



Business models
are **evolving**

By 2025 the Global datasphere is estimated to be over
180 Zettabytes of Data

IDC's Worldwide Global DataSphere Forecast, 2021–2025

73.1 Zettabytes generated by
IoT Connected devices by
2025

IDC Global Datasphere Report 2020

In 2021, AI augmentation will
create **\$2.9 trillion** of
business value

Gartner AI Insight Hub 2019



In 2025, **25%** of global
industrial enterprises will
acquire/ invest in an IIoT
platform company

Gartner IIoT Magic Quadrant 2020

By 2025, **44%** of generated
data will be driven by analytics,
AI and Machine Learning

IDC/Seagate Re-Think Data Report 2020

➤ 2021 - Data driven digital journey



Foundation

Starting the data transformation journey

Ensuring key data components are in place in line with industry practice:

Collect and automate

Store and manage

Visualise



Modernisation

Creating a more integrated data experience within the organisation

Developing an application stack to deliver secure embedded analytics and AI apps



Insight driven

Building an insight driven organisation (IDO)

Embedding analytics, data and AI into the decision making process



Data driven

Extracting maximum value from data across the organisation

Leveraging data to:

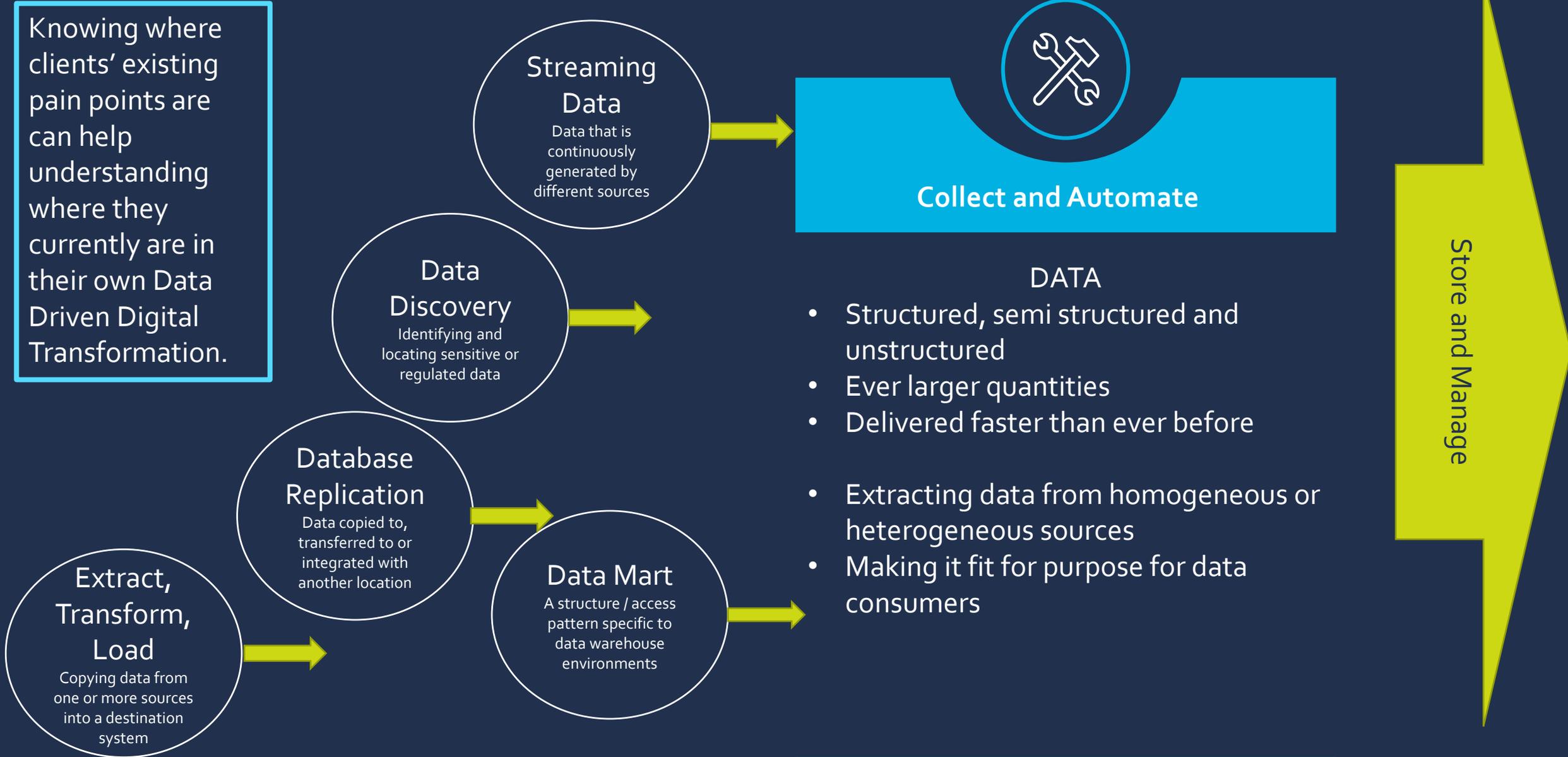
Drive automation

Deliver rich data experiences for the whole organisation

Enable new business models and services



Knowing where clients' existing pain points are can help understanding where they currently are in their own Data Driven Digital Transformation.



Streaming Data

Data that is continuously generated by different sources

Data Discovery

Identifying and locating sensitive or regulated data

Database Replication

Data copied to, transferred to or integrated with another location

Data Mart

A structure / access pattern specific to data warehouse environments



Collect and Automate

DATA

- Structured, semi structured and unstructured
- Ever larger quantities
- Delivered faster than ever before
- Extracting data from homogeneous or heterogeneous sources
- Making it fit for purpose for data consumers

Store and Manage

Capture the opportunity



Working with a **solutions aggregator** will simplify your ability to **deliver a data driven business**

