

# WORLD **RAIL** **FESTIVAL**

**#RAILFESTIVAL**

13-14 November 2018, Amsterdam

## **DIGITAL ADVISORY BOARD REPORT: PART TWO**

The background of the lower half of the page is a vibrant purple gradient. Overlaid on this is a complex network diagram consisting of numerous bright, glowing nodes (some appearing as starbursts) connected by thin, white lines, creating a web-like structure that suggests digital connectivity and data flow.

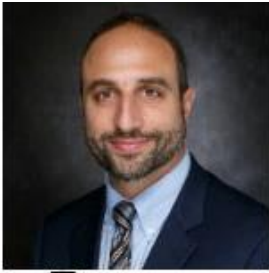
To celebrate the incredible speakers who will be joining us at the 8<sup>th</sup> Annual World Rail Festival in Amsterdam, we have put together a Digital Advisory Board.

The World Rail Festival is the leading industry event focusing on the digitisation of the transport business model, commercial growth, innovation and customer service across the rail, bus and urban mobility sectors.

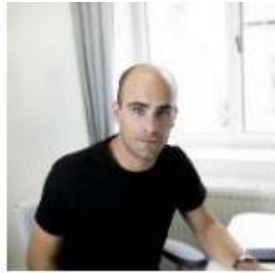
We have confirmed digital leaders from the likes of Deutsche Bahn, Greyhound, SJ and Amtrak to give you a fascinating and unique insight into the latest digital trends and projects going on in the industry.

As a bonus, all Advisory Board members will be examining, discussing and debating these topics in person at the World Rail Festival in Amsterdam 13<sup>th</sup>-14<sup>th</sup> of November. Find out how you can secure your pass for the event here: [www.terrapin.com/conference/rail-festival/](http://www.terrapin.com/conference/rail-festival/)

These digital leaders have worked with us very closely to ensure our agenda is at the forefront of the latest digital and strategic trends of 2018, focusing on issues that are critical to the industry. This report gives you a taster of the high-level discussion that you can be part of at the Festival in 2018.



**Joshua Schank**  
Chief Innovation Officer  
LA Metro



**Radek Maca**  
CTO  
Leo Express



**Egle Radvile**  
Director of IT  
Lithuanian Railways



**Jenny Gejke**  
Head of Digital Channels  
SJ (Swedish Rail)



**Chris Tibbets**  
Head of Group Digital Solutions  
National Express



**Sovan Shatpathy**  
CTO  
Amtrak



**Anu Muurinen**  
Director, Retail and Travel  
Accenture



**Pascal Lannoo**  
Head of Customer Experience  
Voyages-sncf.com



**Hessel Dikkers**  
CIO  
NS



**Todd Koch**  
VP Strategy & Business Development  
Greyhound



**Marcus Frantz**  
CIO  
ÖBB



**Patrik Horny**  
VP of Board, Director of Economy & IT  
Slovak Rail



**Manuel Gerres**  
Managing Director Digital Ventures &  
Head of New Digital Business  
Deutsche Bahn

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## Pascal Lannoo

### Head of Customer Experience, Oui SNCF



*"It starts from the booking process until the traveller gets back home delighted, no part of it may be considered as being not exciting: the whole journey deserves enhancing digital technology."*

#### **What do you see as the main role of the IT department within a rail operator?**

The IT Department is a partner who enables a seamless, enjoyable journey as real-time data is nowadays fully part of the travel experience.

#### **Which areas of the passenger experience do you see as the most exciting and unexplored when it comes to integrating digital technology?**

Each journey has to be defined as a continuum experience. It starts from the booking process until the traveller gets back home delighted, no part of it may be considered as being not exciting: the whole journey deserves enhanced digital technology.

#### **What are the biggest challenges in terms of rethinking current processes and building digital into a rail operators DNA?**

Mobility is changing at the pace of software, not infrastructure. Technology's complexities must become invisible. The customers point of view is the right paradigm.

#### **Which other industries do you tend to look towards for digital inspiration, and what can the railway industry learn from these sectors?**

Any other industry may have inspiring takeaways. Adapting best practices from other industries is the path to enchantment. Some industries are champions in terms of customer time management, alerts, the use of user generated contents.

