

An aerial photograph of a high-speed train, primarily orange with a grey top, traveling along a set of tracks. The tracks are surrounded by a dense forest of evergreen trees. The train is moving from left to right across the frame.

Cohesive

Asset Management Digitalization Approach and Benefits

Cohesive

- *Asset Lifecycle Management – design to decommissioning*
- *Data Management and Digital Integration – information standards, modelling, integration and lifecycle management*
- *Performance – optimize asset performance to design targets*
- *Sustainability – maximize operating excellence and shareholder value*
- *Enterprise Asset Management – largest Maximo implementer*
- *Compliance – regulatory compliance needs (NTD Reports)*
- *Funding – optimize use of grants and funds, reduce TOTEX*
- *Experience – worldwide engagements, including essential Prosci change management capabilities*
- **Bentley**[®] – owner and digital infrastructure software leaders



Hands on industry experience



Systems Integrator:
All asset lifecycle stages



Leading Digital Integration
specialists



Strategic Advisory Services



Authority in Global Data
Management



Experts in creation and
management of Digital Twin

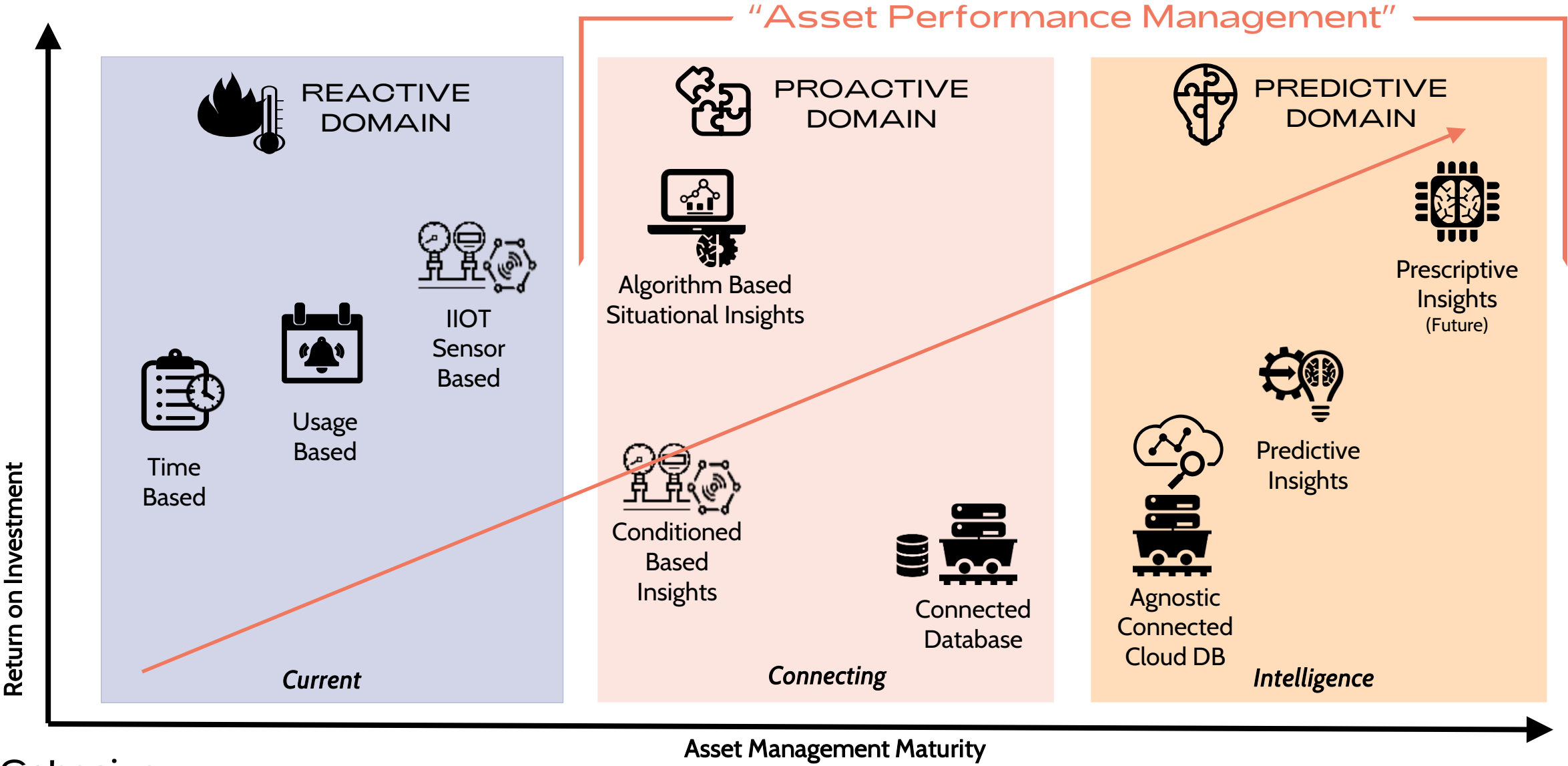


World renowned digital
transformation consultants



Organizational Change
Management

Evolution of Digital Asset Performance



Continuous Feedback and Improvement

Leverage Engineering Data

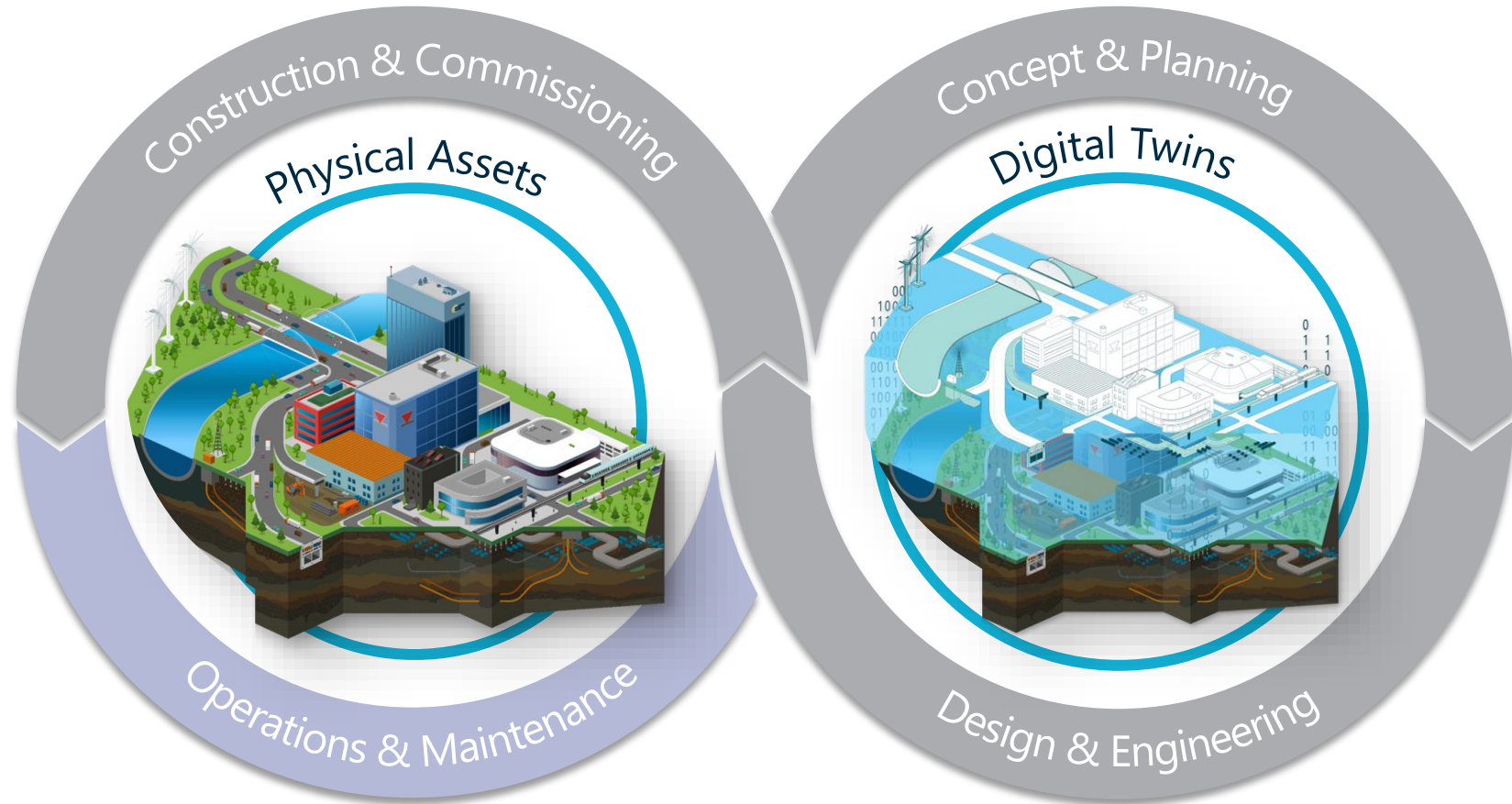
Throughout operations make better informed operating and maintenance decisions based on real data.

