

Introducing Infinitive Group

Adam Bradley & Chris Blackburn

2nd of April 2019

Connecting Future Enchancement

Our leadership team



Ben Craze

- Chief Executive Officer
- 15 years experience including at Rolling Stock Director level



Adam Bradley

- Principal Software Developer
- 9 years experience leading software and mobile application development

Maria Craze

Business director

Chris Blackburn

Chief Technology Officer

safety-critical software

systems into service

11 years experience delivering

 12 years experience in project management and business administration

Transforming data into innovation

- Formed in 2017
- 5 employees and 12 active associates
- Based in Bletchley Park, Buckinghamshire
- Combining deep expertise in:
 - Railway systems
 - Software development
 - Data and Information Systems
 - Engineering Project Delivery
 - Infrastructure Design and Security





Machine Learning & Artificial Intelligence Systems Engineering, Rolling Stock & Signalling

Integration and Management of Systems and Data Complex problem Solvers Hardware & Software Development

Transport Systems Research & Development

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What "Digital Railway" means to us

Digital Engineering

- Computer Aided Design
- Virtual Reality Simulation
- System modelling
- Building Information Modelling
- Project management tools

We know how to introduce and use Digital Engineering on projects

We have lots of experience delivering novel digital control systems into service

Communications-Based Train

Traffic Management Systems

Driver Advisory Systems

Stock & Crew Management

Digital Control

• Signalling, ETCS and

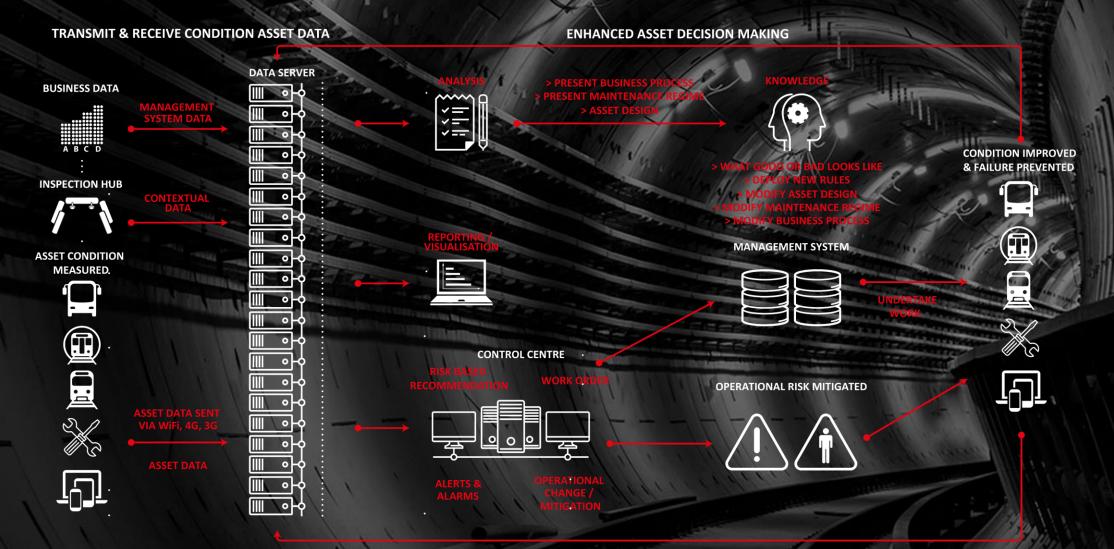
Control

Digital Insights

- Remote condition monitoring
- Processing, transforming and storing data
- Providing real-time insights and analytics
- Embedding information into operations

Our core focus We develop solutions to help companies to make better decisions using data

Delivering end-to-end digital solutions



Digital Insights – Making better decisions

Data Collection

We use a robust engineering approach to deploy sensors to gather data on health and usage of assets.

Data Analytics

We deploy visualisations to give better insights into performance and trends across the whole system.

Data Transformation & Integration

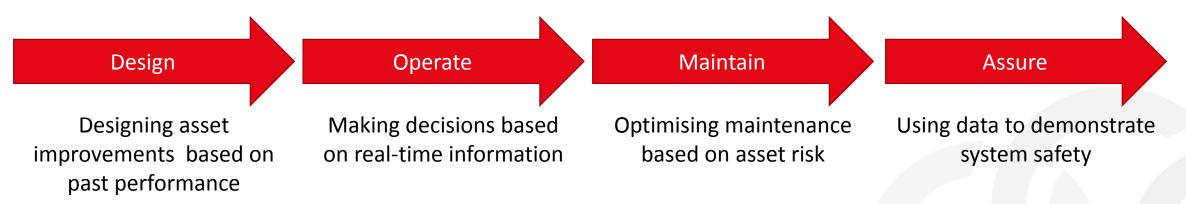
We translate the data into usable formats and store it where it can be useful, integrated with other data sets and systems.

Data Tools & Applications

We build useful solutions for customers to make instant decisions on data and share and record information.

