



GWFF

GEOSPATIAL WORLD FORUM

[**CLICK TO KNOW MORE**](#)



HEXAGON

empowering an autonomous future


Reality Capture Division

Antonio Mendes
Mobile Mapping Solutions Manager EMEA



13-16 MAY 2024 | ROTTERDAM

THEME - GEOSPATIAL TRANSITION:
POWERING THE WORLD ECONOMY

An aerial, high-angle photograph of a very busy pedestrian crossing. The crossing is marked with white zebra stripes on a grey asphalt road. Hundreds of people of various ages and ethnicities are walking in different directions across the crossing. Some are carrying bags, some are pushing strollers, and some are pulling luggage. The surrounding area includes sidewalks with yellow tactile paving and some street signs. The overall scene conveys a sense of a densely populated, active urban environment.

**By 2050, the world's
population is set to
increase to 9.9 billion**

(Source: UN)

**By 2050, over 70% of
world population
will live in urban areas**



(Source: UN)



**Each week, it's
estimated that 3 million
people move to cities
every week**



12 AM
MON

Growing demand for individual mobility



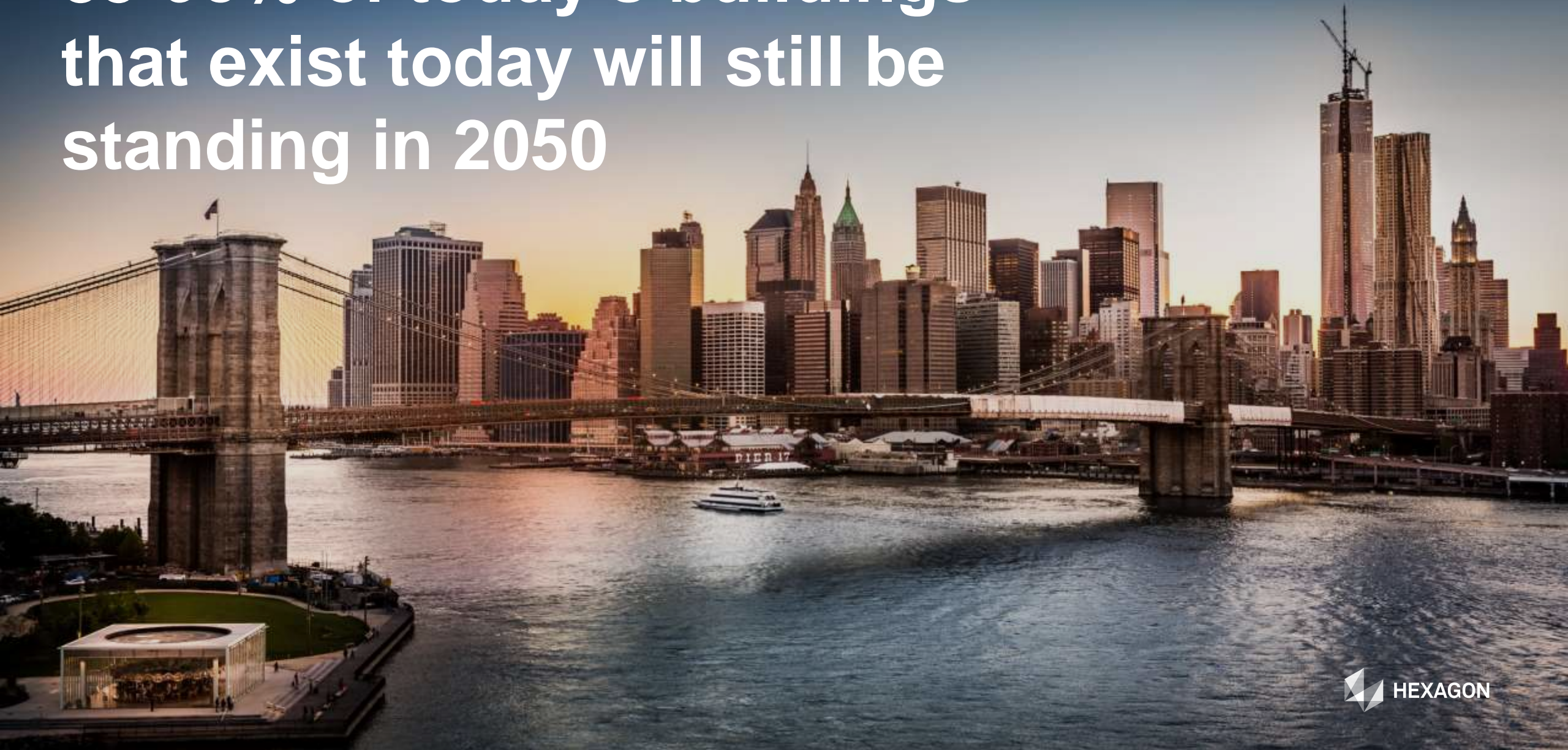
Growing pressure on natural resources and increased demand for utilities

