



INTERNATIONAL UNION
OF RAILWAYS

unity, solidarity, universality

SFERA (Smart communications For Efficient Rail Activities)

ERESS Forum– 25th May 2016

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Final Goal

- Reduce energy consumption & costs through standardization of digital language used by connected Driving Advisory Systems (c-DAS) (reduce technical barriers for the exchange of data and prices)



Use of DAS in Europe is very low (1-3%)
There is a large potential for expansion leading to energy & cost savings
Standardization is needed to assist market uptake of the best technology; c-DAS (in preference to DAS level 1)

- conclusion of the Eco-driving, DAS and ATO Workshop at UIC on 10th February 2016

Added Value

- **What's in?**
 - Data exchange between trains and traffic management, in case of disturbed traffic in order to improve energy consumption and punctuality
- **How will this develop the future European railway system?**
 - Standardized language is needed by traffic control to manage multiple operators, or operators using different DAS systems
 - Standardization will allow the development of more DAS products, improving efficiency and performance whilst reducing costs

Project duration and financial advantages

- 3 years (2017, 2018 and 2019)
- Financial benefit: Supporting c-DAS deployment
 - Current energy traction costs for EU rail sector about 6,000 million Euros per year
 - Connected-DAS leads energy reductions between 8% and 12%. A reduction of 5% will result in an annual saving around 300 million Euros.
 - SFERA project will support the deployment of connected-DAS systems

What it looks like - TrAppen running on Android tablet

Orders from Transport administration management for train number 711

Eco Driving section

Surrounding traffic section Present train, number 711

General overall information for train number 711

TrAppen presentation UIC Paris February 10th

INFRABEL
Région Op. Train

Project Migratie

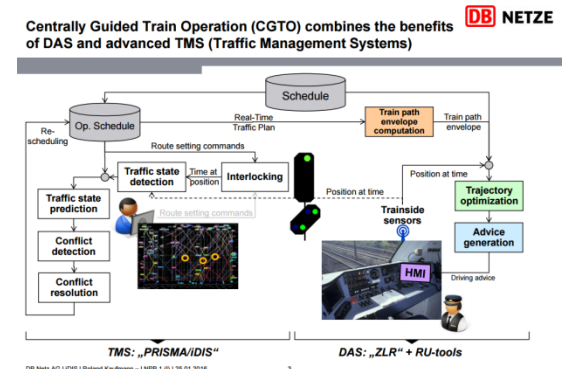
2 pilots already in place

Mons

Hasselt

10th feb 2016

DASIATO potential for energy savings - UIC HQ Paris



Planned strategy for implementation

- Main actions to obtain the standard will include:
 - To identify data exchange formats
(from previous projects, On-Time, Capacity for rail, etc..)
 - Interviews with key stakeholders
 - Working group to define technical requirements
 - To create a standard for data exchange
 - To review and approve the final output within the frame of the Working Group
- International Railway Standard (IRS) will be the final outcome of the project
- All the inputs on the topic are welcome

Interested Members

- Support of main UIC groups on energy efficiency
 - EES Platform (Willy Bontinck , Chairman)
 - Energy Efficiency and CO2 Experts Network
- 8 UIC members have already expressed their technical interest to develop the project
- For additional interested UIC members, please contact castanares@uic.org
- Final decision and next steps of the project will be approved by the end of the year

■ ■ ■ Thank you for your kind attention!

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