



INTERNATIONAL UNION
OF RAILWAYS

Current Landscape of Language initiatives

Parinaz Bazeghi

Senior Advisor , UIC

Agenda

- Regulation framework and operation challenges
- Current Landscape of Language initiatives and related sector activities
- Translate4Rail main concept and overview

Why is language an important topic in rail freight?

According to the EU Commission Directive, train drivers are required to have a B1 level in the language of the relevant Infrastructure Manager(s).

**DIRECTIVE 2007/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2007
on the certification of train drivers operating locomotives and trains on the railway system in the Community**

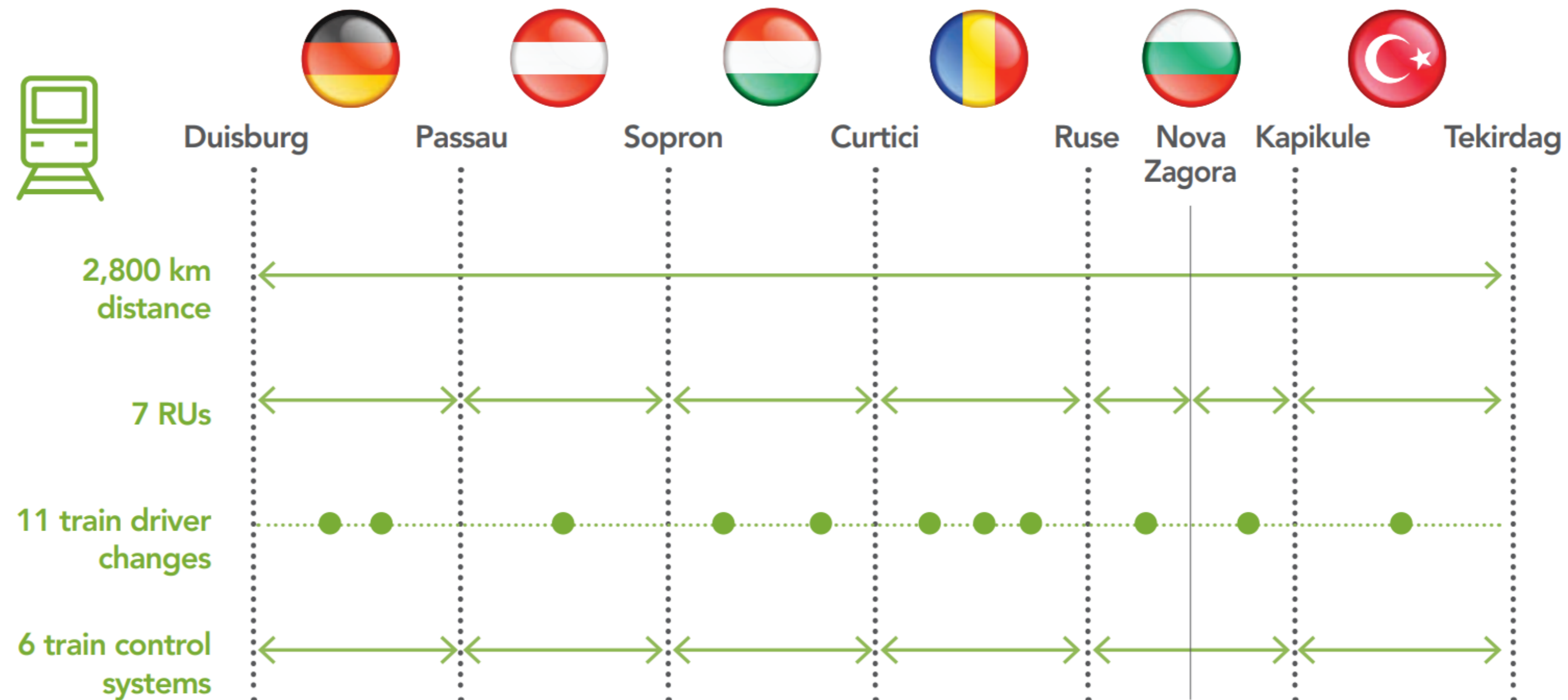
“Drivers who have to communicate with the infrastructure manager on critical safety issues must have language skills in the language indicated by the infrastructure manager concerned. Their language skills must be such that they can communicate actively and effectively in routine, adverse and emergency situations.”

