



The Use of Translation Tools on Locomotives

Some challenges from a practical point of view

Deutsche Bahn AG | Annette Kraus | Corporate Language Management | Firenze | 2019-11-08

Our Purpose:



How Corporate Language Management supports the DB Group on its path towards digitilisation

Corporate Language Management

ensures good language quality within the Group and supports all business units in their multilingual activities

- Harmonises (foreign) specialist language and corporate terminology
- Plans, procures and monitors translation and interpretation services
- Utilises various IT tools and systems to this end - including machine translation
- Balances the typical needs of rail production processes with the expertise and typical requirements of linguists (=Quality!)



Annette Kraus

Head of Corporate Language Management

At DB since 2002, initially in Corporate Marketing and International Business Development;
Head of Corporate Language Management since 2013.

Aim of my presentation today

A specific vision: the use of translation tools on locomotives

1. Show how this vision can become reality – as well as some hurdles that we still must overcome
2. I will be limiting my focus here to linguistic elements
3. And finally: I'd like to consider how this vision can be realized within our existing structures



Vision: With a translation tool in the loco driver's cab, loco drivers would not need foreign language skills

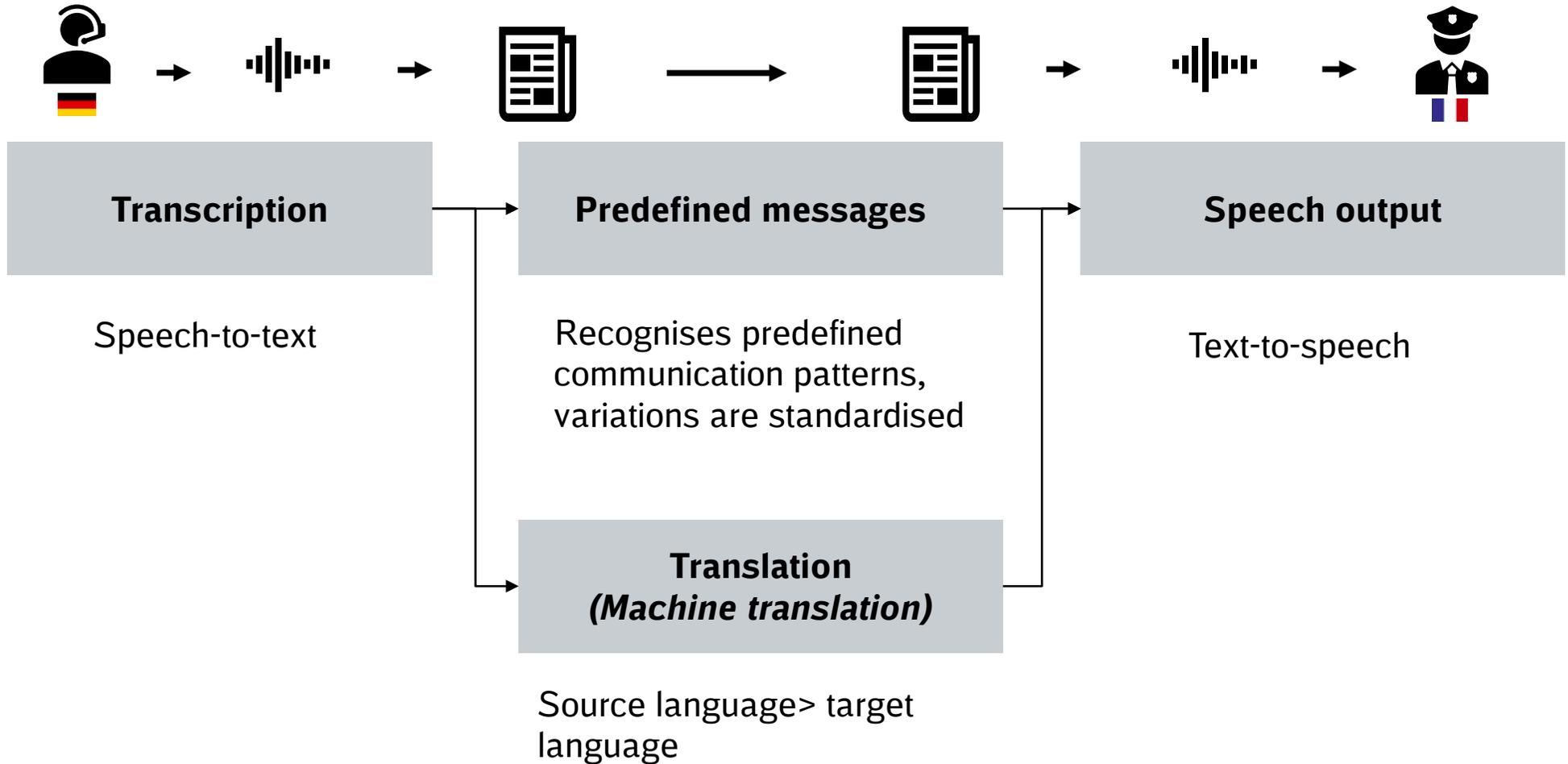
Today: Train driver or dispatcher needs to be bilingual



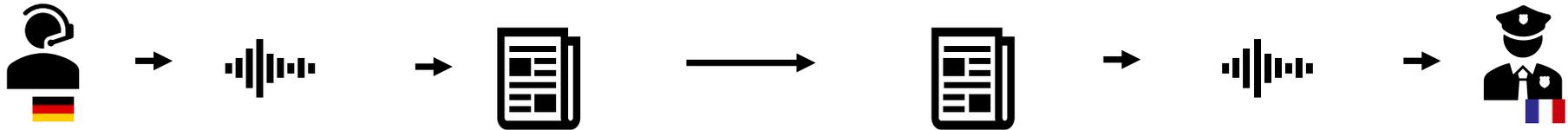
Tomorrow: IT-tool translates into the required language



The translation tool has three phases, each of which must work perfectly in itself and together with the other phases.



A look inside the black box: The main sources of linguistic errors



Transcription

- **Homophones**
agent-circulation = Fahrdienstleiter (dispatcher)
agence circulation ≈ Reisebüro (travel agency)
argent circulation ≈ Geldkreislauf (cash cycle)
- **Spelling out words**-> NATO alphabet
- **Punctuation**
We are eating Grandpa. /
We are eating, Grandpa.
- **Characteristics of speakers**
 (e.g. dialect, accent, pitch, etc.)
- **Background noise**

Translation

- **Dealing with predefined messages**
"Person im Gleis" (Men on the tracks) ≠ „Personne sur les voies“
- **Idiomatic expressions**
"Person im Gleis" vs. "Person auf dem Gleis"
- **Coherency** of information (time, km)
- **Terminology**
opposite track = voie de sense contraire
- **Style**
 Informal speech: „Kannst losfahren“
"Yu-cun drive on"
- **Source and axis language**

Speech output

- **Understandability**
- **Speed**
- **Intonation**
- **Idiomatic speech**
 Pronunciation of acronyms, groups of numbers

When will the translation tool be available? Who decides if we can use it and in what situations?

The release in rail operations depends on a successful progress on three levels - in parallel:

Linguistics
reliability in machine translation, s2t, t2s

Technical Components
reliable integration of IT

Regulation authorities
Acceptance in rail operations





Thank you for your attention.