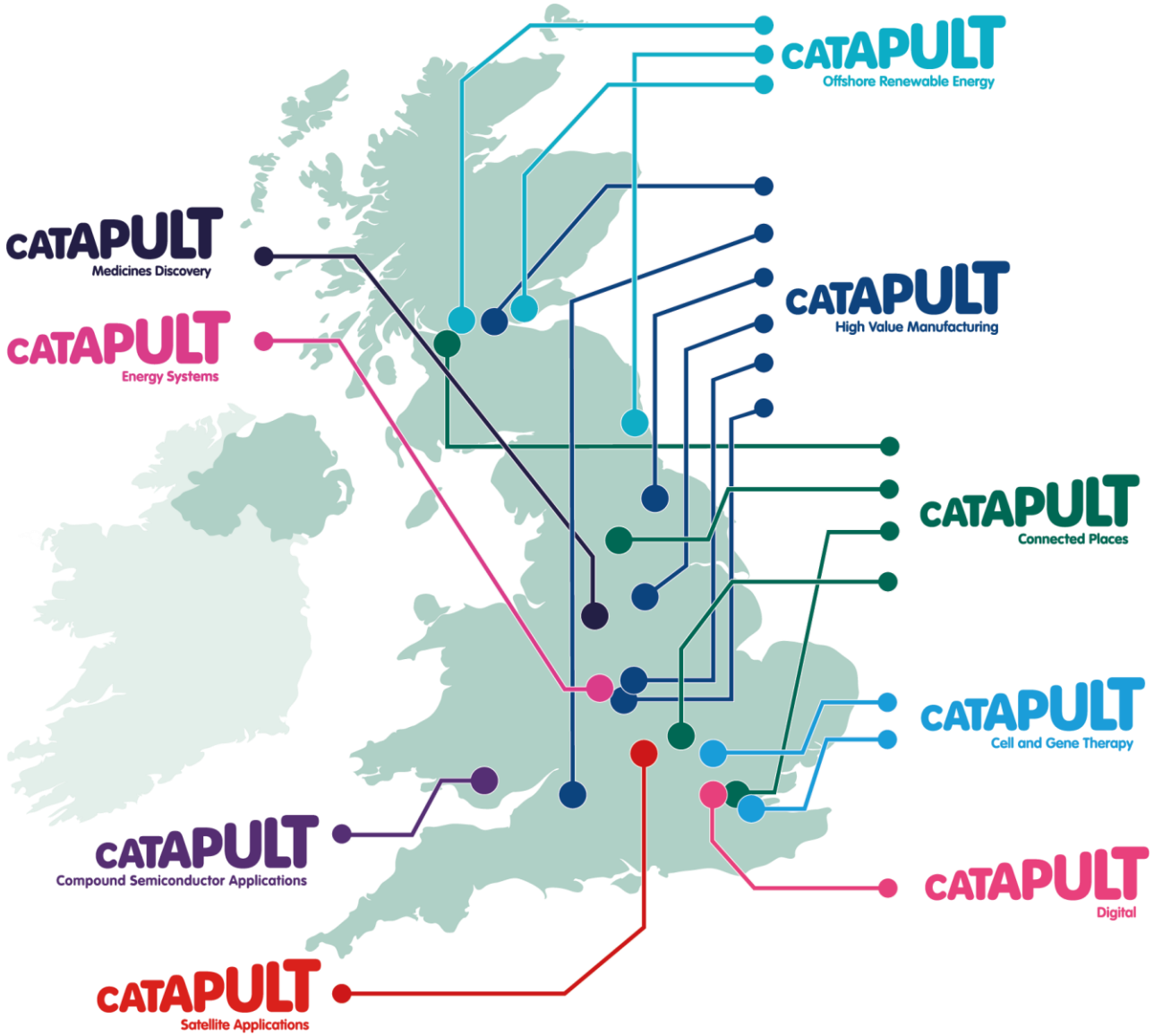
CATAPULT
Connected Places

Who Are we

Steve Quantick
Strategic Business Development Director – Connected Places Catapult

Catapults – a force for innovation and growth



CATAPULT
Connected Places

9

Innovation Centres across the UK

A network of world leading centres designed to transform and accelerate the UKs capability for innovation and future economic growth.

The Connected Places Catapult role

To drive jobs and growth the Connected Places Catapult:

- **Increases the supply of proven products and services that meet market demand**
  by helping companies to commercialize innovation through demonstration, testing and market exposure.
- **Identifies new areas for market making and disruption**
  by stimulating richer engagement between academics, SMEs and businesses.
- **Boosts demand for innovation from intelligent customers**
  by providing joined up support to public authorities and industry

Is part of

- **A network of 9 world leading Independent and neutral Catapult centres**
  designed to transform and accelerate the UKs capability for innovation and future economic growth.

CATAPULT
Connected Places

IM ACCELERATOR

SUPPORTING START-UPS TO DRIVE INNOVATION

ACCELERATOR

Powered by

Supported by

July-December 2019 Cohort

liftshare travel happy

parknav FOR BUSINESS

alchera TECHNOLOGIES

grid™ eventually everything connects

briteyellow

OPENCAPACITY

PROTEAN

Xtelligent

podaris

minicabit The UK's largest cab comparison service

Tomorrow's Journey

Level crossings

Download the guide, understand the warnings

There are many different types of level crossings and protection measures in place across Britain's rail network. Do please plan ahead, be prepared and pay extra care and attention on and around level crossings.

For more information about using them safely and to understand the different warning signs and signals, download our free level crossings user guide.

It's available in accessible and BSL formats at networkrail.co.uk/levelcrossings

Signly

For BSL and audio content, download 'Signly Network Rail' for free from the Apple App Store or Google Play and point your device at this leaflet.

CALVIUM

Calvium is a leading digital technology agency combining expertise in experience design, software engineering and mobile innovation.

Richard Hull, Executive Chairman
richard@calvium.com

People, place and technology

Calvium are recognised as specialists in designing and delivering stellar location-based digital solutions for a wealth of leading clients.

CALVIUM

Our clients include

BATTERSEA POWER STATION

theguardian

Bristol Airport

BRISTOL CITY COUNCIL

CITY OF LONDON

TOWER BRIDGE 1894

UNIVERSITY OF EXETER

National Trust

YODEL

Historic Royal Palaces

National Theatre

CALVIUM

NavSta

Helping passengers with invisible impairments travel independently through train stations