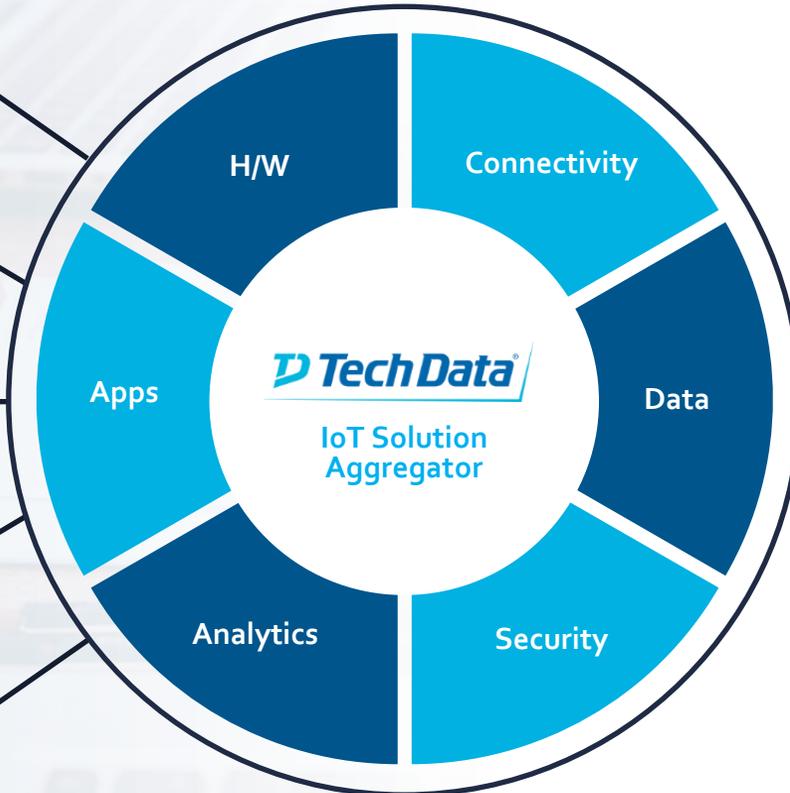


Tech Data is Uniquely Positioned

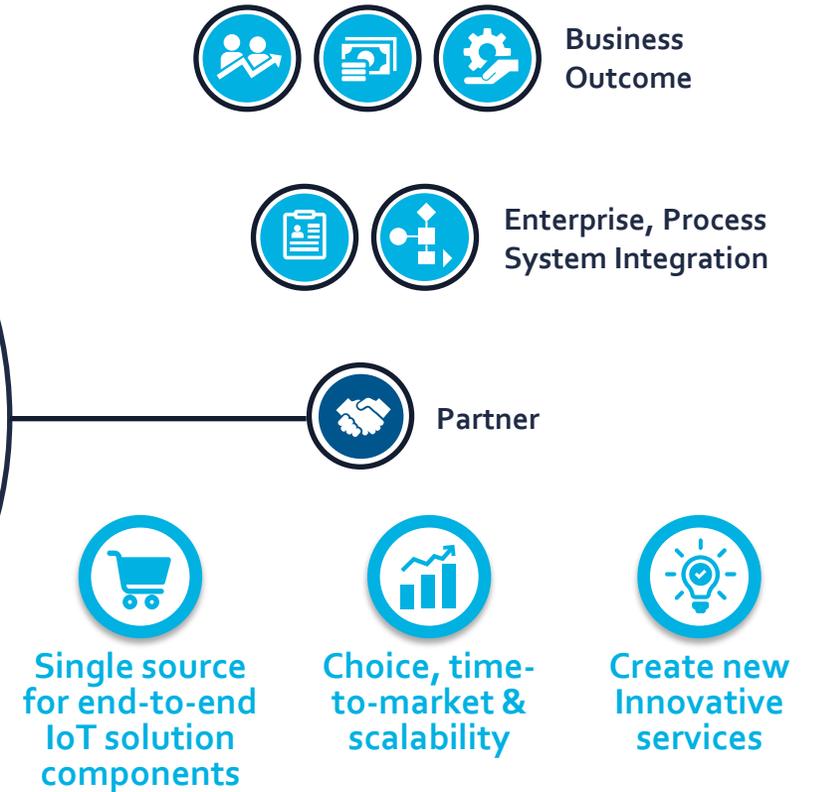


Tech Data - IoT solutions aggregator

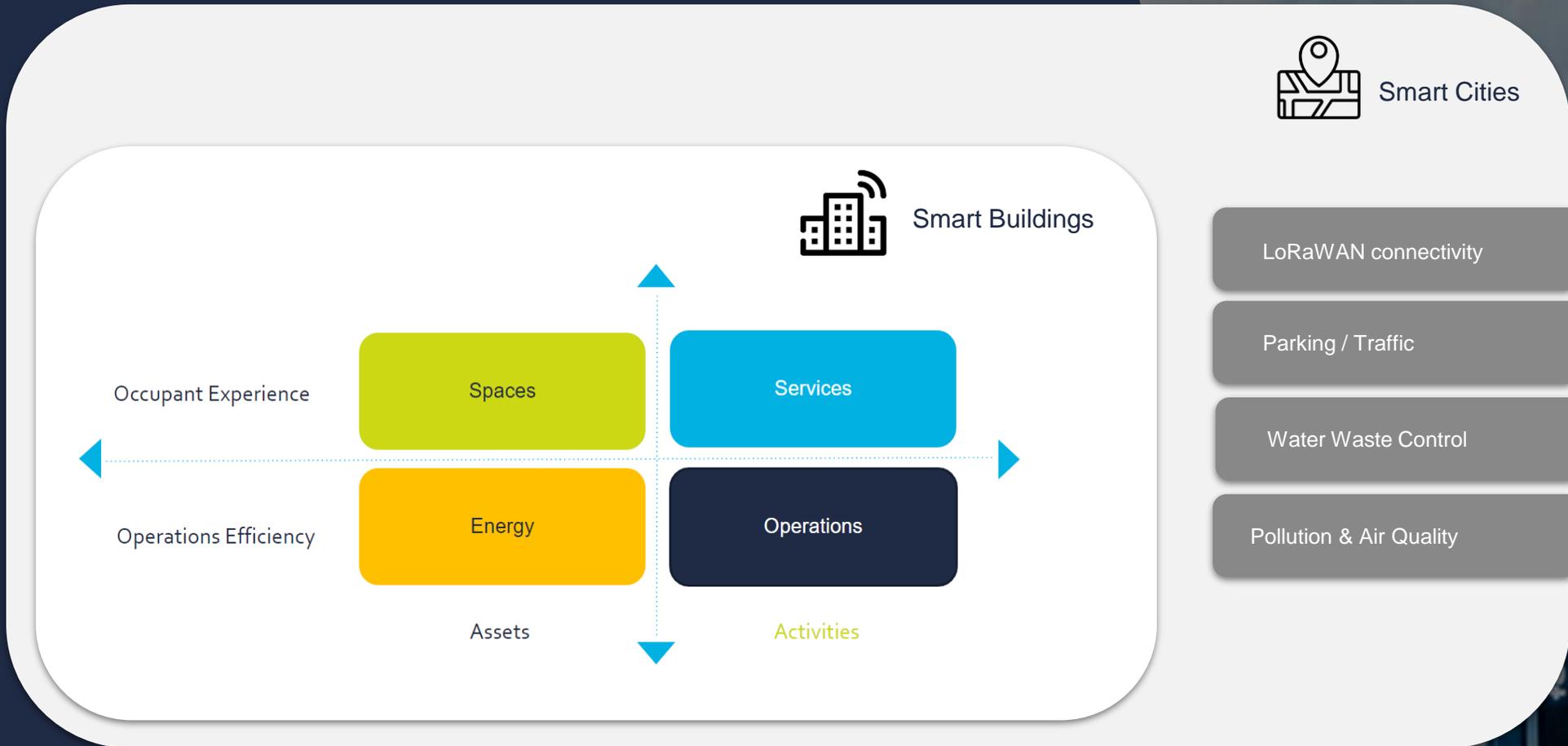
COMPLEX ECOSYSTEM



MADE SIMPLE



Smart Spaces Focus Areas



Spaces

The dimensioning and use of spaces are the cornerstone on which all activity within a building must be developed. For this, it is important that its planning and control are effective. Within the area of spaces, we can differentiate between systems that refer to the planning of the use of spaces and those that focus on measuring the effective use of them.

> Planning

Space planning is an in-depth analysis of how physical space is used in structures. It considers the purpose of spaces and who will use them. Efficient space management must consider the dynamics of work, the patterns within which the activity moves, internal communication and company culture, and must offer solutions in relation to people's needs.

> Measuring occupancy

Obtaining the utilization metrics of a building in real time is one of the challenges that technology has been able to solve in recent times more efficiently. It is calculated by dividing the total number of rooms or space occupied by the total number of rooms or space available, and is the best indicator to know if we are efficiently sizing a building, according to our needs.

> Reserving spaces