Condition Assessment

Leverage survey and reality data with AI to assess asset conditions and corrective actions.

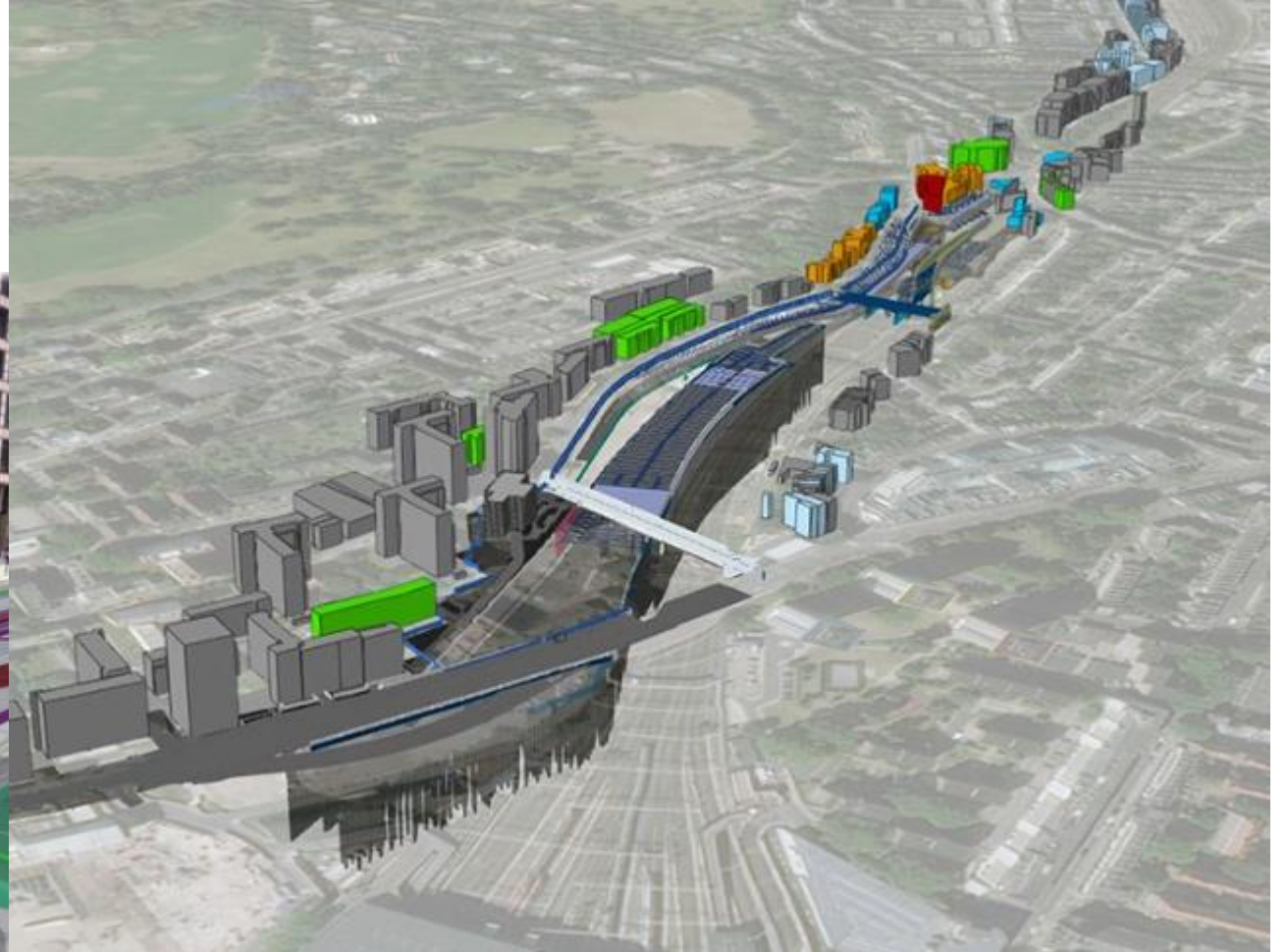
Compliance

Ensure assets are reliable, safe and meet the highest standards for safety and performance.