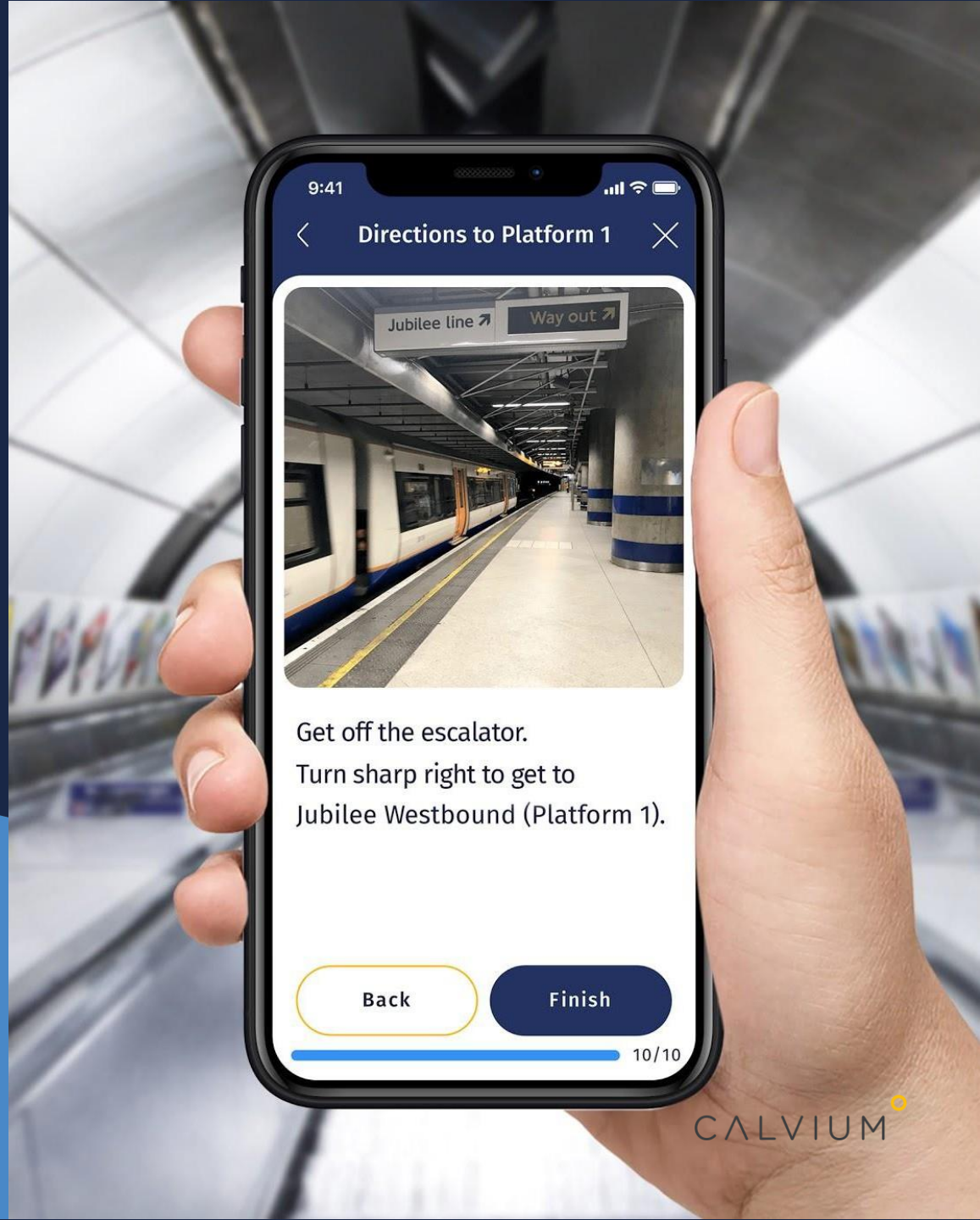
Partners

CATAPULT Connected Places

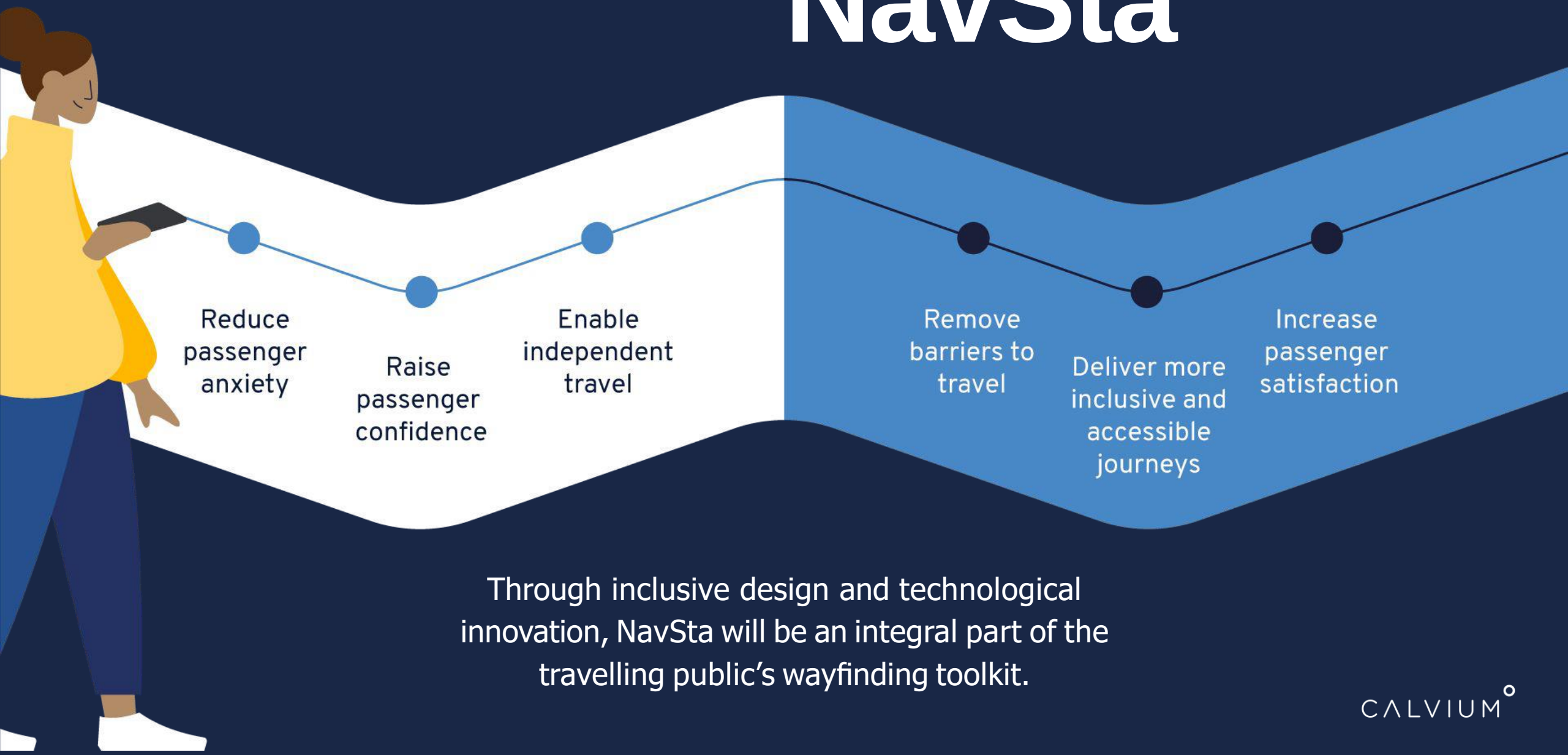
open.

Transport for London

Innovate UK
Demonstrating Tomorrow's Stations



NavSta



Through inclusive design and technological innovation, NavSta will be an integral part of the travelling public's wayfinding toolkit.

CALVIUM

CITY MAAS
MOBILITY REDEFINED
ASSIST

Rail Delivery Group

Microsoft

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

DIAL-A-RIDE

Atos

Rene Perkins – Co-Founder & CEO
Email: rene@CityMaaS.io
Tel: 07875507126
Skype: rene.yuan
Website: CityMaaS.io