The ability to manage space reservations facilitates productivity and efficiency in the use of spaces. There are various technologies that help us to make this request for space in a dynamic and intuitive way for the occupant, which has a positive impact on their level of satisfaction and user experience.



Services

From the point of view of the occupants and users of a building, the services provided within them must be oriented towards comfort, functionality and the improvement of productivity. That is why a good dimensioning of them, as well as automation to improve the user experience are essential in all buildings today. The use cases covered by the technology can be grouped into the following areas:

> Request platform

In order to provide services to the occupants of a building, we must guarantee them sufficient means to carry them out, trying to take advantage of all available channels and improving their automation. In this case, the use of a platform that aggregates all the available services and allows the use of self-service is essential.

> Comfort and safety

In order to provide services to the occupants of a building, we must guarantee them sufficient means to carry them out, trying to take advantage of all available channels and improving their automation. In this case, the use of a platform that aggregates all the available services and allows the use of self-service is essential.

> Other services

There are other peripheral services to the workspace that the occupants consume. These services are varied in nature and can be consumed occasionally but have a direct impact on the experience of the occupant as well.



Operations

Construction operations consist of the activities necessary to operate, maintain, and manage buildings. Therefore, they are the most important activities when optimizing the life cycle of a real estate asset. Poor planning and execution of operations can lead to a high cost in addition to damaging the value of the asset. The use cases covered by the technology can be grouped into the following areas:

> Focus on Occupants

When we talk about operations focused on occupant services, we are talking about all those activities related to the asset but that have a direct impact on the occupants. The main difference with respect to the services requested by the occupants is that the execution of these activities are carried out by the operations personnel.

> Focus on Assets

The operations focused on the asset have the main mission of carrying out all the modifications, repairs and maintenance that guarantee that the asset is in perfect condition to carry out the activities.

The most popular of these operations is maintenance. In recent years it has gone from being corrective to preventive and is currently maturing towards predictive models.



EVERYANGLE



Energy

Buildings encompass a diverse set of end-use activities, requiring different implications of energy use. Heating, cooling and lighting of spaces, etc. which together account for most of the energy use of buildings and which depend not only on the energy efficiency of temperature control and lighting systems, but how we are managing the building as a whole, including its occupants.

