SBB Cargo International

# Digitalisation between customer needs, regulatory demands and operational requirements

Martin Schmidt, Project Manager, SBB Cargo International AG, Switzerland

**18th Florence Rail Forum**
How to Revitalise Rail Freight with Digitalisation?
8 November 2019

# SBB Cargo International

## Facts and figures



| | |
|---|---|
| **Shareholders:** | SBB Cargo AG (75%)<br>Hupac AG (25%) |
| **Focus:** | Cross border rail transport on RFC RALP,<br>Combined transport / block trains |
| **Certificates:** | DE, CH, IT and NL |
| **Market Position:** | Largest rail freight operator in transalpine<br>rail freight in CH (2018)<br>3rd largest rail freight operator in DE (2018) |
| **Transport Performance:** | 11.356 billion net ton kilometers (2017)<br>About 750 trains per week |
| **Sales 2018:** | CHF 327.9 Mio. |
| **Locomotives:** | 145 |

# Digitalisation
## Definition

- Digitalisation = Digitisation

> **Digitalisation** is the process of converting information into a digital (computer-readable) format.
>
> en.wikipedia.org (CC BY-SA 3.0 Unported License)

- Not only paper into computers → it needs new processes and ideas

> **Digital Transformation** is the use of new, fast and frequently changing digital technology. [...] Some of these digital solutions enable - in addition to efficiency via automation - new types of innovation and creativity, rather than simply enhance and support traditional methods.
>
> en.wikipedia.org (CC BY-SA 3.0 Unported License)

- Digital Transformation not a single company project
- → **Needs the connection of digital data, standards for data exchange and process harmonisations.**

# Digitalisation
## Needs & Requirements



Customer:

- Quick and accurate information about train runs
- A reliable expected time of arrival (ETA)



Infrastructure Manager:

- Receive necessary, required, defined data



Railway Undertaking:

- Efficient data exchange with partners / customers
- One standard way of digital communication
- Reduce costs for interfaces

# Digitalisation

Examples actual situation: National differences don't allow an European software implementation.

- PCS as international path ordering tool
  - "Works like a digital fax machine"
  - Many countries with national parameters;
    examples for RFC 1: min Belgium with 0 and max 27 in Germany

- Path ordering process
  - One general date to order the yearly timetable
  - Different processes in every country, what and how you can order

- Brake calculation
  - Differences in Germany, Switzerland, Netherlands and Italy – but the physical wagons run trough

- Train Composition Messages (TCM)
  - Only the name is the same
  - The announced German version is different from the Netherlands version and the French version

➔ **More cooperation within the whole sector needed.**

# TAF TSI in planning
## A Solution?

- ☑ European Standard for technical railway communication

- ☑ IMs agreed to put TAF/ TAP TSI into action by 2024

⚠

→ IMs consider TAF/TAP TSI as a basis
with national specific requirements added

→ Consequently national interfaces are not compatible with each other anymore

→ **TAF TSI one technical standard is needed**

## Cooperate for one standard, otherwise we are facing the ETCS fate!

# TAF TSI

➔ Sustainable standard needed
one pure standard, consecutive evolution
cooperation needed (→ adapt national rules and improve standard)

➔ No national processes – European unification of processes

➔ Transparency and clear responsibility

➔ Auditing + Certifications by ERA for implementation of the pure standard

**Only the focus on a pure standard with clear responsibilities and auditing will make TAF TSI sustainable successful.**

Thank you for your attention.