13 mil
£250 bn

UK/World population registered as disabled

Data Sharing

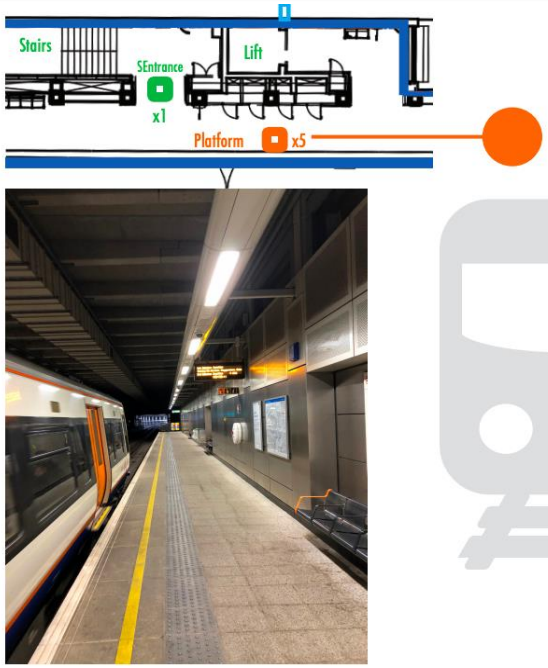
Real Time Accessibility info

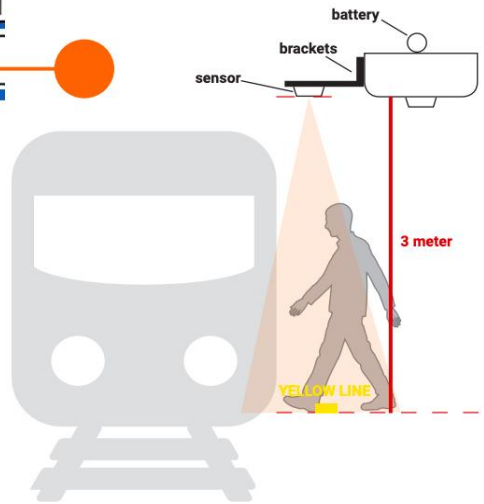
Pilot Program

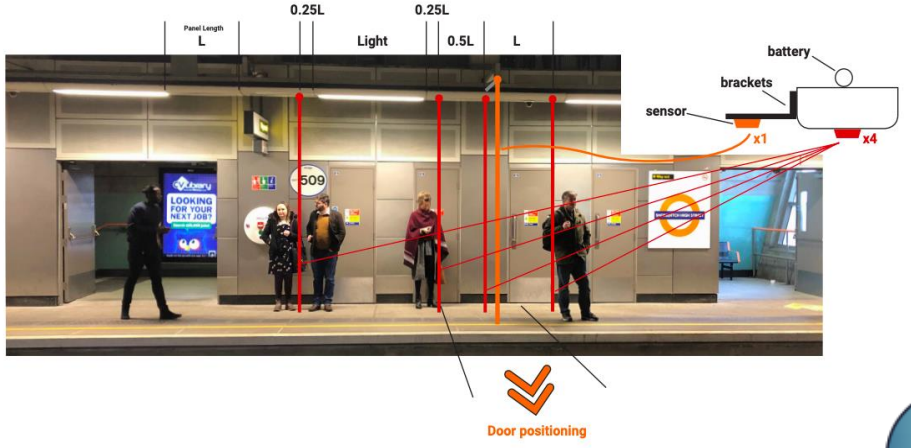
Customers - Inclusion Satisfaction

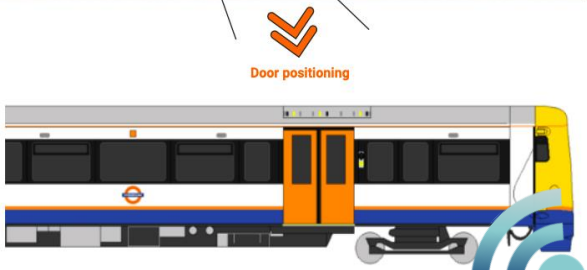
BlockDox Patented Technology on Trains, Platforms & Stations

Real-time passenger footfall analytics

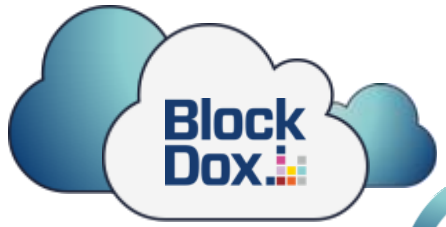








Data Analytics to Help Shape, Manage & Deliver Smarter Stations

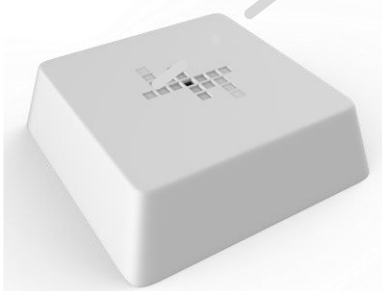


Intelligence Cloud

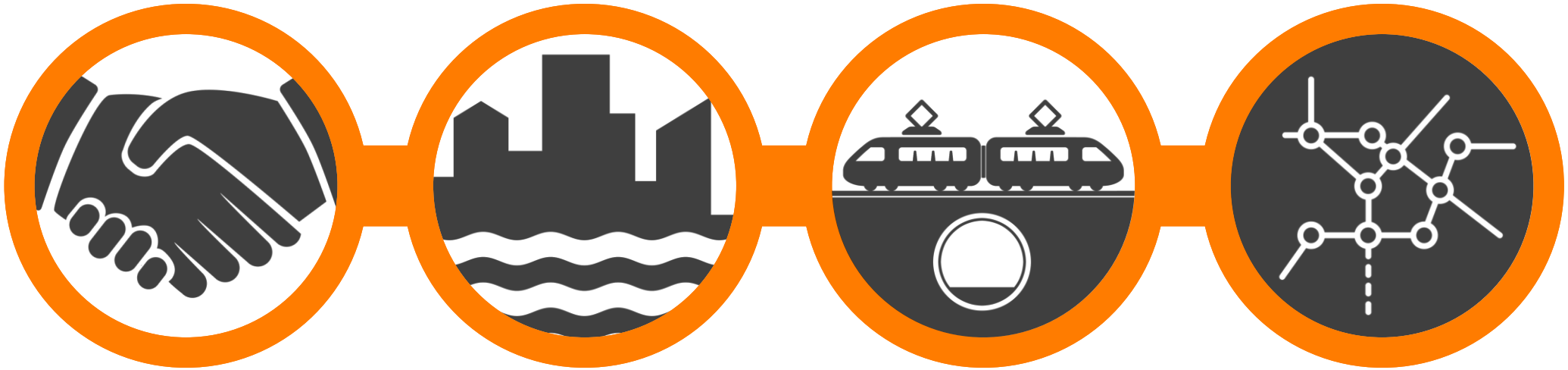
API

- Optimise boarding & alighting times
- Manage disruption & capacity
- Plan future station design & timetabling
- Understand passenger numbers
- Mitigate & manage risks
- Manage revenue protection

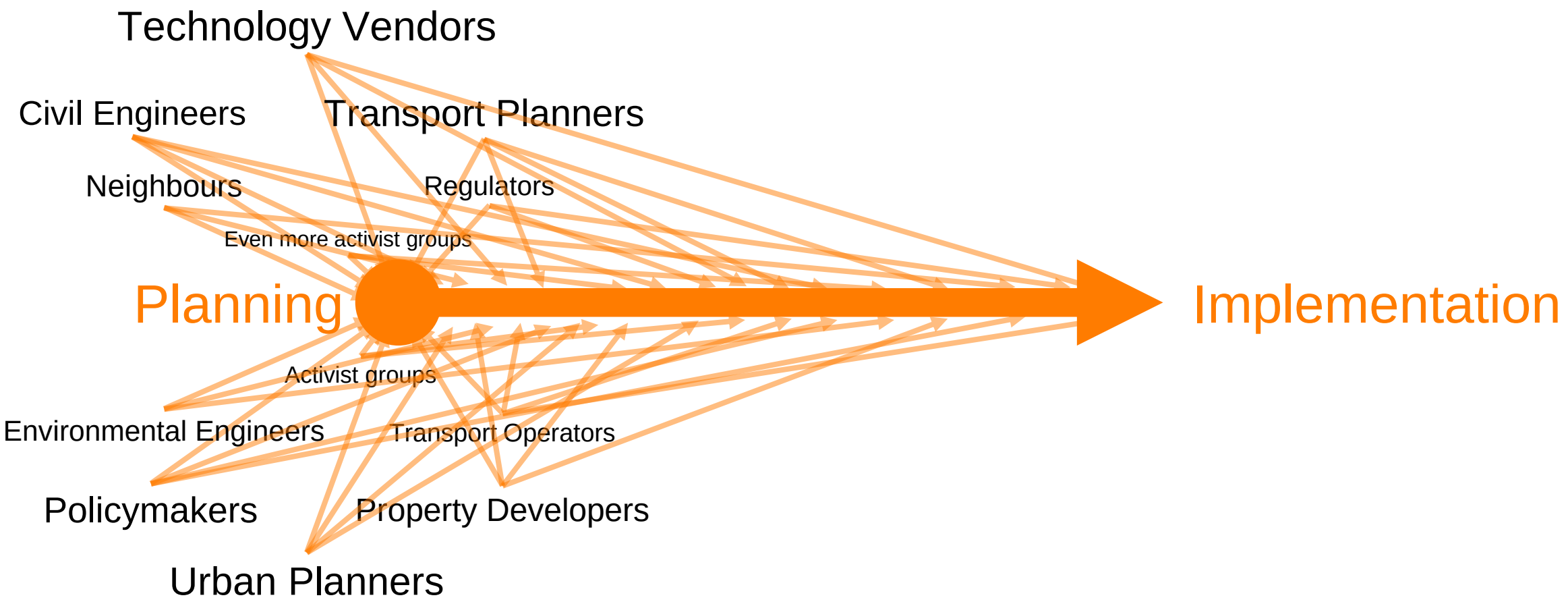
GDPR Compliant!!



