Elevator Pitches
TOC17 Briefing Event

11 December 2017
Urban Control

- Nick Coad, Business Development Advisor
- nickcoad@urban-control.com
- 07769 881199 / www.urban-control.com

Elevator Pitch

- Smart cities business that use Internet of Things technology to connect assets, beacons and sensors to the cloud
- We are interested in working with partners who have new sensor based services &/or use of beacons for indoor navigation or customer information at stations
Incremental

• Lewis Gill, Founder
• lewis@incrementalsolutions.co.uk
• +44 (0) 7876794342
  www.incrementalsolutions.co.uk

Elevator Pitch

• Incremental provides a performance-focused data-analytic platform for vehicles, including live train tracking

• We already time trains to the second via GPS, but we have ideas to improve timings in areas challenging for satellite signals; we need partners who own infrastructure and trains.
OptiRail Ltd

- Leonid Zhebrak, General Director
- zhebrak@optirail.co.uk
- +44 1904211061 / www.optirail.co.uk

Elevator Pitch

- OptiRail is an innovative company which has developed SATO (Smart Automatic Train Operation) to reduce traction energy consumption up to 25%
- OptiRail is interested in benchmarking solutions in optimum energy use of traction energy
- OptiRail offers SATO via either a traditional software license or Energy Service contract
- OptiRail seeks to work with railways operators looking to drastically cut expenses, and manufacturers looking to produce more fuel-efficient and environmentally friendly locomotives.
DigiThreadz Ltd

- Roger Burke-Hamilton, Managing Director
- rbh@digithreadz.com
- +44 (0) 47810 658575 / www.digithreadz.com
- @DigiThreadz

Elevator Pitch

- We are a private consultancy that spots great technology and creates solutions to gain competitive advantage from Industrial 4.0 and Digital Economy, with an emphasis on human experience
- We want to demonstrate a “values-based” whole system approach with governed data to connect retailers (increase profit), passengers (interactive behaviour), cities (gross value add) and train operators (improve revenue, security, safety, business continuity and disaster recovery) focussed on social outcome, impact and benefit
- We are seeking a forward thinking and progressive train operating company to partner with
RDS

- Richard Shenton, Director
- richard.shenton@rdsintl.com
- +44 (0) 7770 991497
- www.rdsintl.com

Elevator Pitch

- Products: Track precise train positioning
  Driver Support System
- TOC 17: Co-operative driving
- Partners: Train operators
  Headway modelling/simulation
  Train – train communications
  Human factors
We help improve transport
Software / Analytics

We have
- Real-time feeds
  - GPS
  - Signalling
  - Timetable

Do you have?
- Data
- Algorithms
- Software
to integrate with what we have to
Give operators more “end to end solutions”

Vision
Integrated ecosystem of data and software

Larry Fawkner - Director
larry.fawkner@cogitare.biz
07932 614 425 | www.cogitare.biz
Denchi Power Ltd.

- Andrew Jordan – Business Development Manager
- andrew.jordan@denchipower.com
- 07713 502481 / www.denchipower.com

- Denchi Power has been designing and manufacturing lithium-ion batteries in the UK for over 15 years
- We are interested in working with companies looking to optimise energy usage in the move towards zero emissions
- We are offering our capabilities in designing and manufacturing batteries for high reliability systems building on our defence and aerospace heritage
- We are interested in collaborating with system suppliers and rolling stock manufacturers whose need is to reduce costs and improve total cost of ownership in their electric-powered systems.
MRL

• Roger Bromley, Director
• r.bromley@hud.ac.uk
• 07710 486888

Elevator Pitch

• We are building an industry-wide innovation infrastructure, both digital and physical. Funding to date AIR3 £1.7m, AIR4 £1.2M.
• Any theme that needs large-scale engagement with passengers
• Digital includes open innovation portals, ideation spaces, social media, data acquisition and analysis. Physical includes innovation hubs at London Bridge & Euston stations.
• Partners with innovation projects that could be delivered better, faster, bigger and at less risk by using the capabilities of the innovation infrastructure.
Filtronic

• Mike Geen, Head of Engineering
• mike.geen@filtronic.com
• +44(0)7973 622584 / www.filtronic.com

Elevator Pitch

• Filtronic design and manufacture millimetre wave products for very high data rate wireless links (up to 10Gbps)

• Filtronic is interested in the adaptation of mm-Wave technology developed for backhaul in cellular phone networks for use in the rail network to address the future needs and expectations of passengers and for train service operational improvement

• Filtronic seeks to work with systems integrators and OEMs developing high data rate communication equipment for the rail network. Filtronic can supply equipment to enable wireless links from trackside to trains with fibre like data rates - essential for future infotainment, safety and security systems,
WSP

• Rick Singleton – Principal Consultant
• Dr Amir Toossi – Principal Consultant
• rick.singleton@wsp.com
• amir.toossi@wsp.com

Elevator Pitch

• WSP is a multi-national engineering consultancy with a strong presence in the UK rail industry. We are heavily involved in HS2 including operations modelling & timetable planning.
• WSP is interested in the benefits and challenges of Timing to the Second. We are offering our railway operations expertise, modelling capability and knowledge of implementation challenges.
• We are seeking partnerships with suppliers of technology in timing measurement and IT systems such as data management.
BlueThink UK Ltd.