#### **What is the digital vision for your railway?**

Digital and real-time data are part of the journey to transform each travel into a personal experience.

#### **What is your favourite gadget that you own or would like to own?**

I already own it and it is not a gadget: my smartphone.



## Radek Maca

### CTO, Leo Express



*"To integrate and cover all inputs and outputs of the whole system. Beginning with passengers and lasting with maintenance. All in one."*

#### **What do you see as the main role of the IT department within a rail operator?**

To integrate and cover all inputs and outputs of the whole system. Beginning with passengers and ending with maintenance. All in one. This is the only way to be more dynamic.

#### **Which areas of the passenger experience do you see as the most exciting and unexplored when it comes to integrating digital technology?**

To become a passenger transportation real-time utility. Similar to data transportation via the internet - you don't care whether your data flowing through LTE radio, optical wires, or submarine cables, etc. You just want to get your data to the destination, as fast as it can and as reliably as possible. The same could be in passenger transportation - multimodal, any-time, as fast as possible.

#### **What are the biggest challenges in terms of rethinking current processes and building digital into a rail operators DNA?**

To level the big difference between different lifecycle periods of the digital world and rolling stock. Rolling stock is now considered as an old-fashioned 20-30 years lifetime industry with similar period of launching innovation. But in digital this period is maximum of 1 year - every year new mobiles, laptops, OS, displays are introduced and launched. The whole mindset will be changed when launching new digital tech become common every year even into existing rolling stock.

#### **Which other industries do you tend to look towards for digital inspiration, and what can the railway industry learn from these sectors?**

Mobile telecommunication. There are plenty of similarities - aggregating data transfers depending on area (more people = more data transfer capacity = more rolling stock).

**What is the digital vision for your railway?**

To enable launching the latest digital technology in everyday use, either for passengers or operation.

**What is your favourite gadget that you own or would like to own?**

High efficiency on-board services for communication, entertainment and ticketing.





## Egle Radvile, Director of IT, Lithuanian Railways

### What do you see as the main role of the IT department within a rail operator?

The main role of the IT department is to yield strategic advantage for the company and to ensure maximum added value to it through IT solutions. That's why IT department must sustain strong relationships between the company's strategic goals and IT and be more cognizant of how the company creates value while developing IT solutions for new business value and growth.

### Which areas of the passenger experience do you see as the most exciting and unexplored when it comes to integrating digital technology?

Taking into account digital technology, there are two challenging areas right now - to develop E2E solutions and introduce autonomous trains for incredible passenger experience. E2E solutions should reimagine the entire customer experience starting from planning, booking, paying and going on managing the entire journey through the single platform including online assistance, navigation, entertainment and communication.

The main challenges are to ensure interoperability between different transport operators and introduce always connected solutions between vehicles, operators and passengers.

No less important or challenging a task is to introduce autonomous driving which could change the way of travelling, transportation and businesses operate from the ground.

### What are the biggest challenges in terms of rethinking current processes and building digital into a rail operators DNA?

The main challenges which we face right now while introducing business digitalization are these one:

- The traditional attitude that the IT centre is responsible only for the supervision of computer equipment. People often don't realize that the IT centre is one of the main drivers which could introduce the strategic advantage of company. According to this, the required attention to IT isn't paid.



*"Our digital vision for the railway is to transform the way we do business now, offering the best in class digital solutions, new ways of working, thinking and unforgettable experience for our clients while maximizing add value of our activities."*



- A lack of creative and fast learning people. The main digital opportunities are in the areas which are totally new so we must learn, adapt and innovate faster than ever before.
- Inner resistance to changes. People are usually connected to the old way, they fear the unknown and don't want to change the status quo.

**Which other industries do you tend to look towards for digital inspiration, and what can the railway industry learn from these sectors?**

The main industries which are highly digitized across most dimensions are information and communication technology, finance and insurance, also advanced manufacturing, railway. From these sectors could learn how to streamline processes, apply automatization to them and bring some robotic technologies, not forgetting tools for big data analytics and the application of mathematical models for operations.