podaris



Collaborative Urban Infrastructure Planning


Technology Vendors
Civil Engineers
Transport Planners
Neighbours
Regulators
Even more activist groups
Planning
Implementation
Activist groups
Environmental Engineers
Transport Operators
Policymakers
Property Developers
Urban Planners

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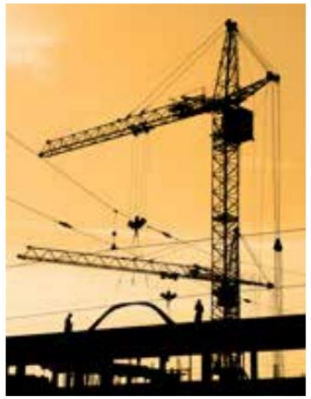
McKinsey Global Institute
McKinsey Infrastructure Practice



January 2013

Infrastructure productivity: How to save $1 trillion a year

S1 TO START
S1 TO START
S1 TO START
S1 TO START

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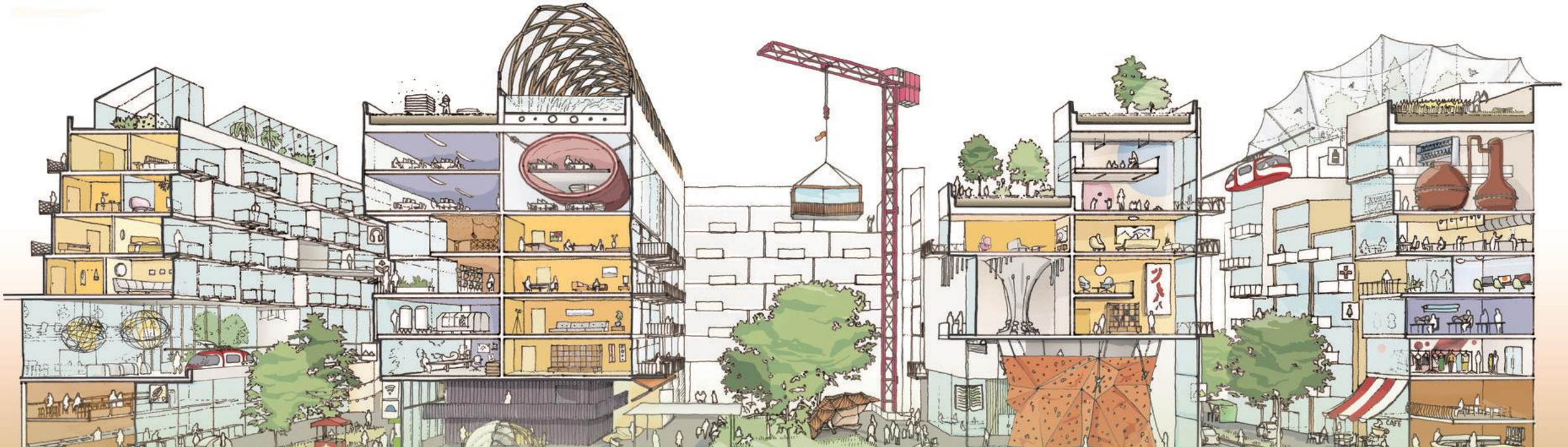
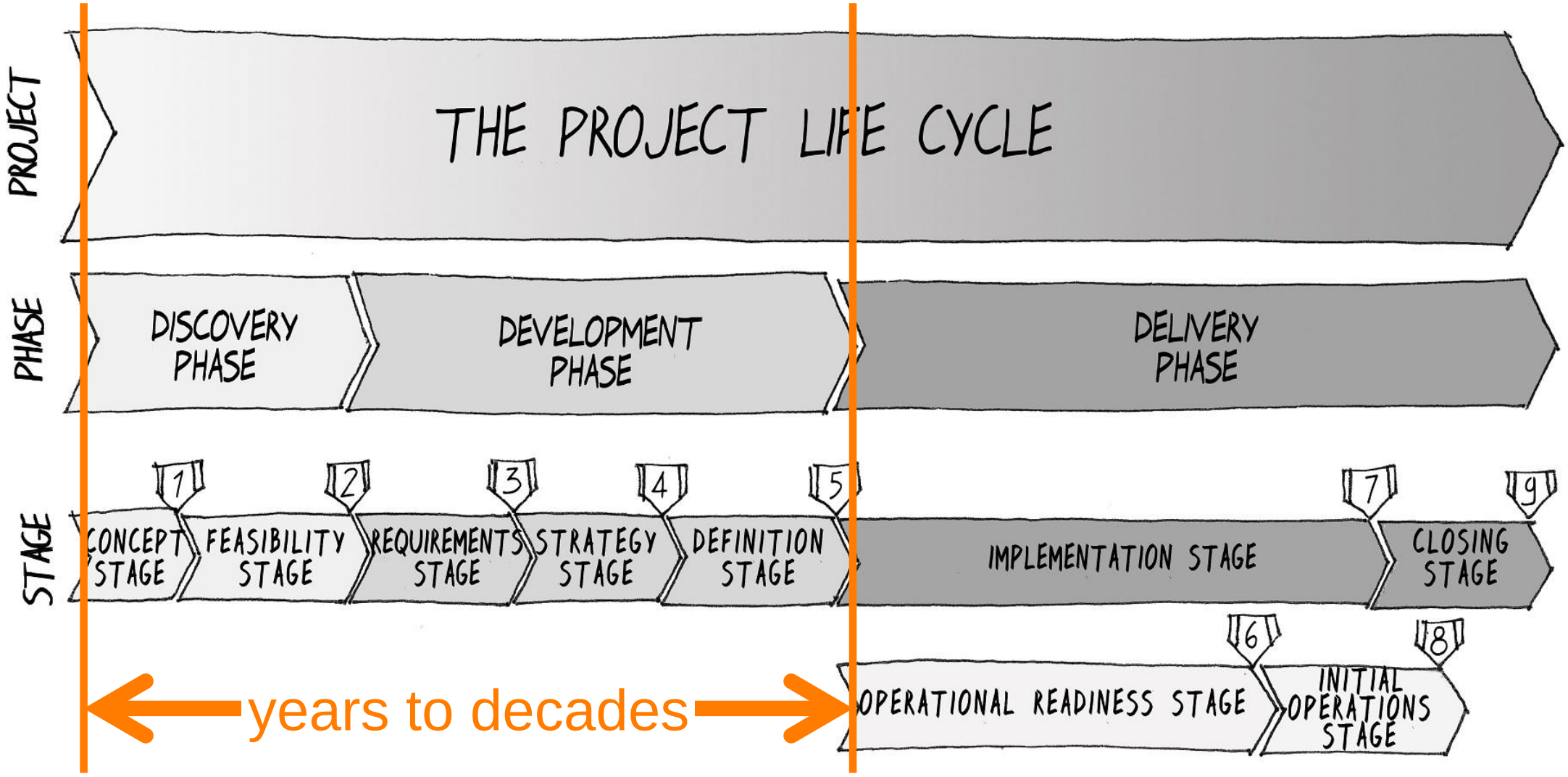
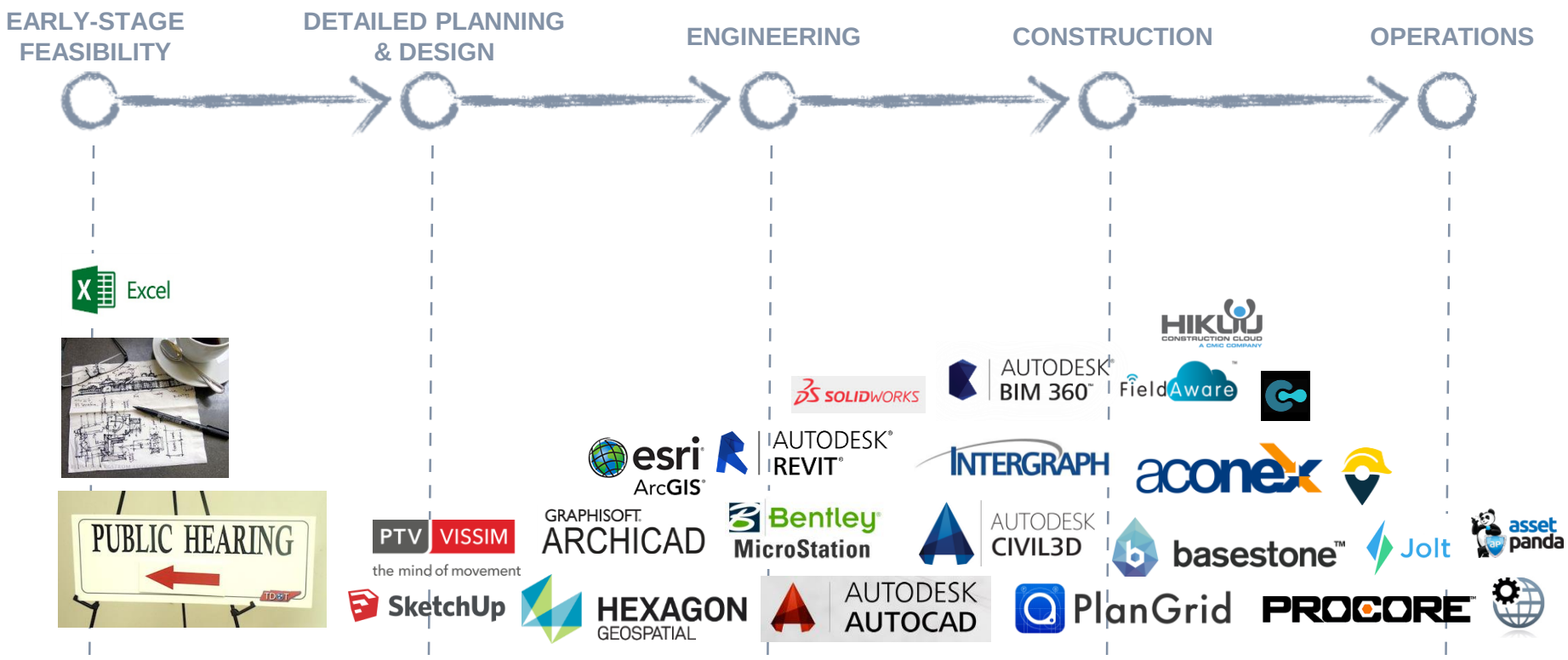
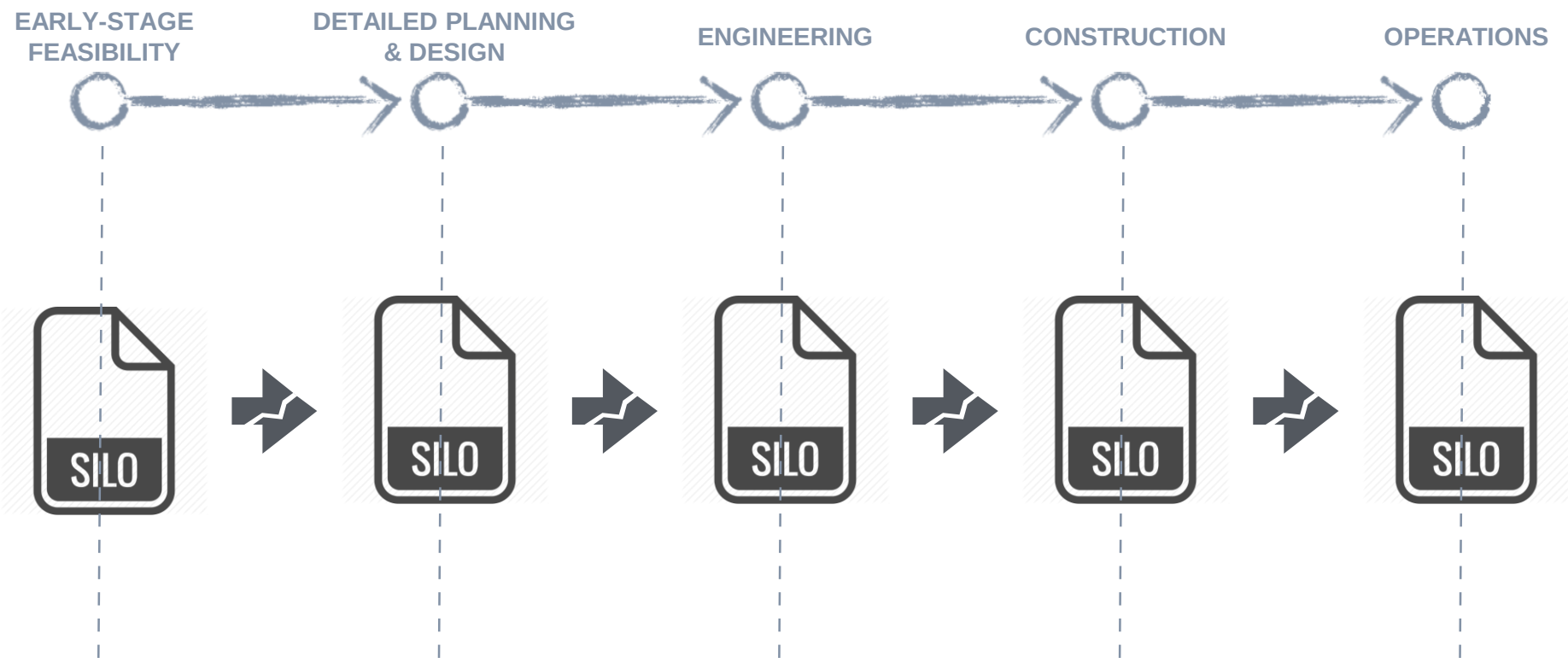
HYPERLOOP




PROJECT
THE PROJECT LIFE CYCLE
PHASE
DISCOVERY PHASE
DEVELOPMENT PHASE
DELIVERY PHASE
STAGE
1
2
3
4
5
7
9
CONCEPT STAGE
FEASIBILITY STAGE
REQUIREMENTS STAGE
STRATEGY STAGE
DEFINITION STAGE
IMPLEMENTATION STAGE
CLOSING STAGE
6
8
OPERATIONAL READINESS STAGE
INITIAL OPERATIONS STAGE
years to decades