These days, sustainability goals and even COVID-19 safety precautions are becoming equally important to (if not more than) lowering utility bills.

There are two main areas:

Real Time Control

We can act and adapt energy consumption to the extent that we have a realistic and real-time vision of their cost. To give visibility to this information, we have different technologies that allow us to extract the data, thus facilitating its aggregation made available to decision-makers.

Simulation

The next step, once we know the energy expenditure in real time, is to apply all the knowledge we have oriented to the prediction of patterns that allow anticipating energy consumption, thus simulating realistic scenarios that allow us to establish actions that optimize consumption.



Smart Cities

Modern urbanization poses important challenges to the public sector and city regulators.

Through 4.0 technology we can offer solutions that range from the control of mobility aspects (traffic, parking) down to the real time monitoring of air quality and water waste.

LoRa connectivity is the underlying framework that can make possible to collect and unify important indicators over wide urban distances, that support regulators decision making and sustainability planning.

ADVANTECH

 iaconnects

 Azure

 TechData

Smart Spaces Main Vendors Map

Click on each logo to view solutions details

Spaces, Services & Occupants



Occupancy Tracking & Space Optimization,

> By IR Technology



> By Computer Vision



Space Reservation



Air Quality



Assets & Energy Management



Assets Health

> Functional levers



> Water quality (bacterial safety)



> Asset tracking



Energy Metering



City Management



Smart City & Environment Management

> Pollution control



> Parking Systems



> Water Waste control



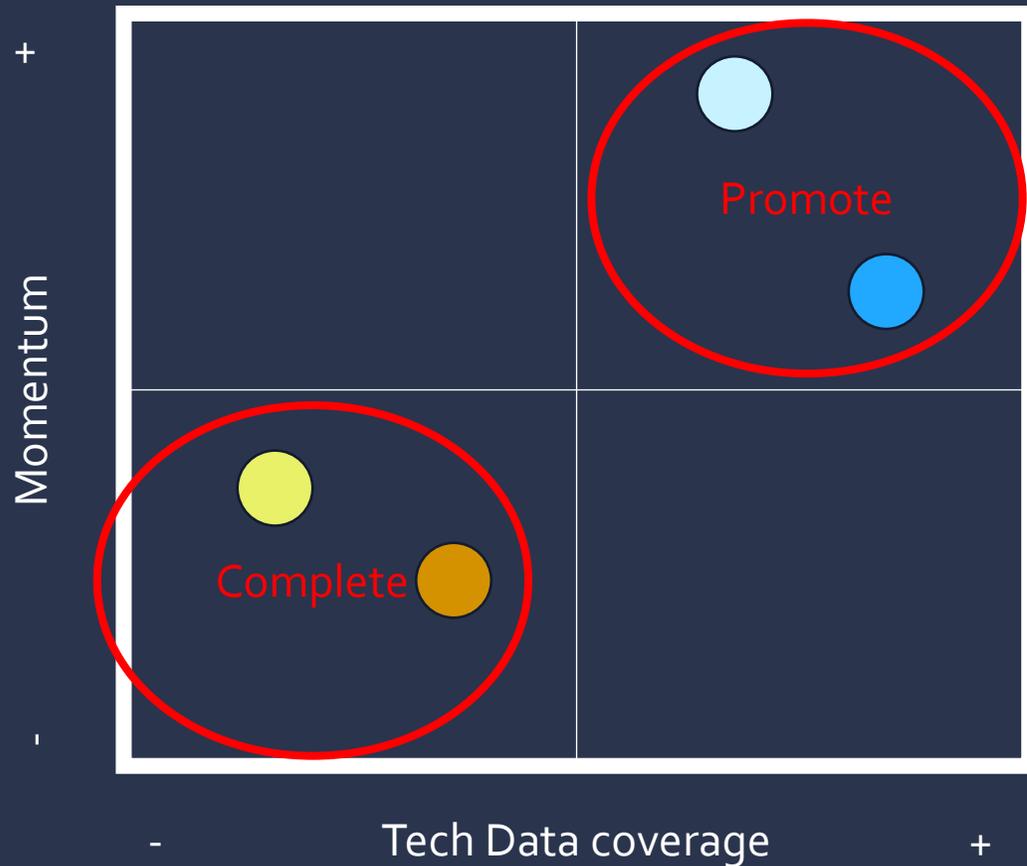


An example of Smart
Spaces?

