

The STAR logo consists of the word "STAR" in a white, sans-serif font, with a stylized triangle above the letter 'A'. The logo is set against a dark red rectangular background.A photograph of a man in a white shirt holding a woman's hand, walking away from the camera on a city street at sunset. The street is lined with buildings and a red double-decker bus is visible in the distance. The scene is bathed in a warm, golden light.

Connecting your visions, technologies and customers

STAR Group

AMTA 2016 Commercial MT Users and Translators Track

Seamlessly integrating machine translation into existing translation processes (STAR MT and Transit NXT)

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Outline

▲ What customers want to know

- Can we benefit from MT?
- Is it possible to evaluate the MT system?
- MT black box and “MT psychology”:

How do we involve our translators and project managers?

Typical TM customers

▲ Existing tools

- Translation Memory / Terminology Management systems
- Workflow systems
- Third-party systems

▲ Text types

- Technical documents, software localization, legal texts, subtitling, etc.
- Structured documents
- Languages – every single one you can think of

▲ In-house translators, freelancers, LSPs

Typical MT requirements

- ▲ No extra tool for project managers, translators and “non-experts”
- ▲ Specific, customized engines
- ▲ Analysis of MT quality
- ▲ Alternative to online translation services
- ▲ No cloud solution
- ▲ Integrated use with a Translation Memory system
 - Retaining benefits of TM (pretranslation / fuzzy matches)

How do we support our (TM) MT customers?

▲ Proof of Concept for evaluating STAR MT

- **Stage 1:** Engine training and initial analysis
- **Stage 2:** Pilot phase in productive environment
- **Stage 3:** Productive analysis of pilot phase results

Stage 1 – Engine training

▲ Creation of MT training packages based on:

- Customer-specific Translation Memory
- Customer-specific terminology

▲ Deployment of pilot engine(s)