EARLY-STAGE FEASIBILITY
DETAILED PLANNING & DESIGN
ENGINEERING
CONSTRUCTION
OPERATIONS
Excel
PUBLIC HEARING
PTV VISSIM
the mind of movement
SketchUp
esri ArcGIS
GRAPHISOFT ARCHICAD
HEXAGON GEOSPATIAL
SOLIDWORKS
AUTODESK REVIT
Bentley MicroStation
AUTODESK AUTOCAD
AUTODESK BIM 360
AUTODESK CIVIL3D
INTERGRAPH
HIKUU CONSTRUCTION CLOUD
FieldAware
aconex
basestone
Jolt
asset panda
PlanGrid
PROCORE


EARLY-STAGE FEASIBILITY
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CONSTRUCTION
OPERATIONS
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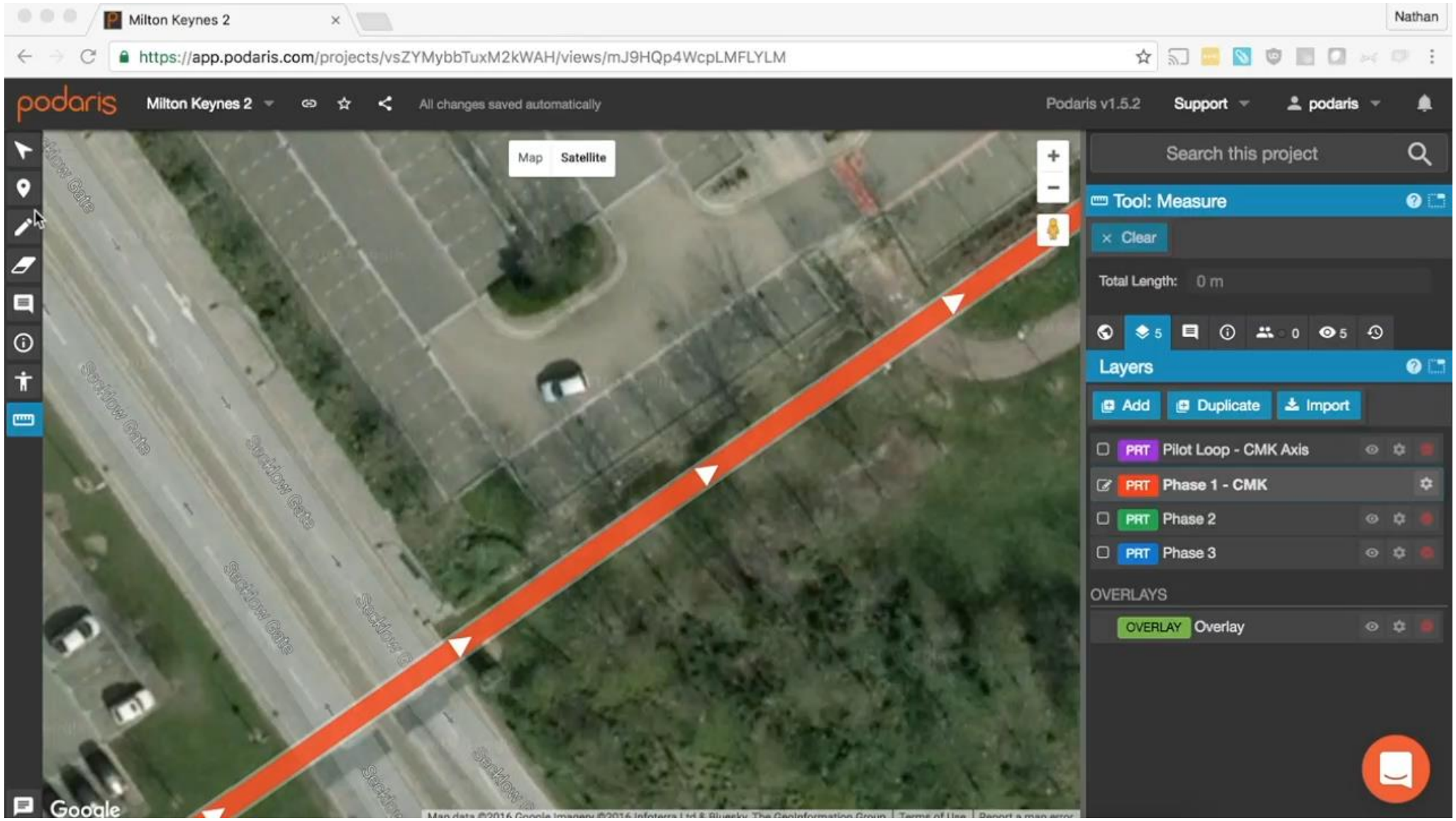