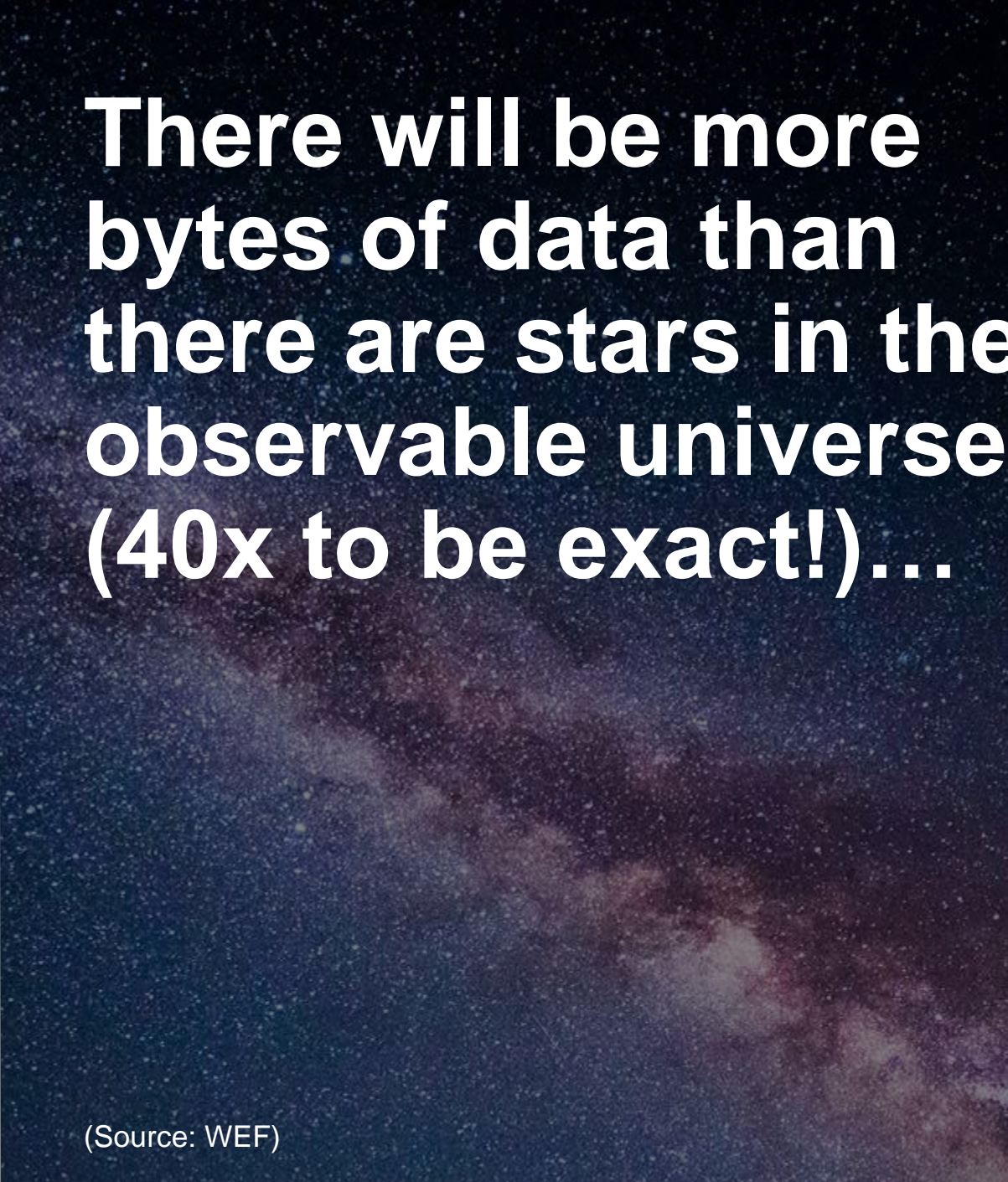


The uncontrollable impact of urbanisation and climate change



**85-95% of today's buildings
that exist today will still be
standing in 2050**





There will be more bytes of data than there are stars in the observable universe (40x to be exact!)...