SAUTER Smart Spaces -
YouTube

Market Trends

There is a new movement in the Market:



Top areas (in order) on Smart Spaces this year (IDC, Gartner, PWC):

- 1. Occupant Experience (Services)
- 2. Space planning and manage
- 3. Energy efficiency
- 4. Operations and maintenance

Market trends: Actions on solutions

Area	Use Case	Status	Vendors	Focus Solutions	
Spaces	Space planning/Space Management	Green	IOffice, Autodesk, IBM	IOffice	Promote
	Desk Occupancy	Green	IACs, Ergosense, PointGrab	Ergosense	
	Meeting rooms/Building Occupancy	Green	IACs, Ergosense, PointGrab, Axis, EveryAngle	Ergosense	
	Spaces prediction/Simulation	Green	IBM, MSFT	MSFT	
	Digital Signage	Green	Maverick	Maverick	
Services	Services portfolio	Green	IOffice, IBM	IOffice	
	Meeting rooms/Spaces reservation	Green	IOffice, Teem, Maverick	IOffice	
	Parking	Yellow	IACs	IACs	
	Security monitor	Green	EveryAngle	EveryAngle	
	Wayfinding	Green	HPE	HPE	
	Content engagement	Green	Channel tools	Channel tools	
	Services App	Green	IOffice, Ergosense	Ergosense	
Operations	Asset Management and Maintenance	Yellow	IBM	IBM	Complete
	Move Management	Green	IOffice	IOffice	
	Air Quality Monitor	Green	IACs, Ergosense	Ergosense	
	Asset Inventory	Yellow	Keonn, Secufy	Keonn	
	Gardening	Red			
	Cleaning / waste management	Red			
	Inventory Management	Yellow	IOffice	IOffice	
	Prediction	Green	Cloudera, IBM	Cloudera	
Energy	Energy Management	Green	Advantech, Episensor, Tyrrel, IACs	Tyrrel	
	Energy Building	Yellow	IBM	IBM	
	Energy prediction	Green	Cloudera, IBM	Cloudera	
	Energy platform	Red			
	Energy planning	Red			
	Lighting Management	Red			

A person is holding a tablet computer. The background is a dark, semi-transparent overlay featuring a world map with a network of lines and nodes connecting various points across the globe. The overall aesthetic is modern and technological, with a color palette of blue, yellow, and grey.

Smart Spaces **in real world**

VISION

Customer Challenges

A chain of hardware retail stores wanted to identify and improve their entrance to purchase conversion rate.

Features and Benefits

Gives you a breakdown of every customer visiting in-store, by gender, age and generation

Tells you where customers went in store and how long they spent there

Integrates with POS solutions, to tell you who buys what

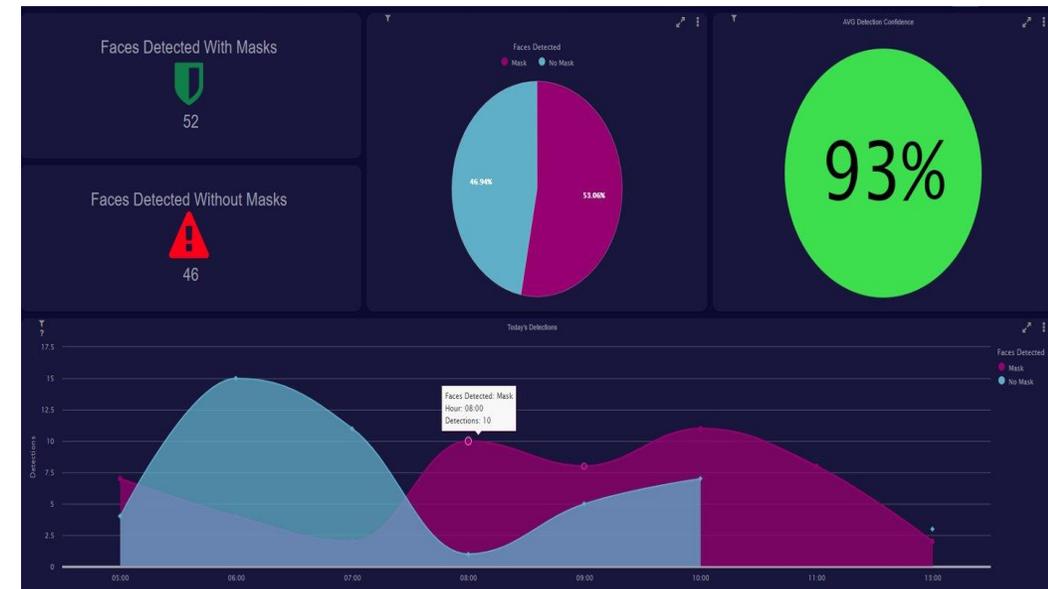
Generates live alerts when store performance looks set to miss targets or exceed them