Planning / Engineering / Analysis / Engagement

Stakeholders

Visualisation & Engagement

Planning & Management

AUTODESK® REVIT®

GRAPHISOFT® ARCHICAD

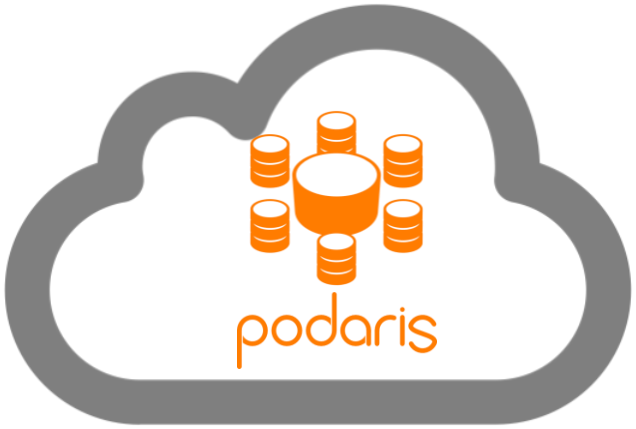
AUTODESK CIVIL3D

esri ArcGIS®

HEXAGON GEOSPATIAL

3rd-Party Desktop

APIs



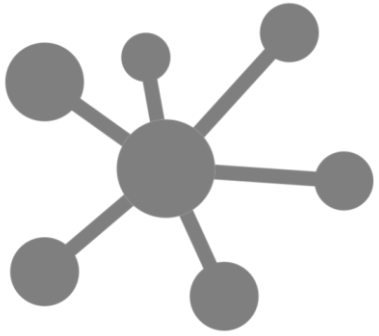
Parametric Models

APIs

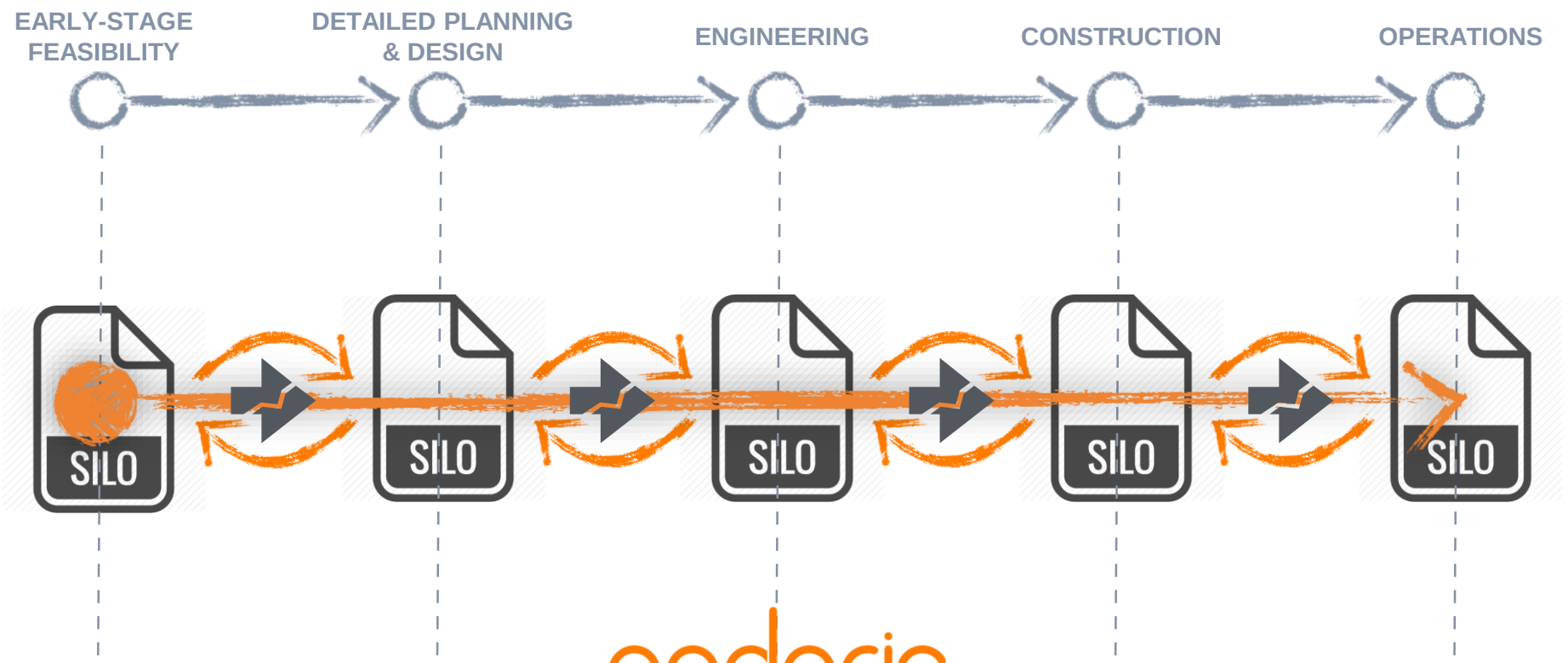
Immense
Enabling Intelligent Mobility

URBAN INTELLIGENCE®
Informing Spatial Decisions

LandInsight



3rd-Party Cloud



podaris

making transport & development planning more

accurate • agile • inclusive • cost-effective

The team

Nathan Koren (UK)
Founder / CEO

BsD Architecture (ASU, 2001)
MBA (Oxford, 2008)

3X co-founder

Expert in transport innovation

Devon Barrett (UK)
Co-founder / CTO

Ben Woodhouse (UK)
Technical Writer

Felipe Sabino (BR)
GIS Developer

podaris

Thank you!