Cross industry digital insights

We support the full asset life-cycle across the rail industry



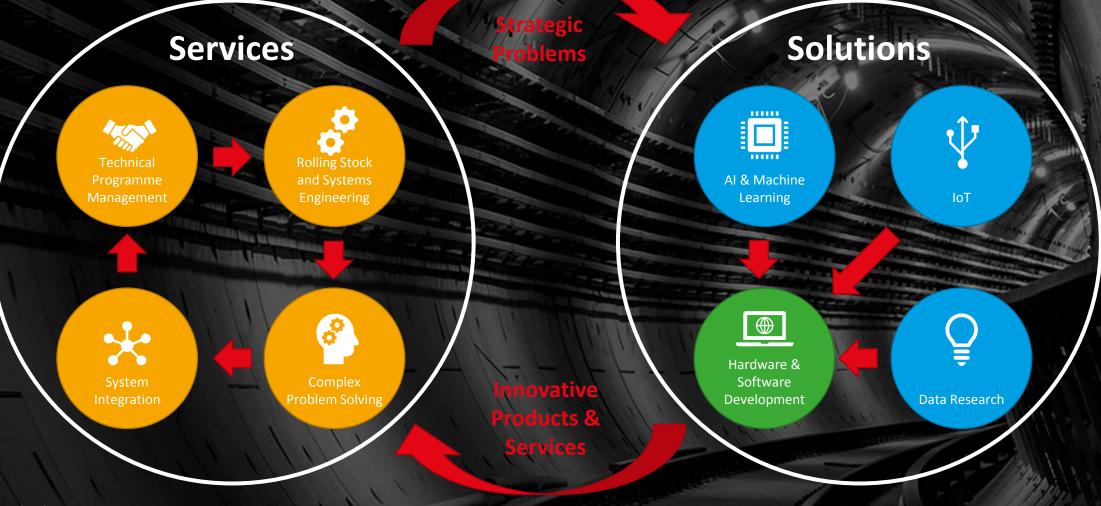








Our catalyst for the digital railway revolution



06/06/2019

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A flexible delivery approach



Consult and deploy

We can support our customers to deliver their software projects using their enterprise IT systems.



Build, Host, Support

We can deliver bespoke software providing on-going hosting and 24x7 support for solutions.

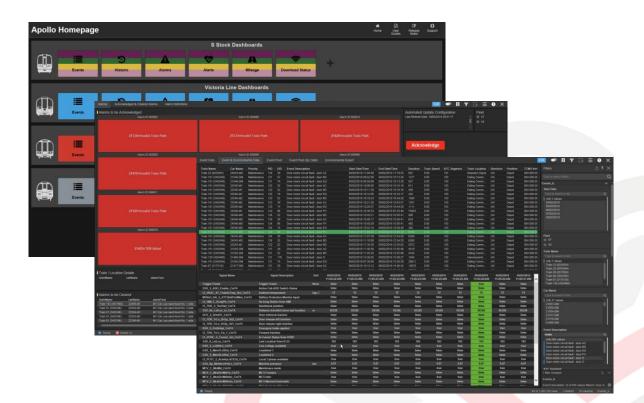


Solutions-as-a-Service

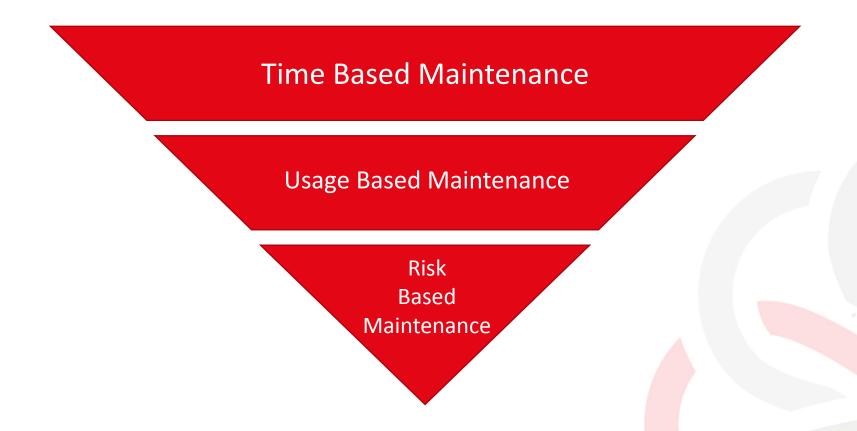
We develop solutions that customers can use for an annual licence to minimise their up-front cost.

Case Study - London Underground "Project Apollo" Data-driven maintenance

- In 2017, London Underground needed to modernise their train maintenance through data-driven insights.
- Infinitive Group designed and installed a data collection system onto the Jubilee Line '96' Tube Stock to gather real-time data from trains.
- Infinitive Group developed and deployed bespoke software to transform train data into useful analytics on Central Line, Victoria Line and Sub-surface Lines.
- We also created an **alarm system** for predictive maintenance and real-time decision making.



Progression of Rolling Stock Maintenance



Demonstrations

Apollo & Artemis

Constant in the second second

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