• Javier Nadal, Director
• javier.nadal@bluethink.co.uk
• +44 (0)7490 391 117
  www.bluethink.co.uk

Elevator Pitch

• BlueThink is an international engineering consultancy specialised in innovation through technology transfer.

• We are interested in performing technology scouting and prototyping activities for innovative applications in the rail industry, leveraging technologies coming from different sectors.

• We are looking for system integrators who wish to introduce new technologies in the sector, while minimising the effort (in time and cost) needed to do it.
Movey Ltd

• Darren Thomson, Director
• darren@movey.co.uk
• 01908 900902 / www.movey.co.uk

Elevator Pitch

• Movey is a video agency, specialising in delivering rapid learning outcomes using video.
• Movey is exploring how 360 immersive video learning can enhance frontline staff training in responding to safety critical situations and minimising disruption to train services.
• Movey seeks to collaborate with partners who are looking to explore interactive 360 learning for CPD for front line and safety critical roles within in the rail industry.
Elevator Pitch

- Graffica provides the HERMES Simulation Platform for evaluation and validation of railway systems. It also offers consultancy and support for studies, and concept development.
- We are keen to take a whole systems approach, which may cover all stated TOC17 themes, with focus on CCC from Technical Strategy.
- We offer services in disruption management, looking to provide an integrated toolkit to calculate costed solutions for operators.
- We are looking to work with RUs to solve specific disruption problems that could be assisted with improved tools.
Currently focusing our 30 years of railway engineering and operational experience on 2 Optimum Energy use projects:

- **LoCoFlyER** offer: Seeking the best RU partner to benefit from first-in-class installation, realising energy savings and reduced emissions (retained by SME/ University-led team)

- **Other technologies**: Seeking the best OEM/ SME solution to reduce diesel use and emissions (retained by RU)

*LoCoFlyER (Low Cost Flywheel for Efficient Railways) won 2 rounds of RSSB Powertrain competition funding and is under manufacture for Hardware-in-the-Loop tests Q1 2018. Which RU wants to implement 1st?
TWI – Plant Integrity Ltd

- Peter Mudge – Technical Director
- peter.mudge@twi.co.uk
- 01223 899000 www.twi-global.com

Elevator Pitch

- Business: Development and implementation of novel inspection and monitoring systems. Subsidiary of TWI.
- Theme: Minimisation of disruption to train services, specifically arising from inspection activities. Track and infrastructure (bridges).
- Capabilities: Train-mounted rail monitoring using Laser generated low frequency ultrasound. Other Laser applications…
- Collaboration: Network rail for track inspection/monitoring requirements, TOCs for interfacing with rolling stock & trials.
Maynard Design

- Julian Maynard - Managing Director
- julian@maynard-design.com
- +44 (0) 7788 667190
  www.maynard-design.com

Elevator Pitch

- We are an International Design Practice in the transport sector who specialise in user centred design and customer experience
- Operations timed to the second; minimal disruption to train services
- We deliver ethnographic research, user interface and product design
- Maynard seeks to work with Universities, Technology companies and TOCs who want to improve operational efficiency and enhance customer experience through user testing and the application of new technologies
Met Office

• Michael Szczepanski, Business Manager Surface Transport
  • rail@metoffice.gov.uk or michael.szczepanski@metoffice.gov.uk
  • +44 (0) 7917 000 206 / www.metoffice.gov.uk

Elevator Pitch

• Met Office is the National Meteorological Service for the UK, and a world leading weather forecast and climate change research centre, who also deliver commercial services for safe railway operations.

• Met Office are seeking collaborations and/or partnerships with a range of organisations that are developing innovative technologies for applications that are sensitive to weather.