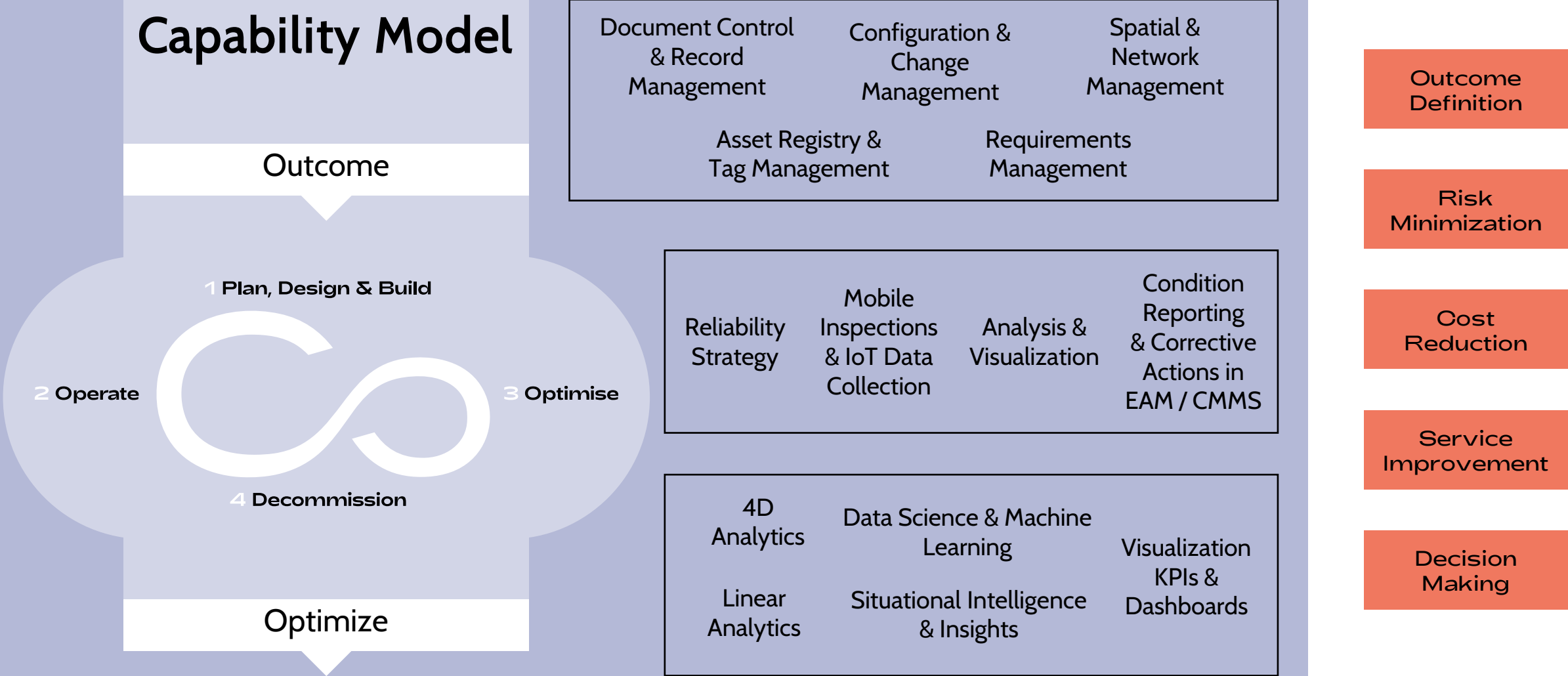


Business Needs and Challenges

- Uncovering digital information
- Meeting ISO standards
- Maintaining pace with other programs
- Maintaining evergreen data

