



**#RAILFESTIVAL**

13-14 November 2018, Amsterdam

**DIGITAL ADVISORY  
BOARD REPORT:  
PART ONE**

The background of the lower half of the page is a vibrant magenta color. It features a complex, abstract network of thin, white lines connecting numerous bright, glowing white nodes. The nodes are scattered across the field, with some appearing as larger, more intense light sources, creating a sense of 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 experience across the rail, bus and urban mobility sectors.

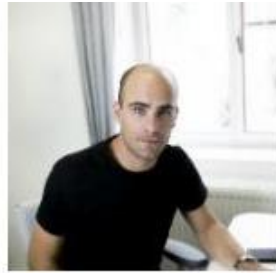
We have confirmed digital leaders from the likes of Deutsche Bahn, Greyhound, SJ and Amtrak to give you a fascinating and unique insight into the latest digital trends and projects going on in the industry.

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)



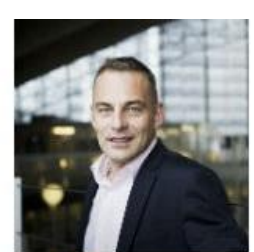
**Chris Tibbets**  
Head of Group Digital Solutions  
National Express



**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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## Hessel Dijkers

### CIO, NS



*"The transformation to a data driven organisation is the most exciting journey."*

#### **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 optimize the train-operation and customer experience with IT.

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

The transformation to a data driven organisation is the most exciting journey. How to optimize the assistance of our passengers, train drivers etc.

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

The IT potential is enormous. The big challenge is in our operational staff; they have to adopt the technology and other ways of working.

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

Airlines, car industry.

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

Strongly oriented around our customers. We want to assist our passengers in their journey from door to door in the best possible way.

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

My running watch. I love to get loads of data about running.





**Marcus Frantz**  
CIO, ÖBB



*"The main focus and core value of a rail operator is safety and security."*

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

Enabling the most efficient business operations based on appropriate technology chosen, considering future developments and consequently consulting business in the inclusion of those developments.

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

The seamless travel experience including planning, scheduling, performing and closing the travel, including the payment process.

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

The main focus and core value of a rail operator is safety and security. We need to open up this mindset and enable a more agile and innovative approach where we do not have all the answers right from the beginning. Meaning creating and strengthening the digital mindset.

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

There are several industries that we have to look for and learn from. Starting from general travel and transportation via automotive into retail business.

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

Connected Mobility! Under this umbrella we defined our Digital Business Strategy, stating our Mantra's "Simply – Connect – ACT" as well as our focus areas "Connected traveller" – "Connected logistics" – "Connected Assets" – "Connected Operations" and "Connected Company". For each of those we did define business KPIs stating what we want to achieve as an outcome.





## Jenny Gejke

### Head of Digital Channels, Swedish Rail



*"Personally, I find all new technology that are emerging within the health sector and for example, bio-hacking, very exciting."*

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

A catalyst and an expert in making sure that all the foundations and infrastructure is in place that the rest of the company can use to build competitive digital services on.

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

There are a lot of areas where we can see that we can improve the passenger experience. One example is giving best in class support and information to our passengers throughout their whole journey and making sure we provide them with actionable and relevant communication during disturbances.

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

A core issue is to make sure that we have our processes, our data and our information models aligned across the whole company. Collecting, aggregating and using data in an effective way to improve our efficiency and building better services to our customers is essential for future success.

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

We follow of course the whole transportation sector but retail also has really interesting solutions that we can find inspiration from. Of course, we look at the big tech digital solutions that we are will use.



## Manuel Gerres

### Managing Director Digital Ventures & Head of New Digital Business, Deutsche Bahn Digital



*"Humans and the computer will almost become one tightly-coupled cognitive unit to easily take most effective and complex decisions in fraction of seconds."*

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

The IT department has to know which technology trends are coming in the next years and should develop an IT system with AI components which is flexible enough to react shortly on the consumer needs.

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

Artificial intelligence can do just about anything. The AI will organize and book your trip, check-in and will give you individually advices how you can use your time in the train efficiency.

Humans and the computer will almost become one tightly-coupled cognitive unit to easily make the most effective and complex decisions in fraction of seconds.

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

The biggest challenges are:

- Connecting the AI with the process so that AI can learn from it and will become the brain in the near future
- Implement machine Learning
- Creation of intelligent rail infrastructure
- Use of command and control systems for managing the network





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

The E-Commerce industry was disrupted by eBay and Amazon.

The Telecommunication Industry was disrupted by Skype.

The Media Industry was disrupted by Facebook, YouTube, Instagram, Twitter etc.

The learnings are: destroy your own business and be focused in business analytics, social media integration, mobile technologies, cyber security, on demand business etc.

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

Our vision is to become the world leading mobility and logistic company in the world.

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

Definitely my iPad!





## Patrik Horny

### VP of Board, Director of Economy & IT, Slovak Rail

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

- Keeping the IT systems stable
- Taking over the initiative and leadership in promoting new technologies within the firm as the majority of innovations have information technology basis/background
- Consolidating and cleaning and defence/securing the data from all the sources they have been existing in railways since the beginning but have not been consolidated and used for management decisions

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

All areas are subject to rapid change:

- Before starting the travel, the vast choices for transport have to be pre-analysed and the best transport option has to be offered to the client
- During travel: usable and effective time usage and opportunities to work, new digital business models enable the customer to get new kind of services in the train or to participate in shared economy models
- After travel: instant feedback, new services outside of the train station, personalized marketing offers, etc.