• We are offering our scientific and operational knowledge in weather and climate risk impacts for railway applications, as well as access to data services and products for integration into technologies.
Elevator Pitch

- SCT enable our customers to locally utilise smart functionality and remotely monitor the condition of their assets, so that they can benefit by moving from time based maintenance to condition based maintenance.
- Minimal disruption to train services is our interest, specifically how our technology can be used to improve maintenance, prevent equipment failure and the associated delays.
- Our Smart Washer and Smart Accelerometer sensors plus their associated Smart Ecosystem are part of our vision of a Smart S&C (switch and crossing). Enabling RCM of safety critical fasters, track stability, switch movement and high impact events. Allowing us to prevent point failure and fatal derailments.
University of Southampton

• James Pritchard
• Research Fellow in Rail Systems
• j.a.pritchard@soton.ac.uk
• www.trg.soton.ac.uk

Elevator Pitch

• Academic Institution with a strong record of applied rail research
• Focus here likely to be Operations Timed to the Second
• We can offer data analysis and modelling and have an interest in passenger behaviour
• We are looking to build on successful industry links and provide support to a TOC, who can give us access to data etc.
BlockDox

- Nic Shulman
- nic@blockdox.com
- 08000698188 / www.blockdox.com

Elevator Pitch

- BlockDox provides passenger footfall analytics on trains, platforms and stations using artificial intelligence, machine learning and IoT.
- Primarily interested in operations & minimal disruption to train services.
- We can provide innovative sensor & analytics technology
- We want to partner with TOCs & station operators as well as related suppliers.
Elevator Pitch

- We have an **unmatched experience** in innovation programme management and railway competitions.
- We can help you get your ideas railway-ready, for this and other competitions:
  - a) Develop proposition, b) find partners, c) help project manage and d) frame your proposal (to go from a 6 to a 9/10).
- This is a stand-alone **commercial in confidence** service, with dedicated personnel and file systems to avoid any potential conflict of interest.
Elevator Pitch

- The Control Systems Group (CSG) focuses on the application of advanced dynamic modelling, control and condition monitoring concept to real problems in the rail sector
- CSG is interested in applying these disruptive ideas to reduce ‘downtime’ in bogie maintenance and detect real-time changes in network running conditions
- CSG is seeking industrial partners who are interested in creating lab scale or full scale demonstrators of these disruptive concepts
Productiv Ltd.

- Tom Donnelly: Product Strategy Manager
- Tom.Donnelly@productivgroup.co.uk
- 017824 428 435
  www.productivgroup.co.uk

Elevator Pitch

- Productiv works alongside technology developers to deliver engineering, commercial/marketing and manufacturing capability
- Key theme is optimum energy use (toward zero emissions): We specialise in turning low carbon technologies into products and then making them
- Productiv seeks partners requiring industrialisation, manufacturing and commercial services that will focus the development process and identify the market. We can also manufacture the end product
Transport for London

- Mark Bush, Innovation Lead
- mark.bush@tfl.gov.uk
- www.tfl.gov.uk

Elevator Pitch

- We are London’s integrated transport authority including London Underground, DLR, London Overground and London Trams.
- We have a number of existing InnovateUK, RSSB and DfT funded innovation projects already underway.
- We are interested in any new concepts that will deliver a positive commercially viable impact on the operational railway.
- We are also interested in proposals where benefits will exist for both the metro and national rail services.
Synectics

- Ken Kyle, Business Development Manager
- ken.kyle@synx.com
- 07554 332755 / www.synecticsuk.com

Elevator Pitch

- Synectics provides CCTV and surveillance solutions. Working with Acorel for TOC17.
- We are looking to address “Operations timed to the second”
- Utilise passenger counting technology with predictive analysis and historic trends to decrease / better manage station dwell time
- Looking to partner with TOCS to trial this solution
The Imagination Factory

- Julian Swan Co-Founder
- julian@imaginationfactory
- 07748767688

Elevator Pitch

- Engineering team working on RSSB Predictable & Optimised Braking Project
- ‘Minimal disruption to train services’ & higher capacity through Closer Running
- Engineering of Track Treatment System Low speed, RHTT or Train Mounted
- Implementation partners including: Manufacturers, Railway System Integration Investment, Customers
Elevator Pitch

- Government funding to help companies expand within or into the rail market with existing or new rail based products or services
- All TOC17 themes are of interest to this national Rail Fund which is predominately loan based targeting at helping SMEs
- To help businesses fund additional capacity / capabilities and or to help them bring innovative products and services to market in addition to potential funding from the TOC17 competition
Organisation Name

- Sean Harrison – Managing Director
- Sean.Harrison@railsafetysolutions.com
- 07880 035866
- W: railsafetysolutions.com

Elevator Pitch

- RSS assist NR & Contractors to gain greater and safer track access when ALO working.
- Reducing the amount of train disruption whilst maintaining safe productivity by utilising existing equipment and approved methods of working.
- Working with NR, TOC’s and contractors to create collaborative approach to undertake work activities to improve productivity, reduce cost whilst maintaining the safest railway in the EU.
Elevator Pitch

- SilverRail provide real-time journey planning, pricing, reservation and ticket issuing software to RDG and TOCs
- Theme of most interest “Minimal disruption to train services”
- Considering innovations around smart ticketing, Pay-As-You-Go ticketing, delay compensation, passenger information and routing
- Seeking TOCs and others to partner with.
Advance Passenger Facial Recognition on Next Generation Telecommunication Solution
Thank you