

Successful UIC Railway Digital Platform Kick-off Conference in presence of UIC members and representatives of the digital ecosystem

How railways can benefit from digital developments

"Share, Connect, Open"!

(*Paris, 1 December 2015*) On 30 November, the International Union of Railways officially launched the UIC Railway Digital Platform in the presence of more than 250 participants, including CEOs of UIC Members, representatives of railway research and railway activities, heads of digital activities within railway companies, journalists, etc. The conference was also available via streaming so that representatives of the digital ecosystem could follow the conference through a live broadcast and ask the speakers questions.

The interconnection of persons and objects through the Internet weaves a close connection between the real world and the digital world, causing structural changes in the relationship with our environment. The digital world brings with it new challenges in the company's relationship with its customers, its staff and its ecosystem.

Mr Jean-Pierre Loubinoux, UIC Director General, in his opening address said:

"Since the 19th century railways have been a cause and a consequence of the industrial revolution. And they have grown internationally at the service of society. Today in the 21st century they must be an actor and a vector of the digital revolution, with a world dimension. Railways can better share information, open services and connect people at the service of humanity".

He highlighted the ongoing mobility revolution, with quantum leap evolutions in passenger experience (sharing economy, permanent connectivity, mobile first, ...) and industry 4.0 (Internet of Things allowing predictive maintenance and transforming manufacturing processes, equipment of maintenance workers with mobile devices, ...) by mentioning that railways have unevenly embraced this revolution.

Presentation of the "Digital core team"

A Digital core team, set up to develop digital guidelines connected to the UIC Platform, and which will develop a BIM – Building Information Model – led by Mr **Yves Tyrode**, met prior to the conference to define the objectives and guidelines. Among them there are:

- Mr. SHI Weizhong (CARS), Executive Vice President of CARS
- Mrs. LI Qin (CARS), Deputy Director of Research Management Department of CARS
- Mr. SHI Tianyun (CARS), Director of Institute of Computing Technology of CARS
- Mr LIU Jun, Senior Researcher of Institute of Computing Technology of CARS
- Mr. Andy Doherty, ERRAC Chairman, Director Network Rail
- Mr. Mohamed Rabie Khlie, Director General of Moroccan Railways ONCF, Chairman of UIC Africa
- Mr. Yves Desjardins-Siciliano, CEO of Canadian Railways Via Rail, Chairman UIC North America
- Mr. Francisco Cardoso dos Reis, Director International Affairs, Infrastructure Portugal IP

Why launch a digital platform?

Mr Yves Tyrode, leading the UIC Railway Digital Platform at UIC, presented the major digital trends such as Connectivity, Internet of Things, Big Data, Digital Platforms, Industry 4.0 and autonomous driving. He then described what digital is and why it is different from other processes, functions (internet rules, speed, agility, openness...).

He said: "Digital is a strategic issue. I would like to thank the core team (CARS, ONCF, Network Rail, KTZ, CP, Via Rail) for its involvement in this new activity. Our objectives are to help share best practices amongst ourselves and help connect members with start-ups, where innovation actually happens. Our method is openness; we want this platform to be a community, of which I will be the community manager. The platform will not execute projects on behalf of the member, will not creates rules and regulations, ... Furthermore, the platform will foster innovation, help members activate their projects and their contacts with the digital community. Based on your feedback and our experience, six topics we want to cover first and foremost: Data, Passenger experience, Connectivity along the travel path, Internet of Things (IoT) – Maintenance 4.0, Freight 4.0, Cyber-security."

He also presented the benefits of including digital in the value chain. Opportunities all along the value chain (internal and external) were mentioned – whilst allowing for the expected risks. In the "greater global digital context", UIC must prove itself able to meet its members' needs, both now and particularly in the future, by:

- furthering the leading-edge dimension of its research activities at global level and maintaining a vision

- developing tools/actions/projects which allow UIC to continue supplying added value and global reach

In terms of trends, **Mr Moundir Rachidi**, from the Boston Consulting Group (BCG), presented examples and illustrations demonstrating how to perform with digital and how to make changes in companies by adapting culture, conducting pilot projects, making mistakes, ... and using an ecosystem approach.

Feedback from UIC Members

Mr Thierry Bera, UIC, presented the results of an online survey completed by 185 members worldwide. Among the five key outcomes, we can mention:

- "Innovation booster": digital is perceived as the way to innovate, create new habits and patterns – internally as well as for customers by using new connected technologies

- Awareness & internal organisation: most companies are aware of the digital impact that these technologies have created in our consumer habits

- Smartphone Apps & social media are the two main developed digital supports

- Digital is considered to be more than a communications tool: these technologies are identified as contributors to the new generation of R&D applied to the railway area

- Among the most relevant project themes are mobile applications, e-ticketing, the internet of things, multimodal travel, digital security...

Thierry Bera concluded by listing the unmet needs and resources: -44% of companies have not yet introduced digital tool developments such as apps; one in two companies still do not use reliability equipment or a maintenance optimisation system. Digital skills need to be met through expert guidance. A collaborative digital platform for sharing ideas and prototyping would address this unmet need.

Concrete examples of successful digital developments

Mr **Brogan Benbrogan**, Co-funder of Hyperloop, presented through video messages the main guidelines of the Hyperloop project – without forgetting the freight dimension – as an example of an innovative initiative and disruptive project which is currently "totally reshaping our industry". He added "Yes we want to work with the rail industry… but we need worldwide expertise and the UIC Digital Railway Platform could be the perfect partner for what we are doing".

Mr Ludovic le Moan, CEO of Sigfox, focused on the Internet of Things and showed the participants a video on augmented reality. He said: "We have to provide connectivity. For me, this is the grail, we are working on it".

"Share, Connect, Open"

Yves Tyrode concluded by inviting participants to realise how dynamic, fast moving and agile the digital space is. As a consequence, "we need our platform, "Share, Connect, Open", to act upon the digital world principles and rules. He added: "*What we will do is:*

- Create a community platform that is simple and efficient, leveraging existing tools, so we can share our concerns, our progress and our ideas
- Build a "marketplace" (better name to be found) to connect with state-of-theart start-ups, to help us drive our agenda and our priorities
- Launch a "start up challenge" initiative, where the winners will be awarded with the right to perform POCs with some of ourselves
- Select initiatives, through an ideation context, on which members will join forces"

For this, the UIC Digital Railway Platform will meet three times a year. In early 2016, the platform will launch a start-up challenge which will award winning start-ups in December 2016 in St Petersburg during the UIC General Assembly.

Mr Jean-Pierre Loubinoux concluded by saying: "We are opening a new era of creativity. Digital is at the service of everything. This platform has to be at the service of all the UIC Platforms, of all UIC Members, and ultimately at the service of society. We want to develop its activities with the motto "Share information, open data, source, innovation, services, connect people, objects" with an immediate link with security. We are becoming actors and vectors of our security. The future is outside, let's work with brains!"

The main highlights of the conference are available on the UIC website: <u>http://www.uic.org/digital-platform</u>

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