(Source: WEF)



... virtually every aspect of life is captured and stored in some digital form

(Source: EY)

Introducing the Digital Twin:

The physical product, the virtual product and the connection between the two

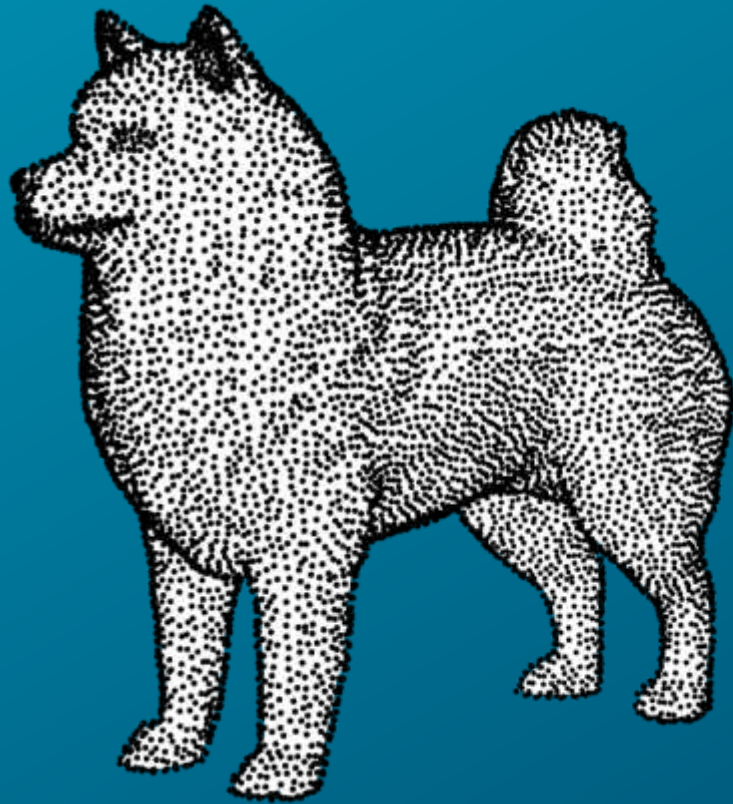
(Source: NASA)

With reality capture we digitise the world, creating **VALUABLE** digital twins of cities, streets, power grids, construction sites to enable transformation

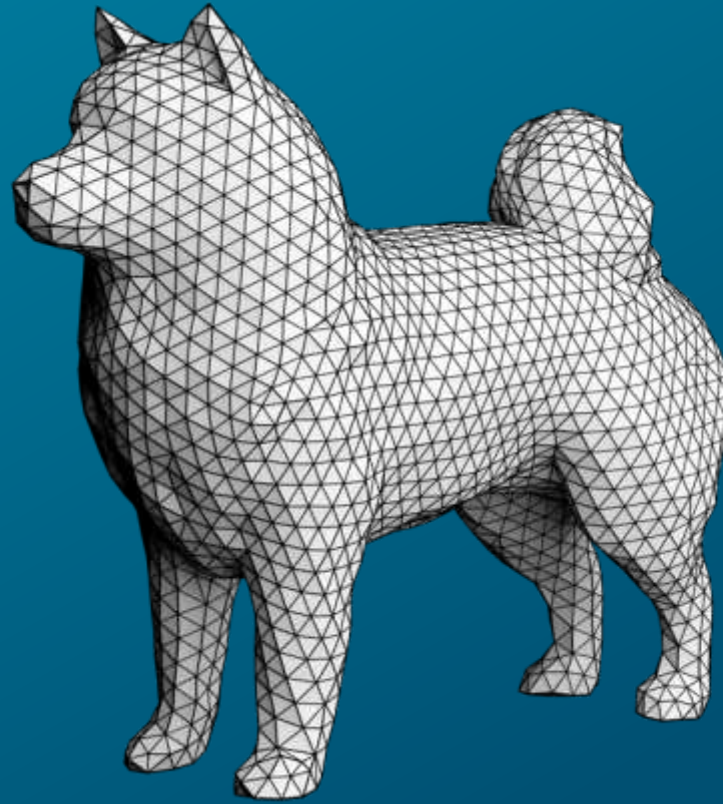


What is Reality Capture?