Equips you with easy to use dashboards, to understand store performance across multiple sites

Products Included

Cisco Meraki MV Camera, Cisco Meraki Wireless Access Point, EveryAngle Advanced Footfall License

EVERYANGLE



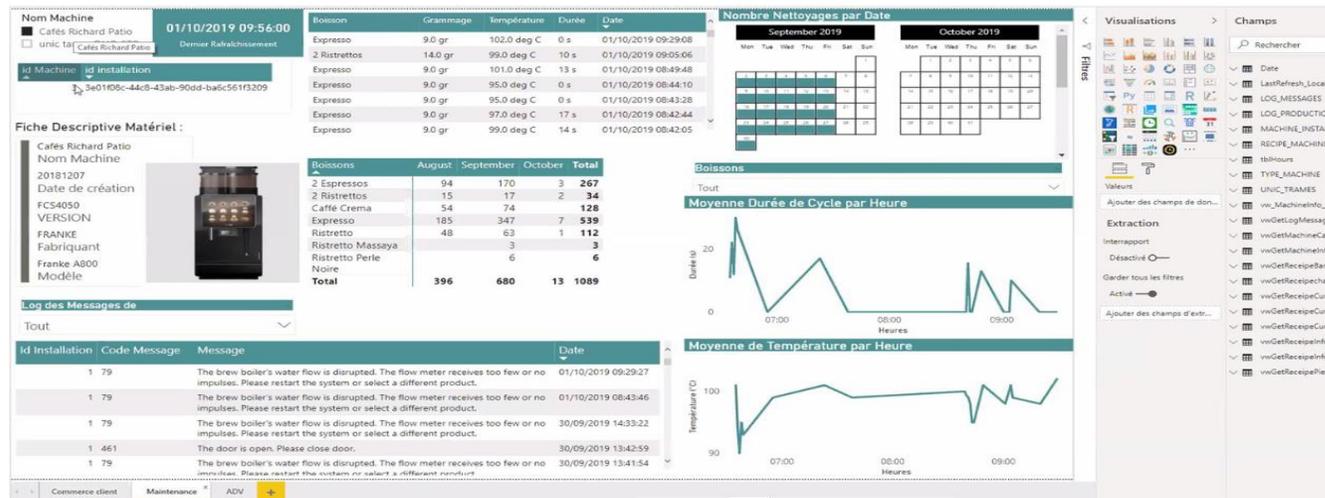
Track and Trace

Remote monitoring of the coffee machine. 40 000 coffee machine rent & managed by Espresso services)

- Know the usage of the coffee machine on customer site.
- Be alerted in case of failure in order to better serve customer and improve quality of services
- Near real time overview of their best customers –do more business, adapt prices.

Want to develop new services by adding a remote app available to their customer

Power BI Dashboards



TROLLBEADS
THE ORIGINAL SINCE 1976

The first day

2 shop assistants

28 calls within the first hour

48 calls total

1st sale during the 1st call

full ROI within first two hours of going live

3 customers attempted connection the night before launch, all three left their email for a PingBack