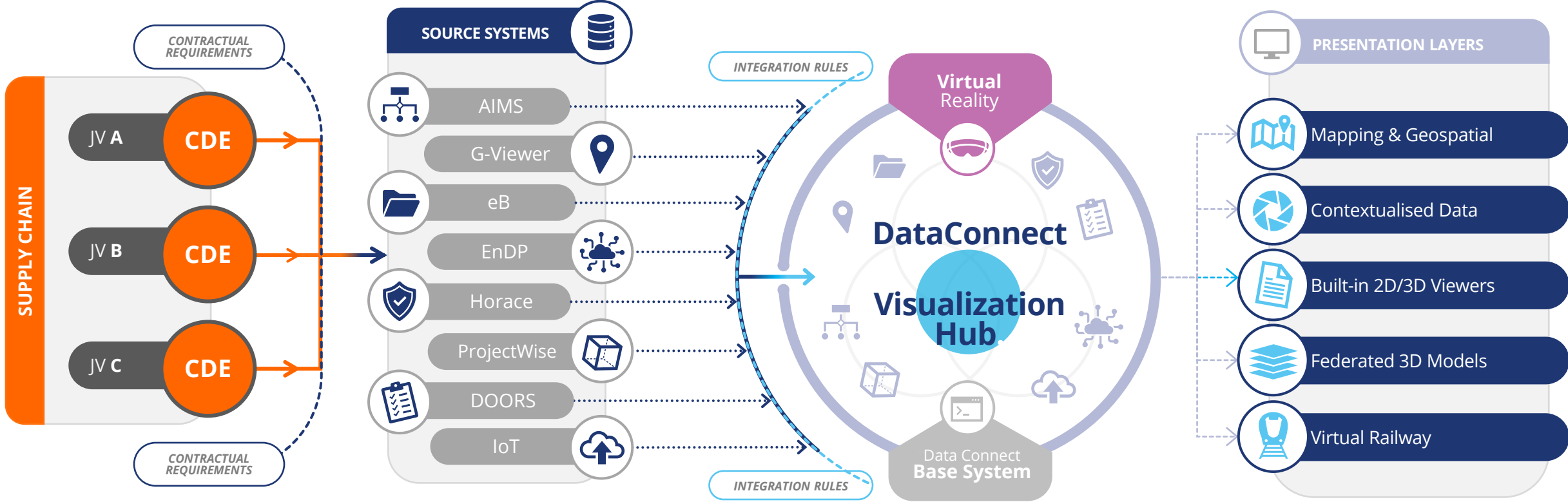


Leverage Digital Innovation

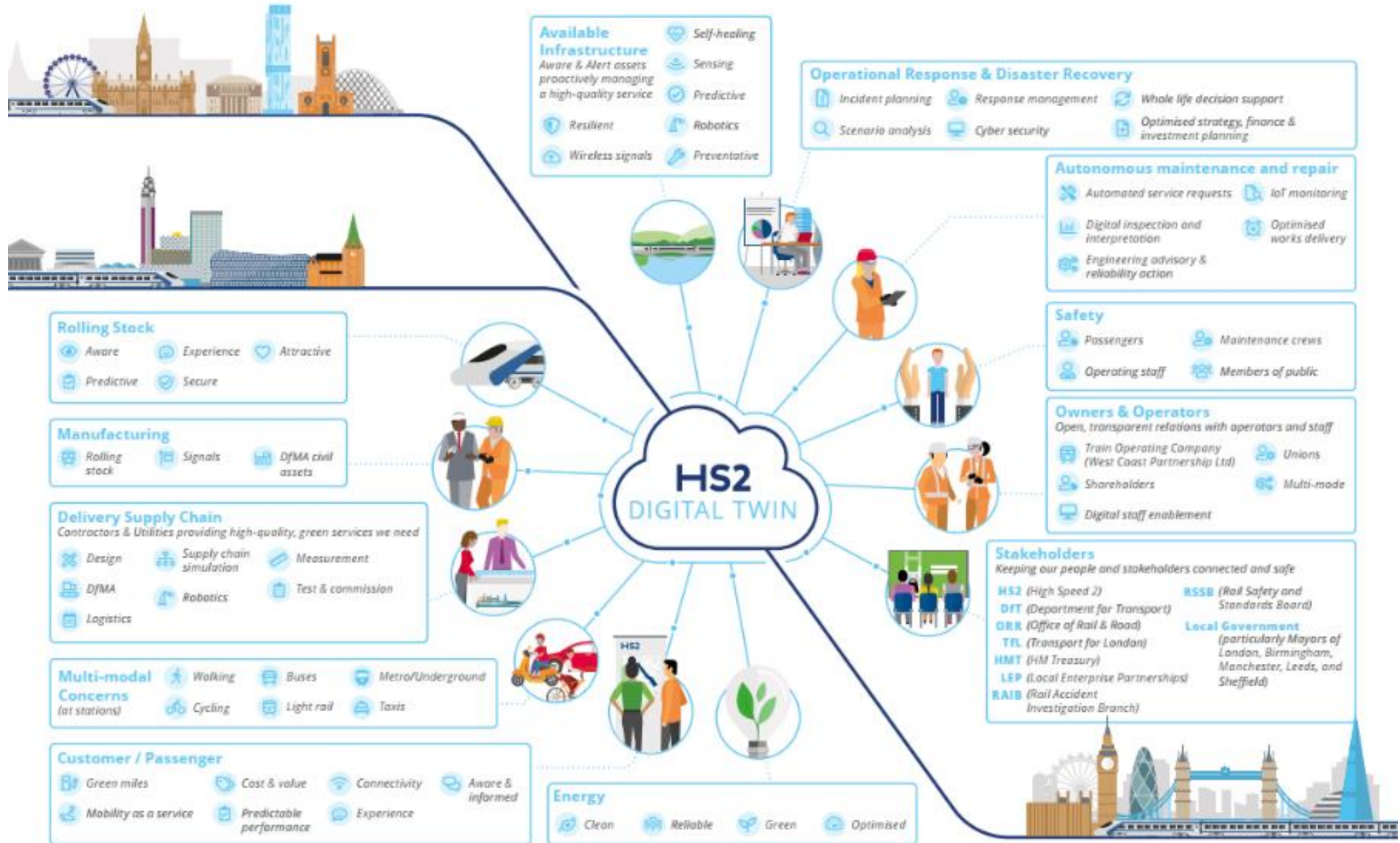


Data Management – Harmonization, Visualization

Data connectivity: unique asset ID's (UAID's) and geolocation ID's



Goal - Address All Areas of the Business, In Order of Priority



Justifying Ongoing Improvement

Visibility and control across the project and operations

Real-time, reliable and consistent data across all assets and sites

Outcomes:

- **Regulatory compliance** - ongoing requirements management
- **Increase safety** – identify, eliminate safety issues via integrated data streams and dashboards
- **Reduce downtime** - increase operating capacity through real time monitoring and predictive analytics
- **Minimize total expenditure (TOTEX)** - optimize staffing, supply chain, and asset utilization
- **ESG achievements** - demonstrate benefits
 - Decarbonization
 - Net zero
 - Culture and change management

Benefits:

- **Capex:** optimized, via:
 - Business assessments
 - Reliability engineering
 - Funding transparency
- **Opex:** 10% (at least)
- **TOTEX:** significant, via:
 - *Whole-life value*
 - *Asset life extension*
- **Project costs:** 2.5-8.5%
- **Schedule:** 4-12%
- **Feedback loop:** one improvement project to the next
- **Justify:** further improvement plans

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Thank you

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