More than just a point cloud...



Point Cloud



CAD Model



Semantic Model

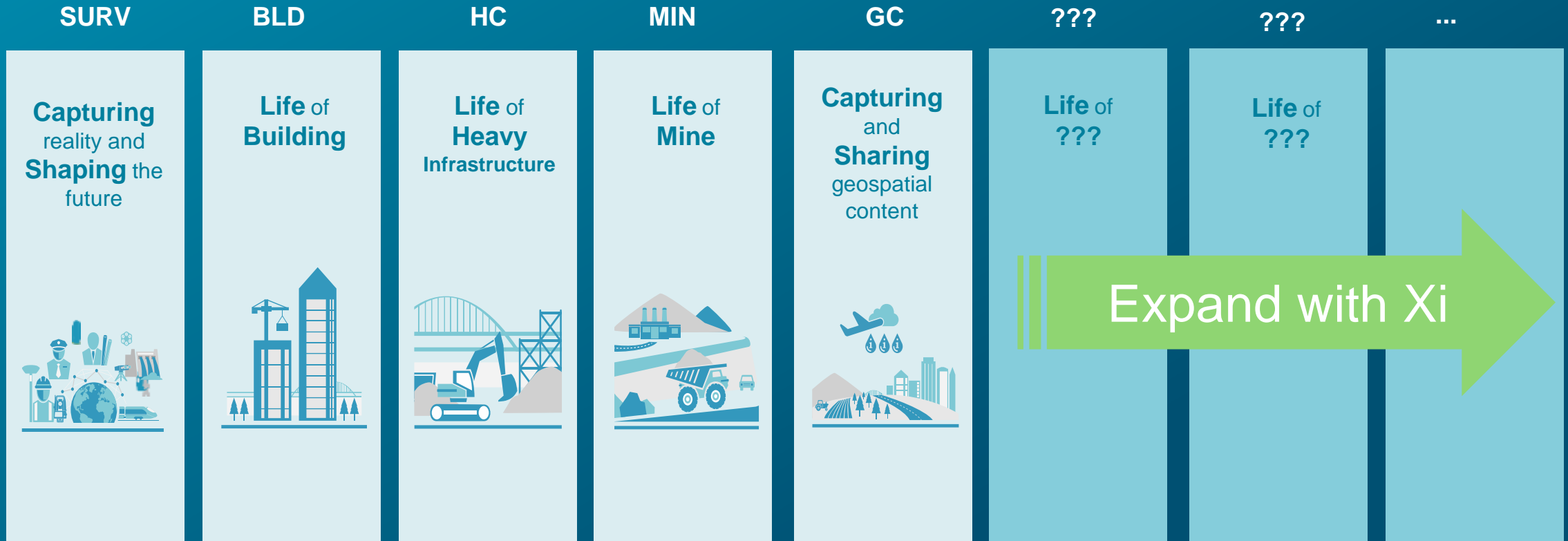


Reality Capture Division

The Industries We Serve

Geosystems accelerates with industry specific solutions (Xi strategy)

Pairing technology leadership with domain expertise – turning technology into opportunity



Reality Capture Division

Target audience

ARCHITECTURE & DESIGN



- Democratisation of technology
- Sustainable creative design
- Efficiencies in time, cost and resource

BUILDING CONSTRUCTION



- Building for life
- Safety on site; remove human error
- Need for efficiencies; reduce costs

HEAVY CONSTRUCTION



- Budget constraints
- Need for efficiencies; reduce cost
- Increase in regulations

MEDIA & ENTERTAINMENT



- Democratisation of technology
- Competitive edge through increased creativity
- Efficiencies in time, cost and resources

OIL & GAS



- Planning, documentation and maintenance
- Safety regulations
- Facility management

PUBLIC SAFETY



- Speed on scene; need for efficiencies
- Data proliferation; integration of multiple data sources
- Regulations

RAIL



- Budget constraints
- Need for efficiencies; reduce cost
- Safety regulations

SURVEYING



- Accuracy, reliability
- Safety on site; remove human error
- Need for efficiencies; reduce costs

Our Product Portfolio

Four product portfolio groups with **ONE** vision



**REALITY CAPTURE
SOFTWARE**

Offering an integrated field-to-finished experience for the user encompassing their entire workflow from the point of data capture through analysis and delivery to clients.