Partner Challenges



Differentiation & Specialization



Industry Credibility



Access to Expertise



New Business Models



Mitigate Risk



Gain Market Share

TECH DATA'S
VALUE
STACK
TAILORED
FOR
YOU

Value Enablement & Creation



Practice
Builder



Vertical
Expertise &
Programs



Demand
Generation

Value Delivery



Cloud
Management
Platform



Solution
Factory



Technical
Support &
Services

Next Steps



Engage with our
consultants

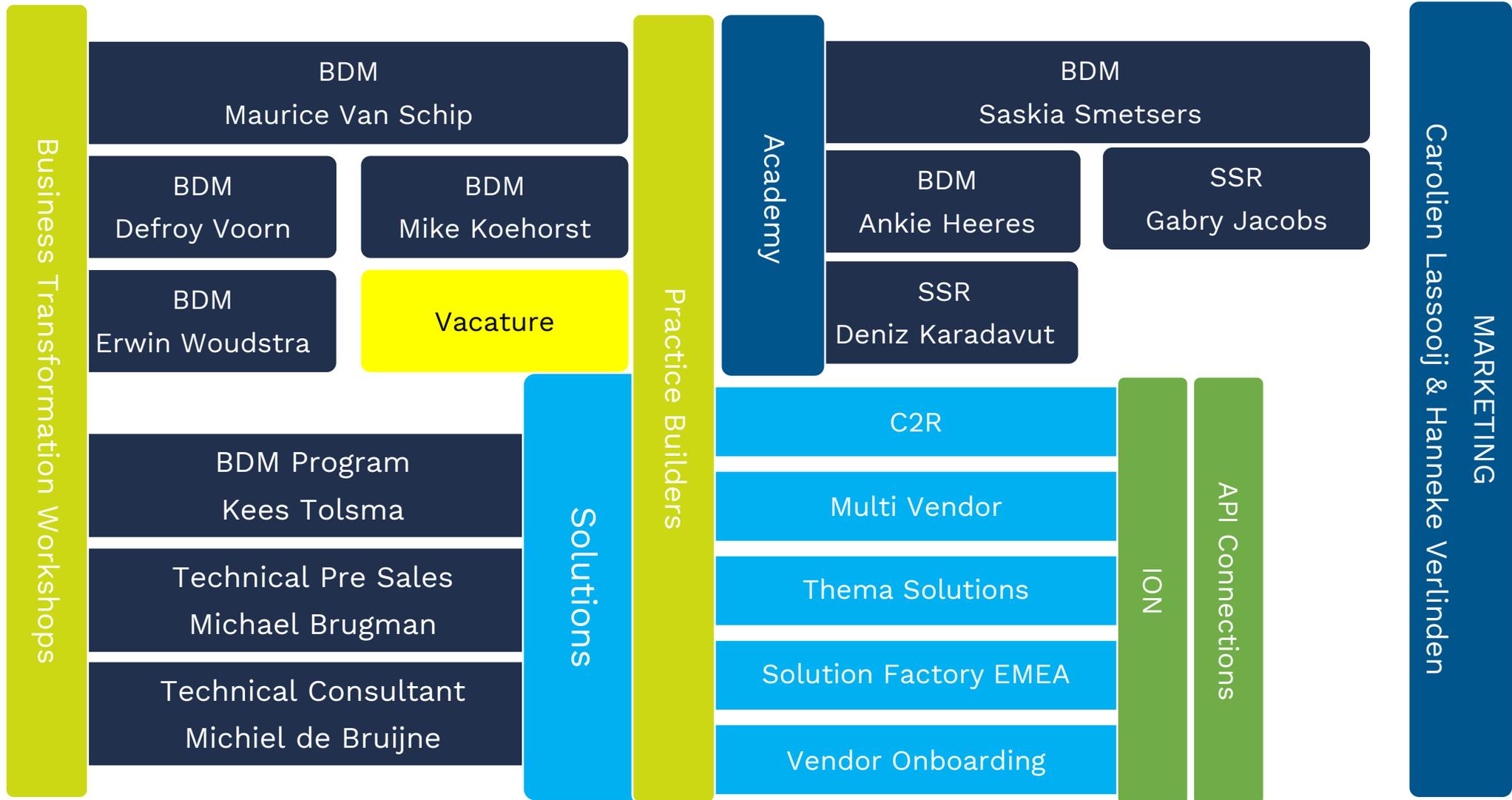


Empower through
practice builder



Expand your
capabilities

Team | Next Gen



Next steps



Sign up

Assessment Full or Express
Afspraak met BDM Next Gen



Data sessions

Cloudera 28 Oktober
IOT Smart Spaces Retail 19 November



Site

TD Cloud: tdcloud.nl
TD Academy: academy.techdata.com

To access Assessment

www.techdatatransformation.eu

Are you ready for...?

Next Generation Data and IOT