**What is the digital vision for your railway?**

Our digital vision for our railway is to transform the way the business is doing right now, offering the best in class digital solutions, new ways of working, thinking and unforgettable experience for our clients while maximizing the added value of our activities.

**What is your favourite gadget that you own or would like to own?**

I love open source, but for a corporate solution I prefer corporate platforms.





## Joshua Schank, Chief Innovation Officer, LA Metro



*"Most exciting, is how we can create a seamless experience for customers whereby they simply input where they want to go and everything is simple from there on out."*

### **What do you see as the main role of the IT department within a rail operator?**

IT at a rail operator is primarily a support function. But it is a support function that must have a mechanism for consistent interaction with the private sector, and a method of procurement that enables constant innovation, because technology changes so quickly.

### **Which areas of the passenger experience do you see as the most exciting and unexplored when it comes to integrating digital technology?**

Most exciting is how we can create a seamless experience for customers whereby they simply input where they want to go and everything is simple from there on out. They can pay their fare, have perfect information about vehicle arrivals, access security if necessary and find where they are going all without even trying.

### **What are the biggest challenges in terms of rethinking current processes and building digital into a rail operators DNA?**

Rail operators tend to think in terms of moving vehicles instead of people. Putting people first and tailoring the system to their needs is critical to success.

### **Which other industries do you tend to look towards for digital inspiration, and what can the railway industry learn from these sectors?**

In every industry there is a leader with an impeccable reputation for fun jobs and customer service. Southwest Airlines, CarMax, Enterprise Rental Car, etc. They all have in common the fact that their employees are happy and customer needs come first.

### **What is the digital vision for your railway?**

Not sure we have a digital vision. We have a vision focused on customer service and mobility, and it is not restricted to digital or our railway.

### **What is your favourite gadget that you own or would like to own?**

Boeing 787



## Sovan Shatpathy CTO, Amtrak



*“Digital transformation as the primary driver reshaping our customer and employee experiences across the entire value chain”*

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### **What do you see as the main role of the IT department within a rail operator?**

In today's world technology is pervasive in the transportation industry and rail operators are no exception to the rule. Whether it's the customer or the employee or even partners, technology plays a critical and enabling role in ensuring that business outcomes are met. Information technology plays a critical role when it comes to the overall customer experience, employee productivity, train operations and the overall business of running the corporation. In a rail operator specifically, all customer facing systems such as reservation systems and all digital channels need to work seamlessly. Beyond that when it comes to the running of the trains it's essential that operations and safety systems work in harmony. Last but not the least, technology enables a secure enterprise for operating trains and moving customers to their destination today and every day.

### **Which areas of the passenger experience do you see as the most exciting and unexplored when it comes to integrating digital technology?**

One of the key areas in passenger experience which has tremendous opportunities starts when the passenger has bought the ticket through one of the many digital channels and arrives at the station. How can we make the experience for the passenger seamless while waiting for the train? How can we make it compelling when on board the train is ripe for disruption with digital technologies? Everything from potentially providing a digital map in the handheld device to the appropriate platform, potentially allowing for pre-ordering of food and beverage, providing seamless access to infotainment on-board and beyond are opportunities areas. While on-board train providing multi modal connectivity options when the passenger arrives at station, allowing for welcome refreshments per passenger choice once at the destination etc. are all opportunities. Beacons, NFC and beyond are enabling technologies which can provide the foundation for an immersive and compelling passenger experience which can make every passenger a net promoter for the rail operator.

### **What are the biggest challenges in terms of rethinking current processes and building digital into a rail operators DNA?**

Rail operators tend to have a range of legacy systems, especially when it comes to core business processes such as finance, HR, procurement, safety, train operations among others.

Thus, when we start to look at introducing digital into this space, we need to be careful that we do not disrupt to such an extent that we break something which is working and drives business. Thus, business process re-engineering needs to be based on driving innovation at the edge. In other words, clearly identify your systems of record, systems of integration and systems of interaction. Drive innovation leveraging digital technologies at the interaction layer by extracting data from legacy systems which normally tend to be systems of record. In the process creating an API economy for the integration layer goes a long way in creating foundation for digital transformation.

