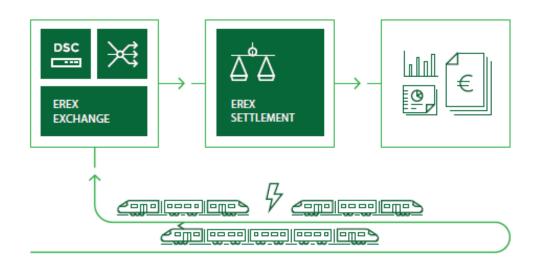


# Train run information standardisation Gunn-Helene Krogstad, Eress

Rome June 13th 2018

## **Railway Energy**

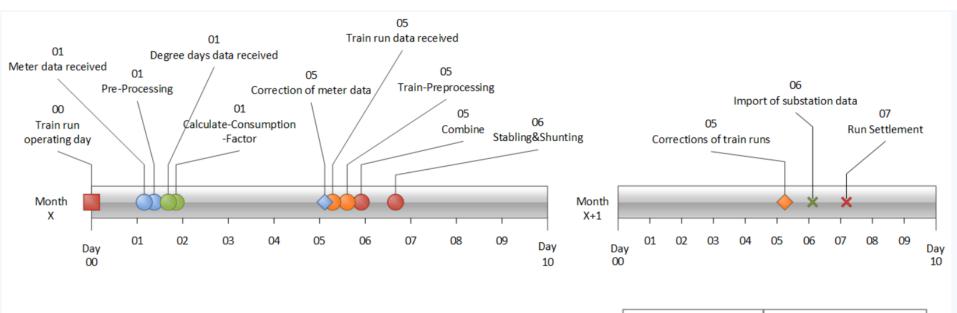
Erex in the energy data chain



#### Planned train run data introduced to Infrastructure owner 05:06:26 - 07:22:07 07:25:20 - 08:23:01 01.05.2018 Train run 124484 Train run 124484 02.05.2018 05:02:17 - 05:31:28 05:31:40 - 05:58:01 05:58:09 - 06:28:41 06:28:39 - 06:52:01 06:52:46 - 07:22:08 07:25:20 - 07:49:14 07:50:09 - 08:23:17 EVN1, EVN2 EVN1, EVN2 EVN1. EVN2 EVN1, EVN2 EVN1, EVN2 EVN1 EVN1 03.05.2018 05:01:21 08:24:31 04.05.2018 ome 0000 0000 EVN1 EVN1 EVN2 05.05.2018 Δ Δ 06.05.2018 Metered energy data DSC × read (CEBD) SETTLEMENT 07.05.2018 EXCHANGE 08.05.2018 Actual train run data 05:06:26 - 07:22:07 07:25:20 - 08:23:01 received to Erex Train run 124484 Train run 124484 09.05.2018 10.05.2018 05:02:17 - 05:31:28 05:31:40 - 05:58:01 05:58:09 - 06:28:41 06:28:39 - 06:52:01 06:52:46 - 07:22:08 07:25:20 - 07:49:14 07:50:09 - 08:23:17 EVN1, EVN2 EVN1, EVN2 EVN1, EVN2 EVN2 EVN2 EVN1, EVN2 EVN1, EVN2 11.05.2018 05:01:21 08:24:31 12.05.2018 0000 0000 EVN2 EVN1 EVN2

eress

# The process in Erex train run settlement

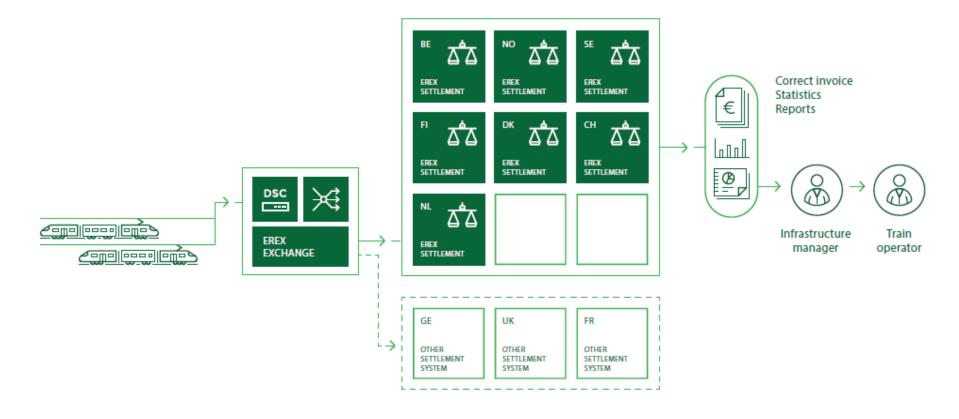




Timeline shows day 00 to 0X where x is number of days from train run operating day

eress

### **Railway Energy Data Flow**



# Eress Train run data standardization workshop February 19<sup>th</sup> 2018

#### **RECOMMENDATIONS AFTER GROUP DISCUSSIONS:**

#### 1 EVN (European vehicle number) is needed for each traction unit.

#### Why? For correct energy billing purposes it is important to:

- identify the actual traction unit
- correctly invoice the actual company who has consumed energy