**TERRESTRIAL LASER
SCANNING**

3D laser scanning solutions that set the industry standard to capture, visualise, extract, analyse, share and represent point cloud data to see the world in 3D.



**MOBILE MAPPING
SYSTEMS**

Providing intelligent, autonomous workflows and intuitive interfaces and utilising AI capabilities to transform the world of mobile mapping.

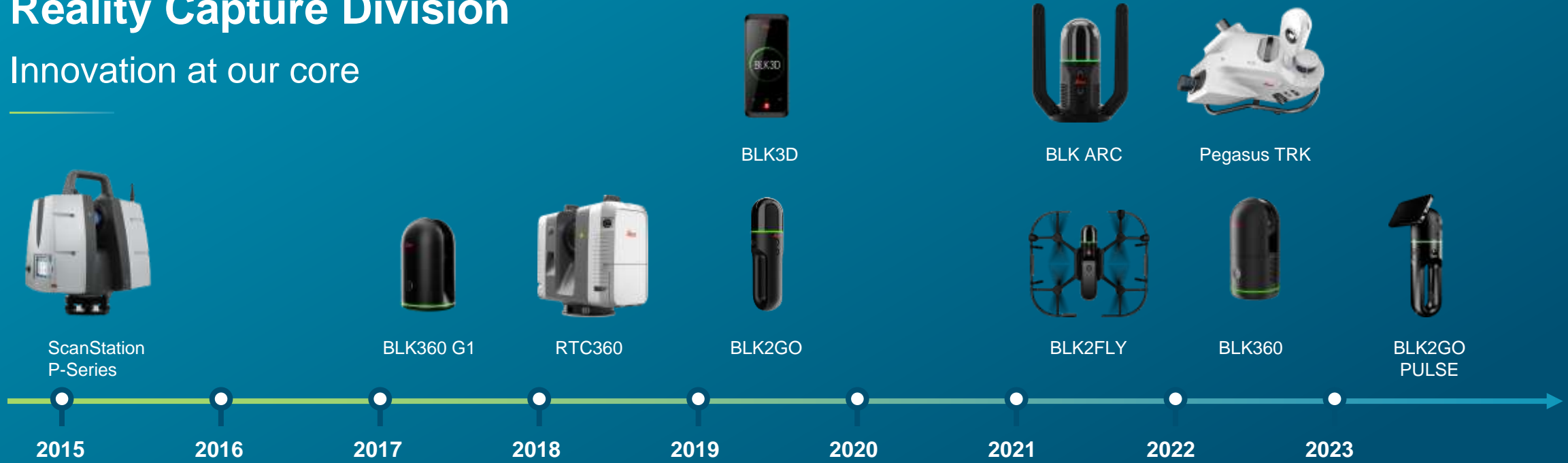


**BLK / BLK
AUTONOMY**

BLK Autonomy makes reality capture fully autonomous, from laser scanning and data processing to the creation of high-quality deliverables, precise insights, and immersive experiences.