### **Which other industries do you tend to look towards for digital inspiration, and what can the railway industry learn from these sectors?**

Hospitality and retail over internet are industries which have a high degree of focus on customers, these are industries we do look at terms of what they are doing to innovate on a daily basis and drive customer adoption and retention. In these industries we see a high degree of focus on customer centricity, with a laser focus on providing simple, compelling, intuitive digital tools which drive stickiness quotient when it comes to adoption. They also provide a high degree of value added services for loyal customers which tends to manifest itself in digital channels in terms of compelling offers and other value driven capabilities. The rail industry can definitely benefit by learning the unwavering focus on customer these industries have which in turn drives a high degree of loyalty.

### **What is the digital vision for your railway?**

In a few words our digital vision is "Digital transformation as the primary driver reshaping our customer and employee experiences across our entire value chain ". We are looking to transform and evolve both inside out and outside in when it comes to our systems and processes. We see the adoption and evolution to be a Digital First organization cutting across the vectors of people, process and technology. Culture of the organization and how we evolve it to be the champion of this transformation will ultimately define the barometer of success.

### **What is your favorite gadget that you own or would like to own?**

In the near future I would like to own an Augmented Reality and AI driven gadget, it could be in the form of a wearable like eye glass or something along those lines. I am hopeful as AR, AI and quantum computing become more pervasive this gadget of mine will be the single stop shop for everything I need on a day-to-day basis blending the real world with the augmented world. Along the way I am hopeful I will not need to use the smart phone as all its features would be subsumed by this new gadget!



## Chris Tibbets

### Head of Group Digital Solutions, National Express



*"We need to be pushing new thinking and new skillsets into our organisations so that we can demonstrate agility, courage, experimentation and ultimately customer loyalty and satisfaction."*

#### **What do you see as the main role of the IT department within a rail operator?**

The main role of IT is as a service provider to a business's internal and external customers. They should be seen as the evangelists of change and support the business on this journey.

#### **Which areas of the passenger experience do you see as the most exciting and unexplored when it comes to integrating digital technology?**

With connectivity, both in the stations and trains now available and reliable, and with mobile technology now pervasive, it's got to be delivering real time, personalised and relevant information to our customers, and to our employees who serve those customers.

#### **What are the biggest challenges in terms of rethinking current processes and building digital into a rail operators DNA?**

Rail is a highly regulated industry. Something as simple as using tablets for drivers, allowing for the removal of paper manuals that have to be carried around, for example, requires layers of approvals from the different internal and external parties. The fragmented nature of rail operations makes it difficult in many areas for us, as a franchised operator, to implement cutting-edge solutions.

Legacy – in technology but also in people and processes. To change process to become fully digital requires new ways of working and sometimes different skills than today, whilst remembering we still have a railway to run. However, we must at the same time respect the resistance to change especially in a heavily unionised industry like rail. This is often seen as a rail companies "immune system" that prevents us from taking too large risks. Safety is the most important for any transportation business and this should never be put at risk.



**Which other industries do you tend to look towards for digital inspiration, and what can the railway industry learn from these sectors?**

We look to tech companies and disruptive users of technology like Google, Airbnb and Uber. These companies have internalised the lessons of adaptability and have harnessed them to drive their businesses.

We can learn from them and the way they go about their businesses. To more deeply understand how they think and how they behave, time should be spent at every level from our board, executive and senior leadership to understand how various technology companies are learning together as a team.

If we are to push through this digital disruption, we need to start shaping how we see the future of our business in every area, be it safety, operations or customer service. We need to be pushing new thinking and new skillsets into our organisations so that we can demonstrate agility, courage, experimentation and ultimately customer loyalty and satisfaction.

**What is the digital vision for your railway?**

As a business across all our transport sectors and not only rail we think about how digital – and technology – can help National Express do what we do safer, better, faster, and easier. Our IT and digital teams are completely embedded with our marketing, customer service, operational and revenue management teams, looking to help them achieve their goals.

**What is your favourite gadget that you own or would like to own?**

My favourite gadget is my Fitbit Ionic



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Contact Adam Hayward now  
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 to secure your position