#### How can Infrastructure Managers get the actual/correct EVN?

- IMs should ask RUs to send it according to the TAP/TAP TSI
- The EVN should be mandatory on a national level
- IMs should give up to 3 days to RUs for updating & providing the final and correct ENV, in case of last minute changes

eress

#### 2 GPS location should be Ok, but is not always of good quality

#### GPS should be used:

- to validate train run data
- as additional information

# Eress Train run data standardization workshop February 19<sup>th</sup> 2018

#### RECOMMENDATIONS AFTER GROUP DISCUSSIONS CONTINUE

#### 3. Ownership and accessibility of train energy data

- Should be described in the Network Statement (according to the non-paper)
- RU which consumes energy should own and have access to its data
- Vehicle keeper that consumes energy should own and have access to its data
- Need to agree & standardize who should be invoiced for energy between train runs (stabling & shunting)
  - In Eress, it's the RU who will have the next train run
  - DB Energie was allocating it to the vehicle keepers, but they don't want to pay for it
  - ÖBB is splitting it 50/50

#### 4. Network statement

 Should refer to the TAF/TSI standard and include EVN number as part of the train composition that should be reported by RUs

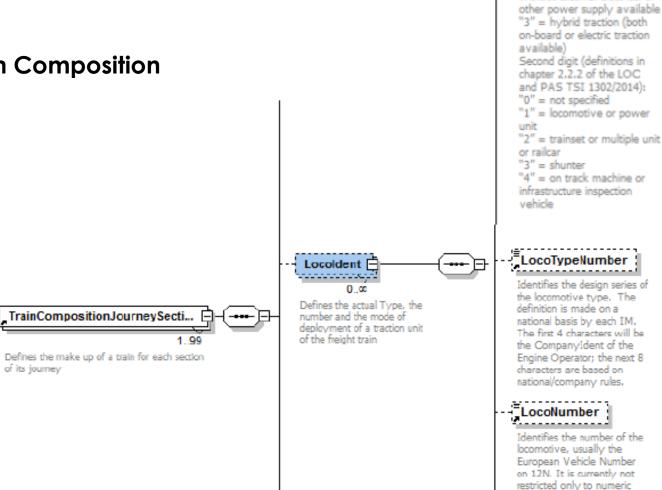
#### 5. Data interfacing should be:

as automatic as possible

### Train Composition and Loco Identification ERESS workshop - 19/02/2018

Excerpts of TAF and TAP RU/IM xsd data model related Train Composition and Loco Identification according to version 2.1.8 available on :

#### (Freight) Train Composition Message



eress

TractionType

locomotive: First diait: "0" = not specified "1" = external electric power supply for traction (catenary

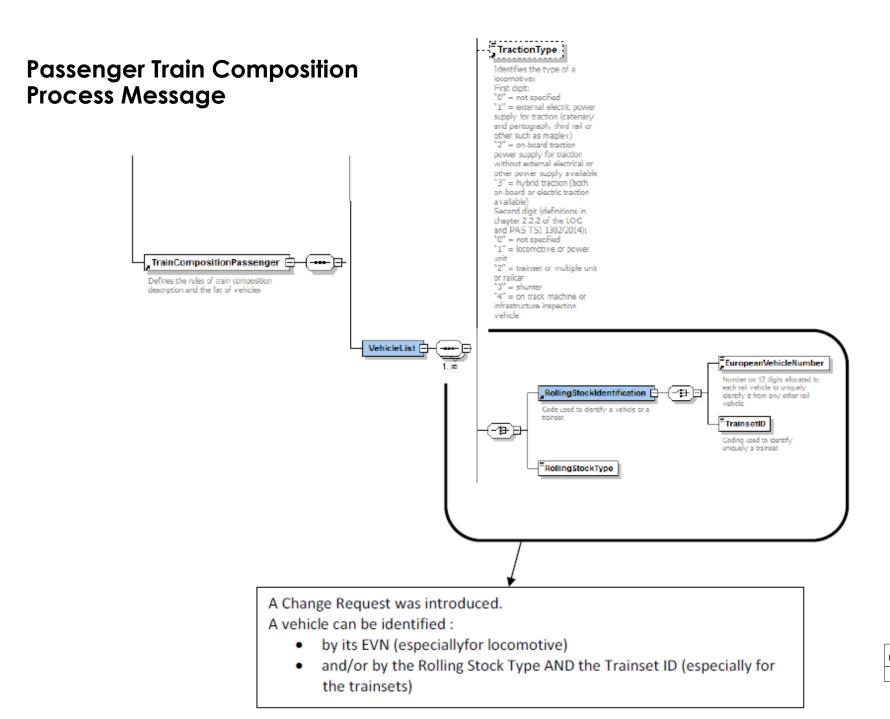
values.

Identifies the type of a

and pantograph, third rail or

other such as maglev) "2" = on-board traction

power supply for traction without external electrical or



eress

# Ready today for the railways of tomorrow