COMMISSION REGULATION (EU) 2019/554 of 5 April 2019 amending Annex VI to Directive 2007/59/EC

“In order to satisfy the requirements provided for in paragraph 1, drivers must be able to understand (both orally and in writing) and to communicate (both orally and in writing) according to level B1 of the Common European Framework of Reference for Languages (CEFR) established by the Council of Europe.”

What are the challenges?

- Inefficiencies in international rail traffic → cause delays and increased costs
- Recruitment challenges → result in higher training costs and longer onboarding times
- Green Deal target (30% modal share by 2030) → requires an increase in cross-border rail traffic
- Accidents (e.g., Rastatt 2017) → language barriers hindered rerouting through France, leading to reduced resilience, slower response times, and loss of market share



Current Landscape of Language initiatives and related sector activities

Translate4Rail

KITT Project

DigiForm

ATHENA/ODICEO

SFERA

BEATE



Speech/Text to
Speech

*Tablet based,
PDM Mapping,
Machine Learning,*

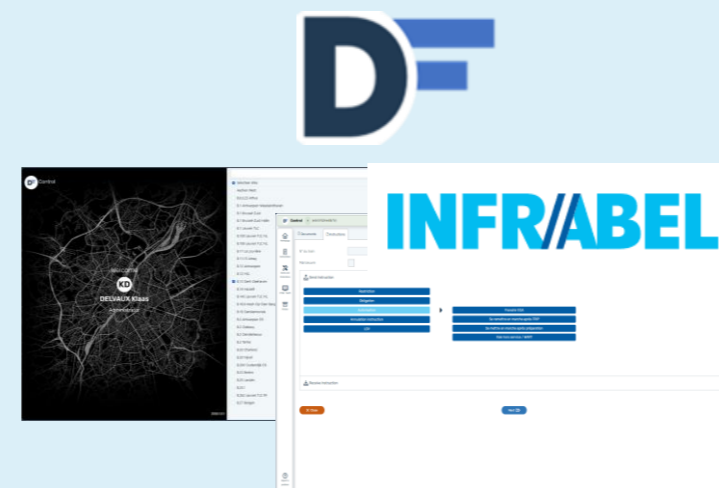
**Oral
communication**



Speech to
Text/Speech

*GSM-R based,
Cloud Services,*

**Oral
Communication**



Text to Text

*Web application,
Pre-defined Forms,
Instructions,*

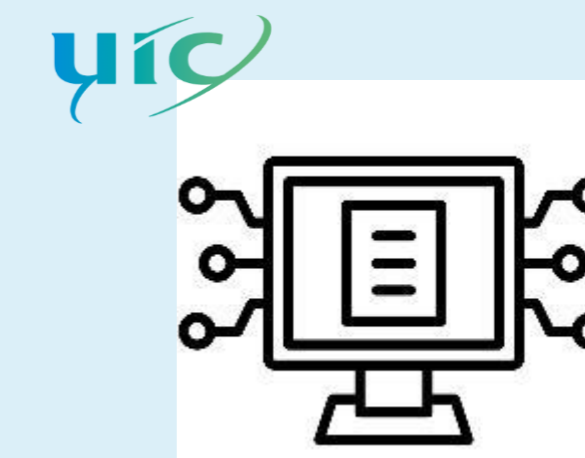
**Written
Communication**



Text/Speech to
Text/Speech

*Web application,
Pre-defined Forms,
Free Text (SNCF AI),*

**Written and Oral
Communication**



Text to Text

*Free Text
(Translation might be
added)*

**Data exchange
Protocol**



Text/Speech to
Text/Speech

*Web application,
Speech to Speech
over cell phone*

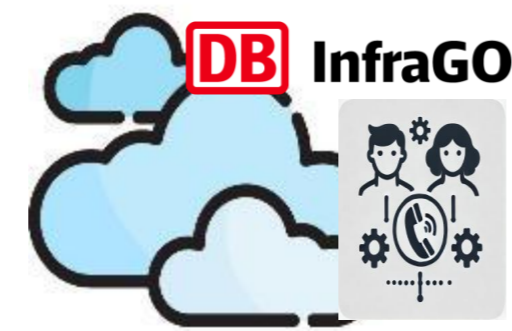
**Written and Oral
Communication**

Technology

Current Landscape of Language Tools



Translate4Rail



KITT Project



DigiForm



ATHENA/ODICEO

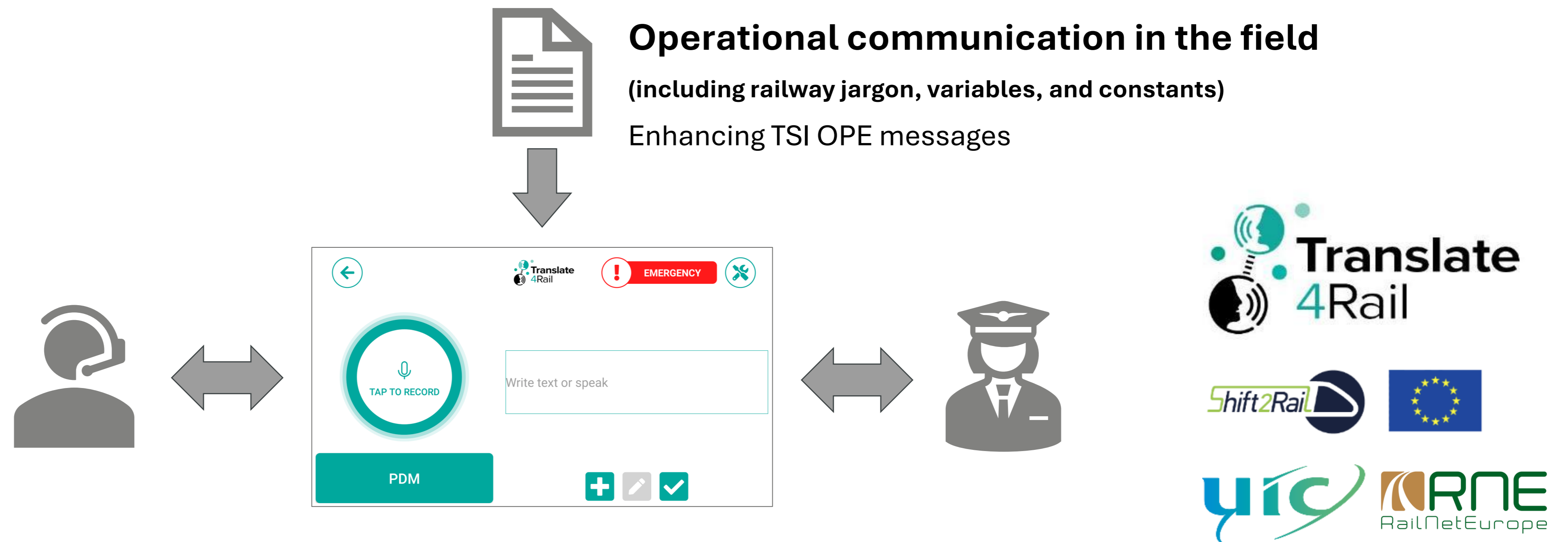


BEATE

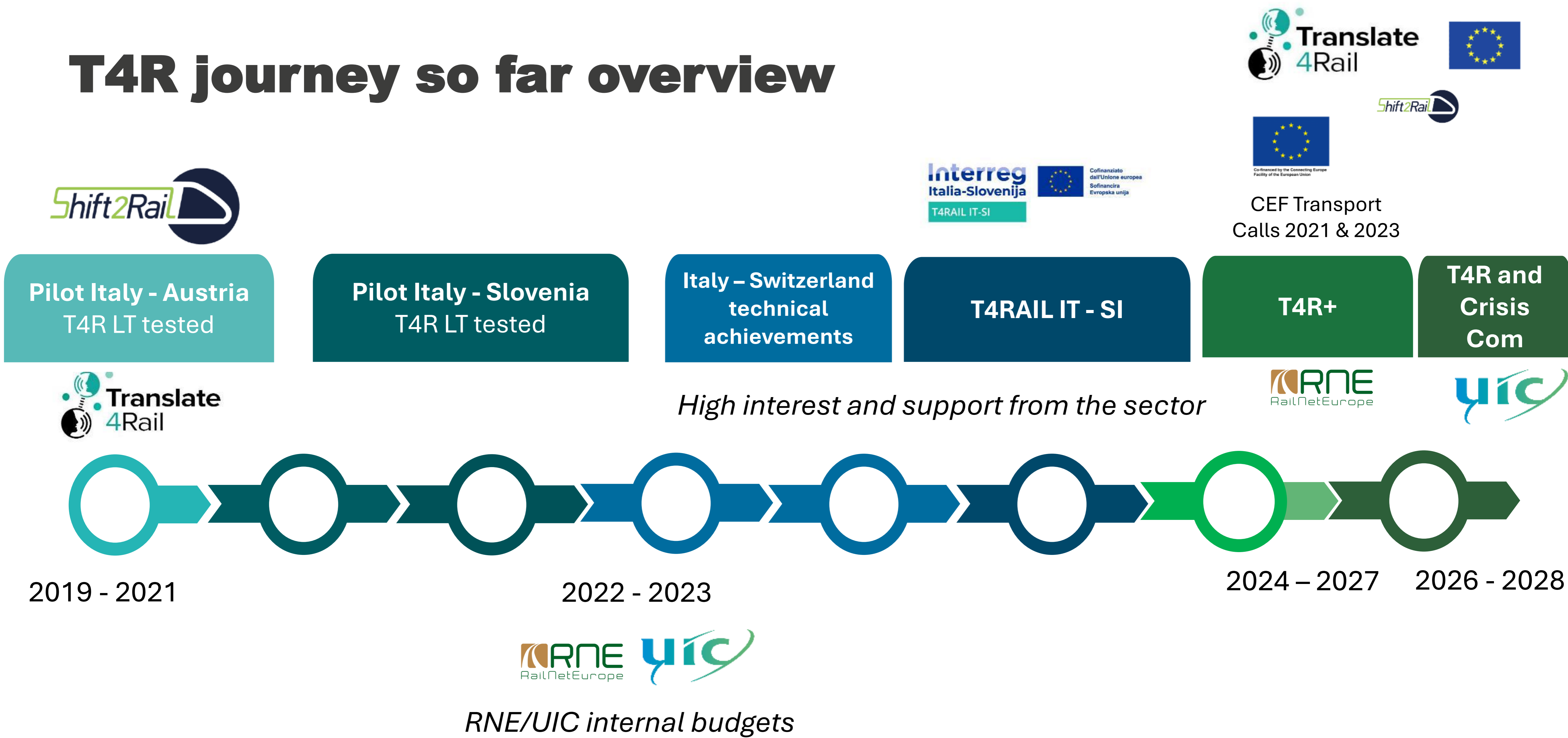
	Translate4Rail	KITT Project	DigiForm	ATHENA/ODICEO	BEATE
Pilots	<p>Italy - Austria (2021)</p> <p>Italy - Switzerland (TBC)</p> <p>Italy - Slovenia (on-going)</p>	<p>Germany – France (Saarbrücken & Kehl on-going)</p>	<p>Germany - Belgium</p> <p>Luxembourg - Belgium</p> <p>Netherlands - Belgium</p>	<p>France - Spain (On-going)</p> <p>France - Germany (March)</p>	<p>Austria - Czech</p>
Use cases	<ul style="list-style-type: none"> • IM-RU • IM-IM • RU-RU (future) 	<ul style="list-style-type: none"> • IM-RU • RU-RU 	<ul style="list-style-type: none"> • IM-IM • IM-RU (under development) 	<ul style="list-style-type: none"> • IM-IM • IM-RU (future) 	<ul style="list-style-type: none"> • ?
Languages	<p>IT,DE,FR,RO,SI</p>	<p>FR-DE</p>	<p>BE,DE,FR</p>	<p>FR,SP,DE</p>	<p>DE (AT), CZ</p>

Translate4Rail main concept

- Enabling operational communication in the field between a train driver and a traffic controller;
- Addressing B1 language competence acquisition.



T4R journey so far overview





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Thank you for your attention

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