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

- The knowhow penetration of the employees is so far limited to a few people instead of thousands of staff
- The railways are NOT interdisciplinary oriented. All activities, even this festival is limited to traditional players: railways and their operators. Where are the automotive producers, health care, financial services, start-up communities, venture capital players?



*"Before starting the travel, the vast choices for transport have to be pre-analysed and the best transport option has to be offered to the client."*

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

The automotive industry and their digital change process is an example. Industry/production companies are another example (introduction of robotics and AI)

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

To be a platform player for new digital based business models, leader in the national innovation across local industries. Therefore, we initiated the local Industry Innovation Cluster covering 8 industrial corporates from 5 industries

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

Cozmo robot <https://www.anki.com/en-us/cozmo>





## Todd Koch

### VP Strategy & Business Development, Greyhound



*"We are also very focused on more real-time capabilities. Connecting with partners that can give us real time journey planning and execution."*

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

At this point our vision is that IT acts as a consultant to business to make sure that solutions and integrations are fit for purpose and architected well. Outside of that IT should manage infrastructure and ensure that our requirements to be live 100% with real time data are met.

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

For us at Greyhound, the area where we see the most critical need is real time personalized data. Being able to predict, at all customer touch points throughout their journey, exactly what the customers' expectations and needs are and providing them relevant and contextual information to make their journey with us as frictionless as possible.

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

While I am not in the rail industry, I have heard from our sister companies that they struggle with legacy network rail systems that may not be flexible enough or house enough data to make such an experience possible. I also think that companies such as trainline who have such a huge presence in the rail market technically own the customer and many of the rail operators have become commodities rather than full service providers. Owning your own customers is critical to being able to provide them a frictionless experience.

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

Given their sheer scale, US legacy airlines have progressed tremendously in digital and have some really good experiences. Where I think about amazing personalization, I really look to the retail industry.

They compete solely on understanding you, your needs, and then personalizing your shopping experience to drive the biggest basket and to bring you back time and time again.

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

For our business, as you can tell from my previous answers we focused heavily on personalization. Making their entire trip with us engaging. Buy-in station-on bus-after trip. We are also very focused on more real-time capabilities. Connecting with partners that can give us real time journey planning and execution. As well as ancillary services that make using our brand easier. For example, parking integrations, hotel, events, etc.

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

My current project is Google Home and integrating my family with it and automating as many process of its capabilities.







## Anu Muurinen

### Director, Retail & Travel, Accenture



*"Win the hearts of customers and elevate your services to become the trusted travel partner and companion for customer's personal mobility needs."*

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

IT has traditionally been seen as the back-office cost creating function together with Finance and HR. Many IT organizations have worked hard to create the relationship within their business unit alignments to be the partner and enabler of business transformations by supporting the development programs as one stream in the bigger development program. Now in the era of digital transformations and Industrial X.0 IT has the potential to be the provider of business innovation when rail operators need to start their new ecosystem thinking. Collaboration and co-creation across the entire organization is key and IT department plays an important role in it.

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

Moving beyond your own omni-channel system to 'anywhere', i.e. creating a seamless service flow between your own digital and physical touchpoints as well as the partner ecosystem through which the customer journey evolves. One current challenge from the travel industry as a whole is that they have done very little to support the planning phase of your personal mobility needs since 15 years ago when the OTA's (Online Travel Agencies) introduced their web sites. Since then travel needs and habits have evolved and customers are not (only) looking for price comparison between different operators. A more holistic Door-to-door planner that would not only provide the travel logistics solutions but by applied intelligence suggest anything that you would value to be added in your travel journey to become an experience and not just a logistics from A to B.

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

Organizations with a century+ history have created traditions and a culture that is difficult to disrupt when you need to innovate and re-invent yourself. In order to have both speed and scalability in your digital development you need to involve people from different parts of the organization to make it work.



Breaking these organizational silos and putting the customer (experience) in the heart of not only customer service, marketing & sales but planning, operations and finance divisions too, is a challenge.

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

Leisure and travel have been longer focusing on ancillaries and experience and Retail for customer loyalty and retention so Disney and Uniqlo are a few examples where digital innovation plays an important role. Digital inspiration comes from very different sources and nowadays our customers have 'Liquid Expectations' that span a cross industries where they compare the Spotify, Uber or Netflix experience to the one you offer in your rail operator services. It was hard to compete in an asset intensive business with the pure digital players but now that 'physical fights back' as Fjord trends 2018 claim, the rail operators have a good change to combine the digital and physical worlds to something that is more than their sum.

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

Win the hearts of customers and elevate your services to become the trusted travel partner and companion for customer's personal mobility needs. Railway is an eco-friendly, comfortable and efficient way of travelling so if you have your operational efficiency aligned with your customer service and all of it supported by digital tools and applied intelligence your changes for not only survival in the competition but exceeding your current status quo comes more likely scenario.

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

I love my iWatch, would love to own Extended Reality (VR, AR) devices and thinking beyond personally owned small gadgets I can't wait to test out Hyperloop.



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