Reality Capture Division

Innovation at our core



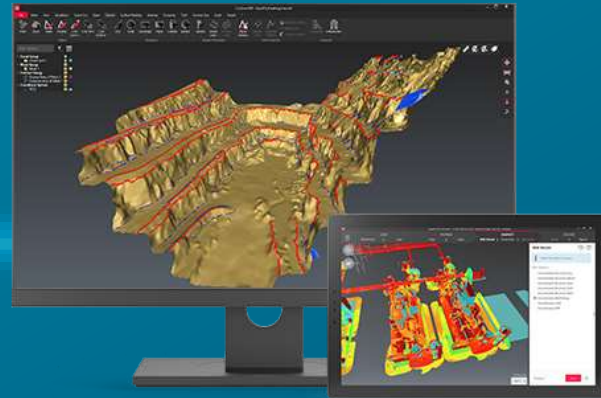


Our Product Portfolio

Software



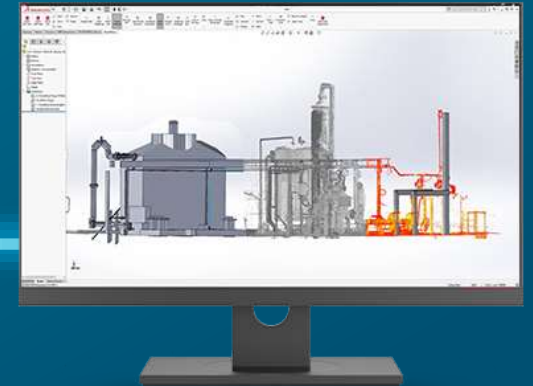
CYCLONE REGISTER 360 PLUS



CYCLONE 3DR



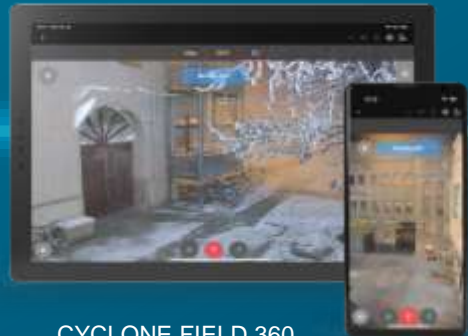
TRUVIEW



CLOUDWORX



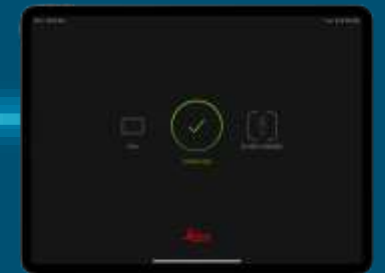
Reality Cloud Studio, powered by HxDR



CYCLONE FIELD 360

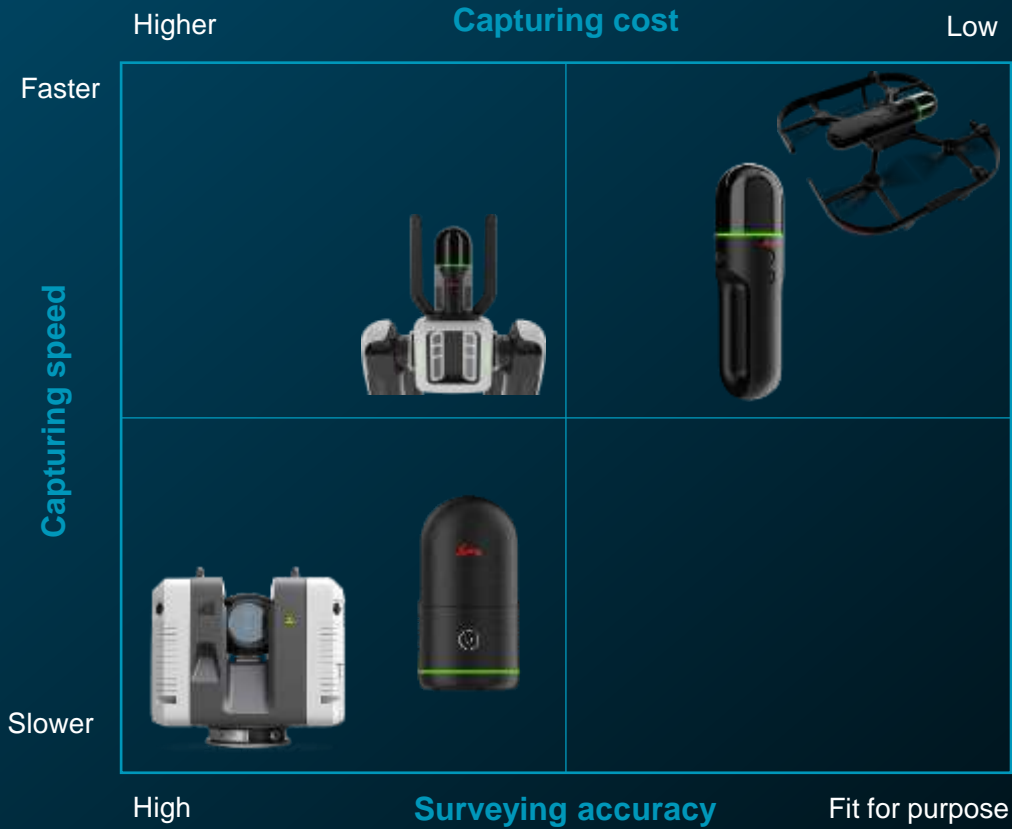


BLK LIVE APPS



We can handle different data input

Cost- and time-efficient creation of object-based digital twins depending on customer requirements