Devon@Podaris.com

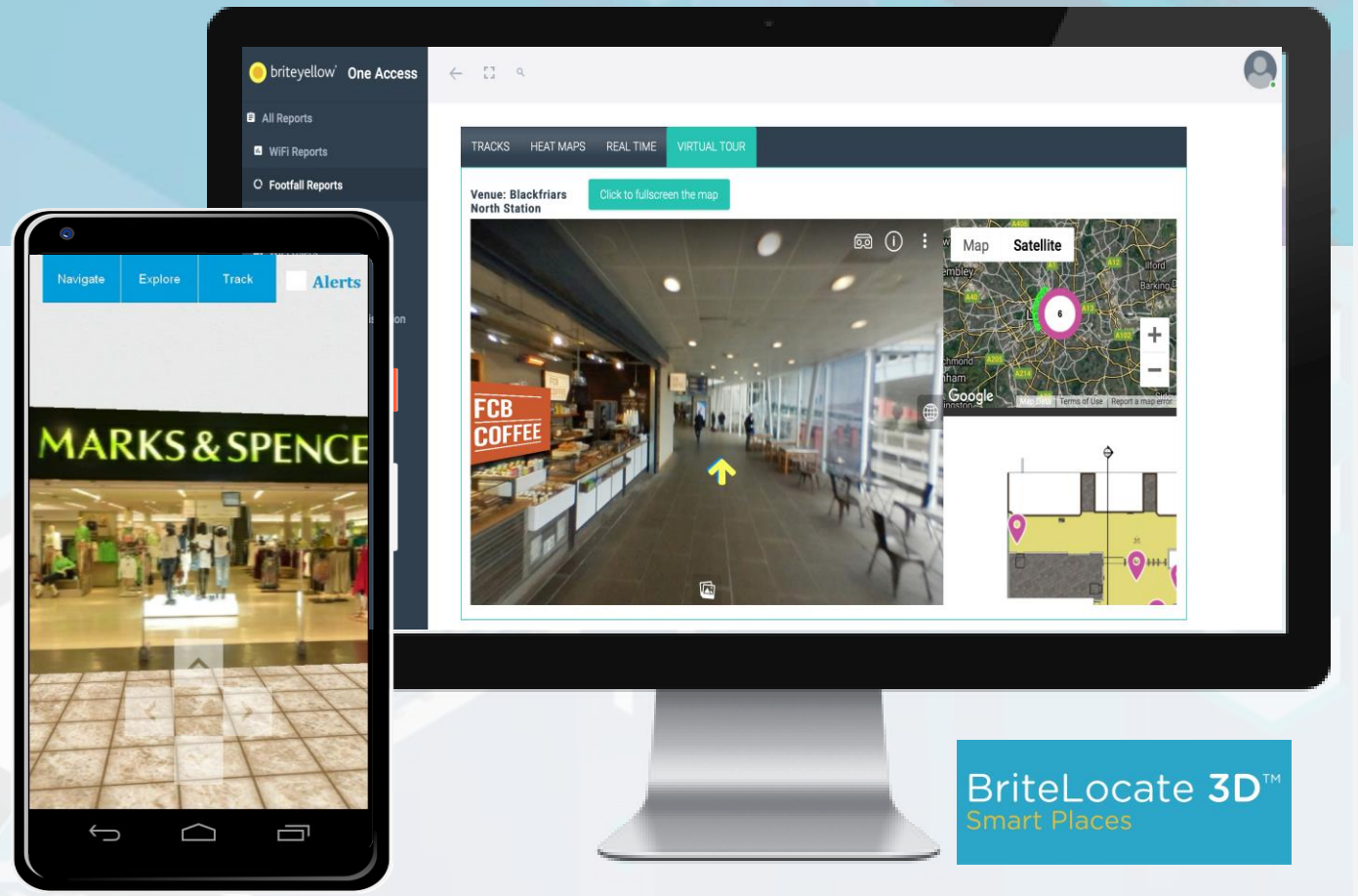
briteyellow®

MIXED REALITY INDOOR MAPPING TO ENABLE SMART STATIONS

DIGITAL TWIN STATION MAPPING PLATFORM

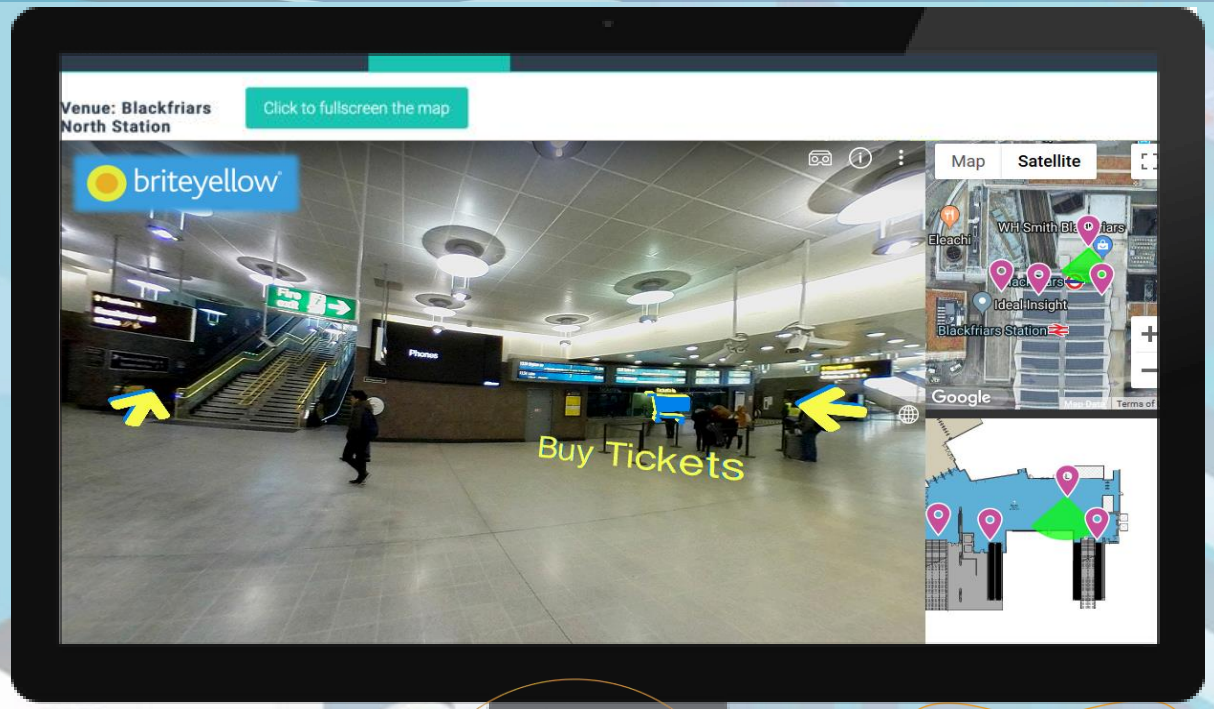
BriteLocate 3D™
Smart Places

A PLATFORM FOR BUILDING AR-VR WAYFINDING SOLUTION

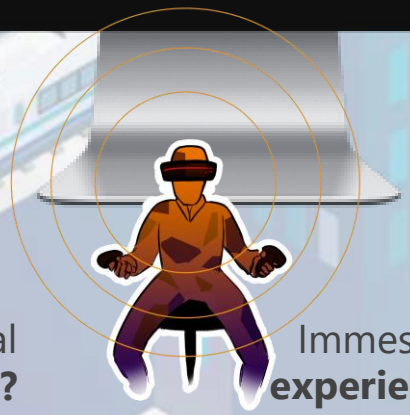


BriteLocate 3D™
Smart Places

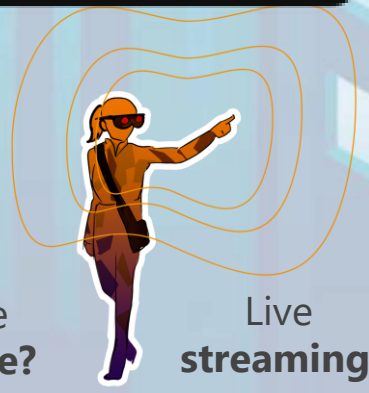
ON BOARD ENTERTAINMENT THROUGH AR-VR



Virtual **retail?**

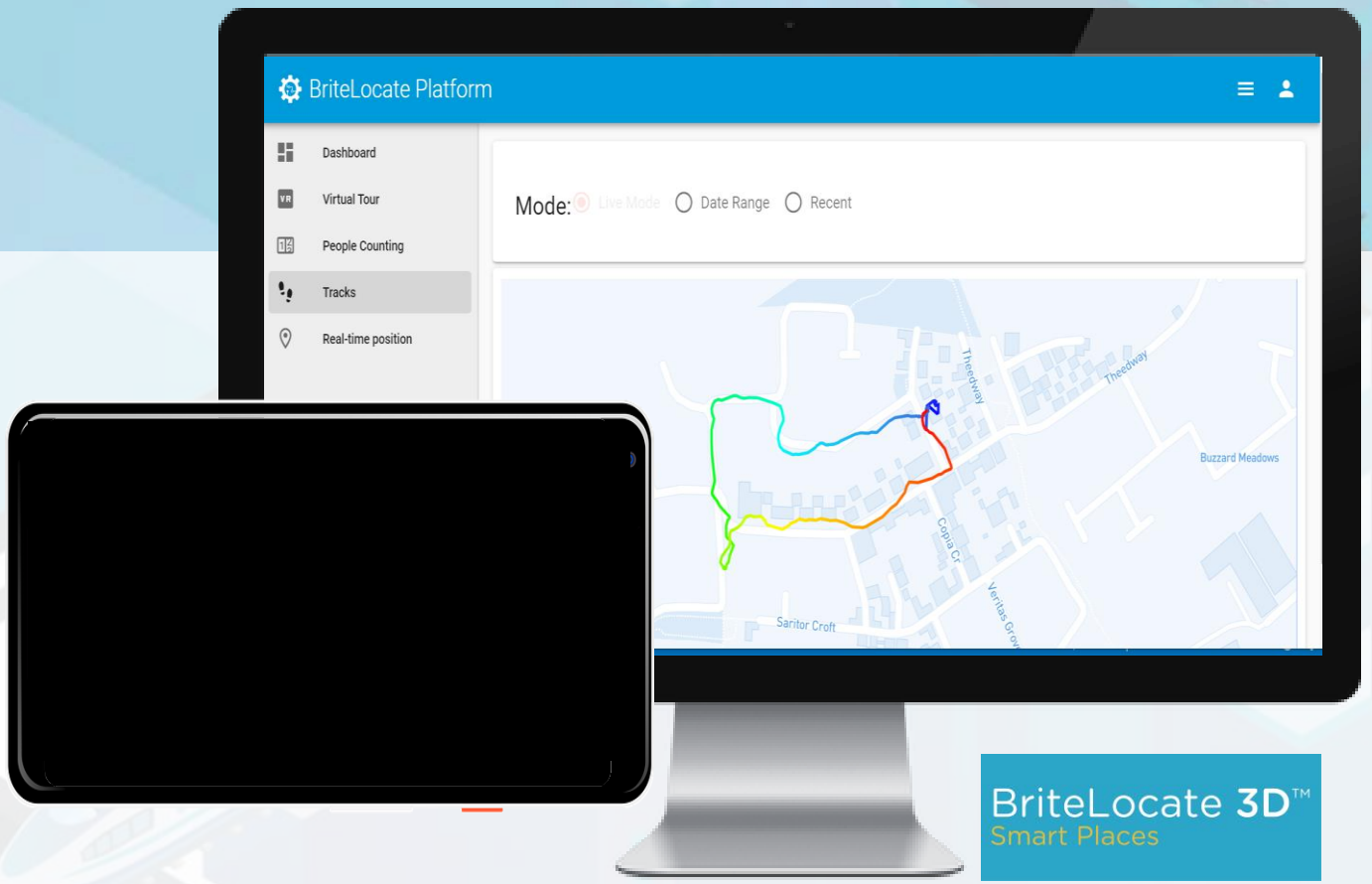


Immesive **experience?**



Live **streaming?**

LOCATION-BASED MESSAGING AND JOURNEY TRACKING



LOCATION INSIGHTS

BriteLocate 3D™
Smart Places

wayra

Go-Ahead

REDROW

DIGITAL CATAPULT CENTRE
CHOSEN FOR SHOWCASE

IDIEC GLOBAL

MIDSUMMER PLACE
SHOPPING CENTRE
MILTON KEYNES
www.midsummerplace.co.uk

Suffolk County Council

MK:SMART

thecentre:mk

Thank you

Fredi Nonyelu
Chief Executive

fredi.nonyelu@briteyellow.com
07785 736039

Testbeds - Stations

What is a testbed?

- A proving ground to **develop, test and showcase** the best new technologies that solve real challenges
- A place to **collaborate** with companies, academics and users
- **Reduce the risk** and the up-front investments in innovations
- Deployment at difference **scales** to test products or services before investing in full-scale development
- **Verify and validate** early in development, enabling new business opportunities and knowledge to develop
- A place to **inspire** others with sustainable, innovative solutions

Develop

Test

Showcase

"By improving trains, tracks and stations right across the country, we will deliver more reliable, frequent and comfortable journeys for passengers and better connect our communities"
Rail Minister, Andrew Jones

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Connected Places