Data acquisition



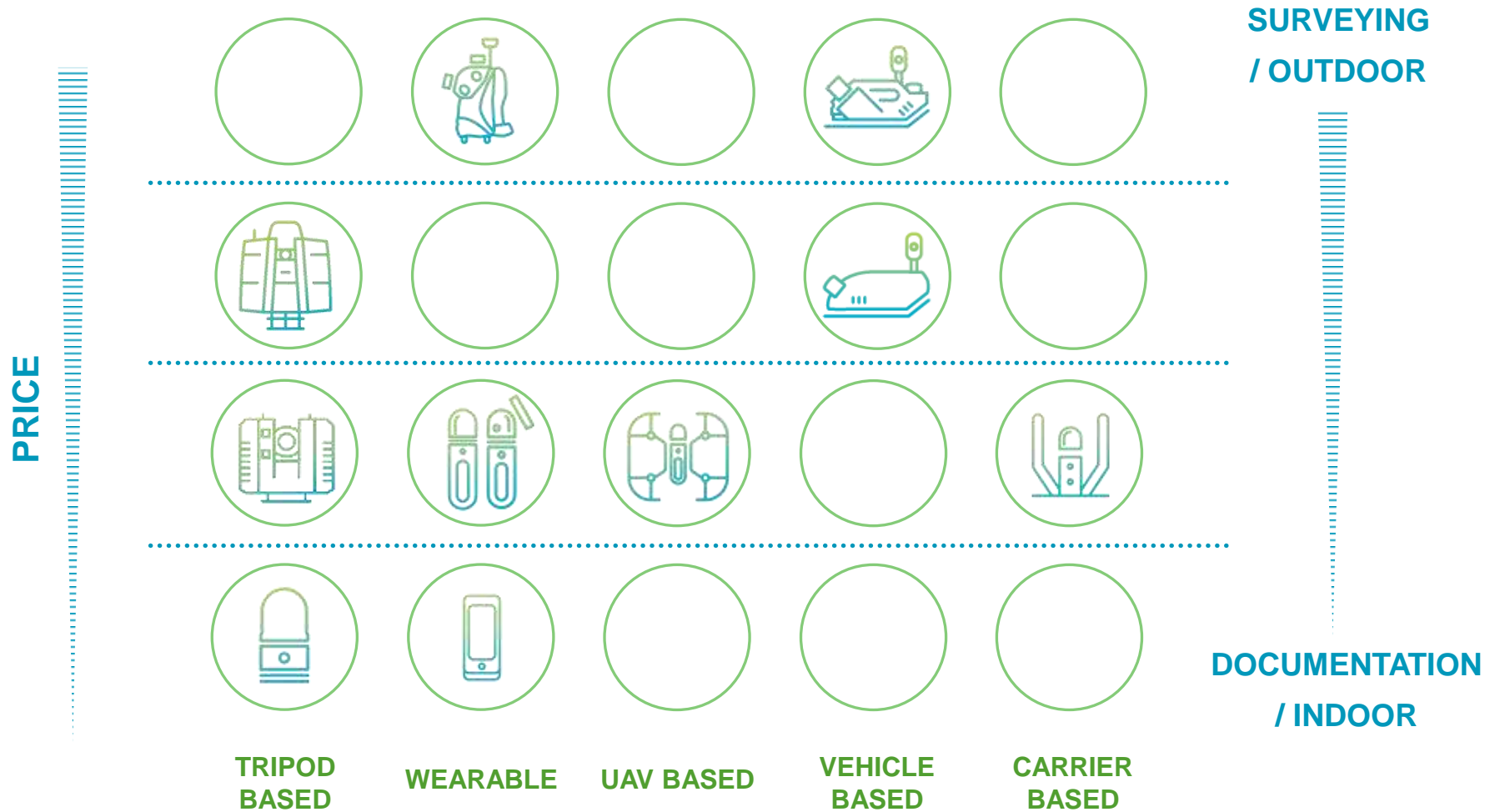
3D generation



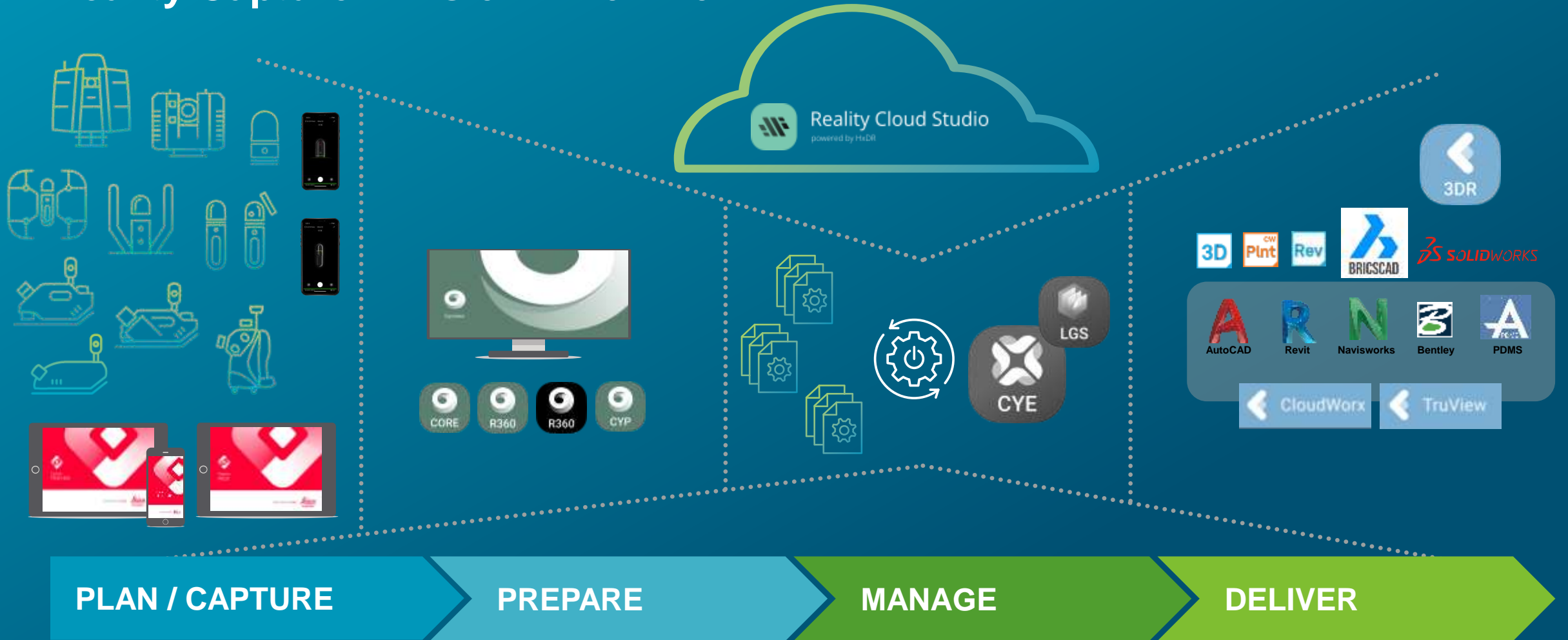
Semantisation



Reality Capture Division - Product Portfolio

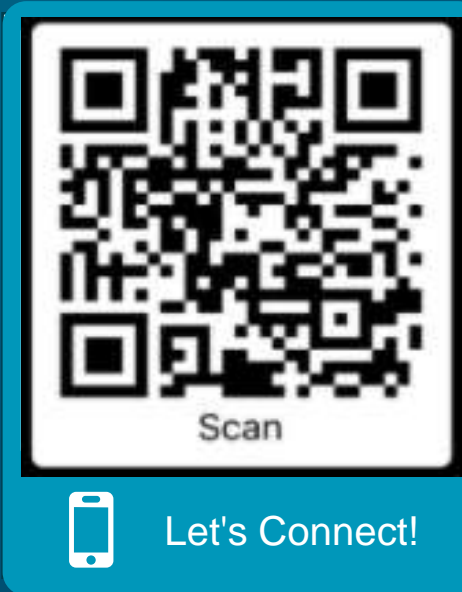


Reality Capture Division - Workflow



Let's Connect!

- Geomatic Engineer, Lisboa, Portugal
- 25+ years working in surveying and geospatial industry
- 10 years at Leica Geosystems
- 13 years working on **Mobile Mapping** Business Development around the globe



A hand in a dark suit jacket points towards a glowing digital globe. The globe is composed of a complex network of white lines and dots, representing a global network or data flow. The background is a deep blue with some blurred light sources.

The best way to predict the future is to create it

Abraham Lincoln

Thank you



HEXAGON

empowering an autonomous future