- During pilot phase: HTTPS access
- Later: MT server on customer's premises

Stage 1 – Sentence Bleu lists

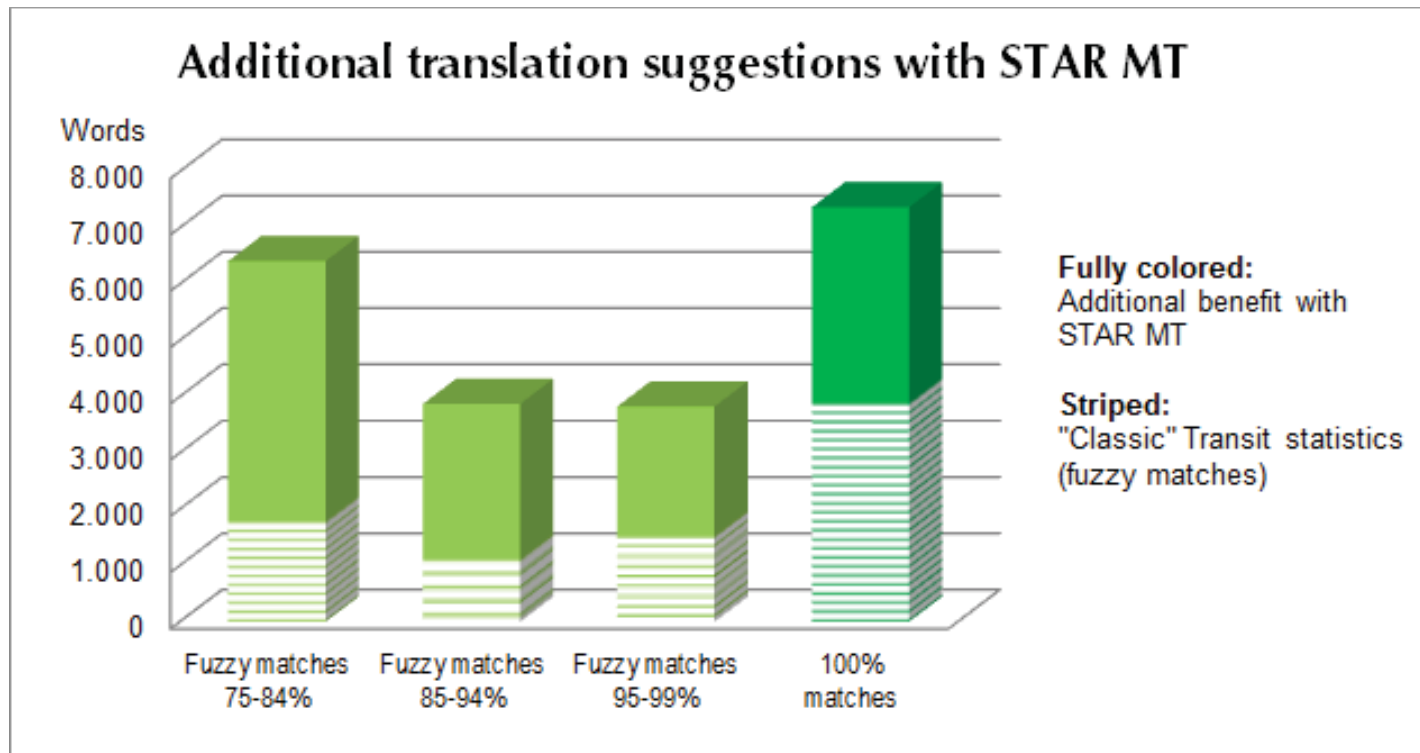
▲ First impressions of MT quality

Engine Info: Deutsche Bahn - Pilot Engine			
BLEU	Source Text	MT Output	Human Translation
0,825080	Abschließend wird der Bewerber- / Bieterkreis vorgeschlagen.	Finally, the pool of candidates / tenderers is proposed.	To conclude , the pool of candidates/tenderers is proposed.
0,815355	Fragen zur TSI PRM: Messungen der Sprachverständlichkeit 3 - RFU 073	Questions regarding TSI PRM: Measuring the intelligibility of spoken information 3 - RFU 073	Questions regarding TSI PRM: Measuring the intelligibility of spoken information 2 - RFU 073
0,783129	Die Strecke verläuft überwiegend auf Brücken oder in Tunneln - 63 von 107 Kilometer.	The line runs mainly on bridges or in tunnels - 63 of 107 kilometres.	The line is routed mainly on bridges or in tunnels - 63 of 107 kilometres.
0,753922	Wir schätzen sie als zuverlässige, pflichtbewusste und ehrliche Mitarbeiterin.	We appreciate it as a reliable, conscientious and honest employee.	We value her as a reliable, conscientious and honest employee.
0,668740	Ungültiges Datum - TT.MM.JJ	Invalid date - DD.MM.YY	Invalid date - TT.MM.JJ

Stage 1 – Initial analysis

- ▲ Analysis of productive jobs of the last 3 to 4 months that have been translated without MT support
 - Jobs are translated again with MT (pretranslated segments excluded)
 - MT results are compared with human translations

Stage 1 – Initial analysis



Example: Initial analysis for one of our customers (“Technology” division)

Stage 1 – Initial analysis

Division	100% matches	Fuzzy matches	No matches	Pretranslated
IT	+244%	+286%	-17%	remains as is
Company	+112%	+86%	-10%	
Technology	+89%	+215%	-24%	
HR	+84%	+115%	-6%	
Legal	+84%	+61%	-4%	
Traffic	+81%	+132%	-13%	
Finance	+27%	+109%	-25%	
CEF	+13%	+113%	-19%	

Examples: Initial analyses for one of our customers (all divisions)

Stage 2 – Involving everyone in the process

▲ On-site workshop for all stakeholders

▲ Involving all translators, who:

- are informed at an early stage about the planned MT system
- receive a feedback sheet with queries regarding:
 - project topic and text type
 - “perceived” benefit and “perceived” quality
 - linguistic and terminological quality

Stage 2 – Integration into existing processes

▲ One-off adjustment of:

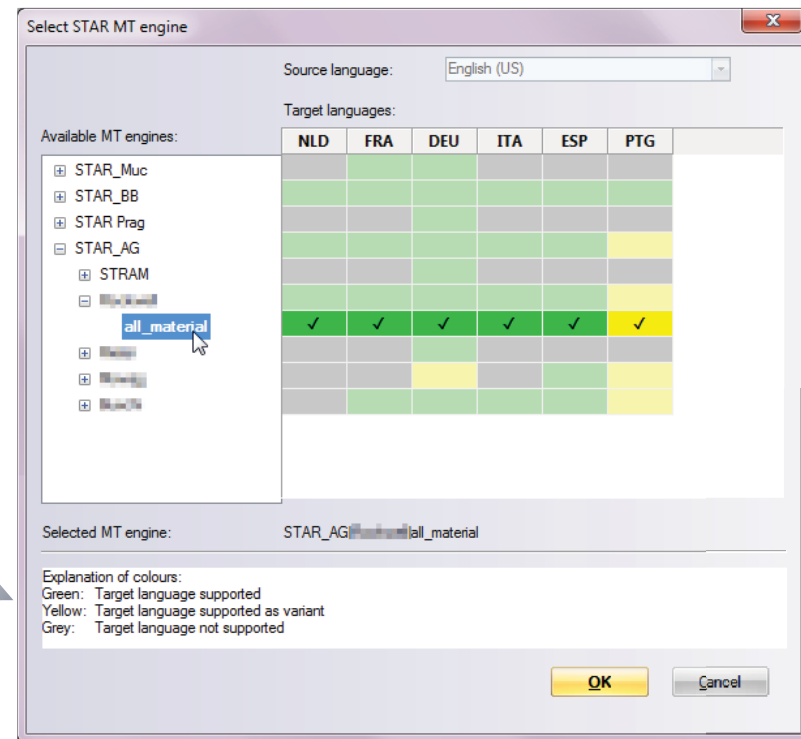
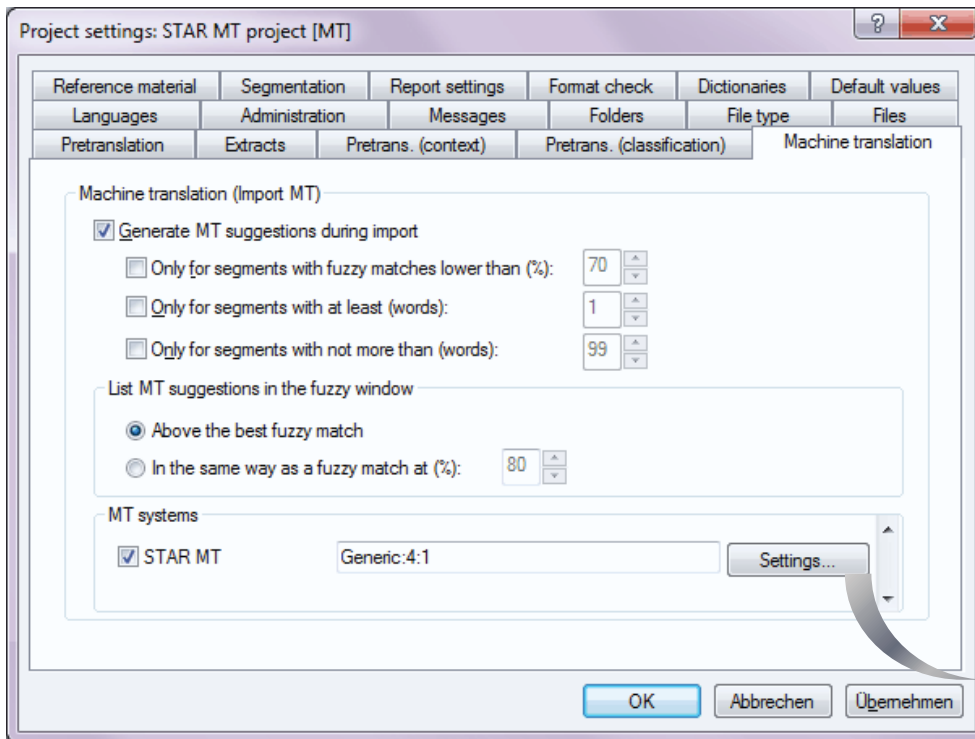
- project templates (manual translation processes)
- workflow settings (automatic translation processes)

▲ Project management steps remain the same

▲ In Transit, MT suggestions are automatically:

- generated during project import
(for all segments that have not been pretranslated)
- packed into the project package during project exchange

MT project settings in Transit



Stage 2 – “Look and feel” for translators

- ▲ No additional tool and no access to MT engine required
- ▲ Work in the Transit editor as usual
- ▲ MT suggestions:
 - are provided with the project package
 - are displayed and used like fuzzy matches
- ▲ MT quality assurance
 - formal checks, terminology, markups, translation variants, etc.

“Look and feel” for translators

- ▲ Instead of “No fuzzy match found”:

		c1005_3_dhm_appguide
		carbon steel.
430		In materials with an uneven structure when chip breaking problems
432		More advantageous for long-series production. <1-inb>
434		Uniform and extremely long workpieces.

		c1005_3_dhm
430	*	In materials with an uneven structure when chip breaking problems
432		More advantageous for long-series production. <1>
434		Uniform and extremely long workpieces.
436	~	Nécessite une machine spéciale de forage de trous profonds.

Source Fuzzy		
		Machine Translation (Import MT)
New		More advantageous for long-series production. <1>
MT		Plus avantageux pour long-series production. <1>

- ▲ Markups are automatically inserted
- ▲ Untranslated words are indicated

“Look and feel” for translators

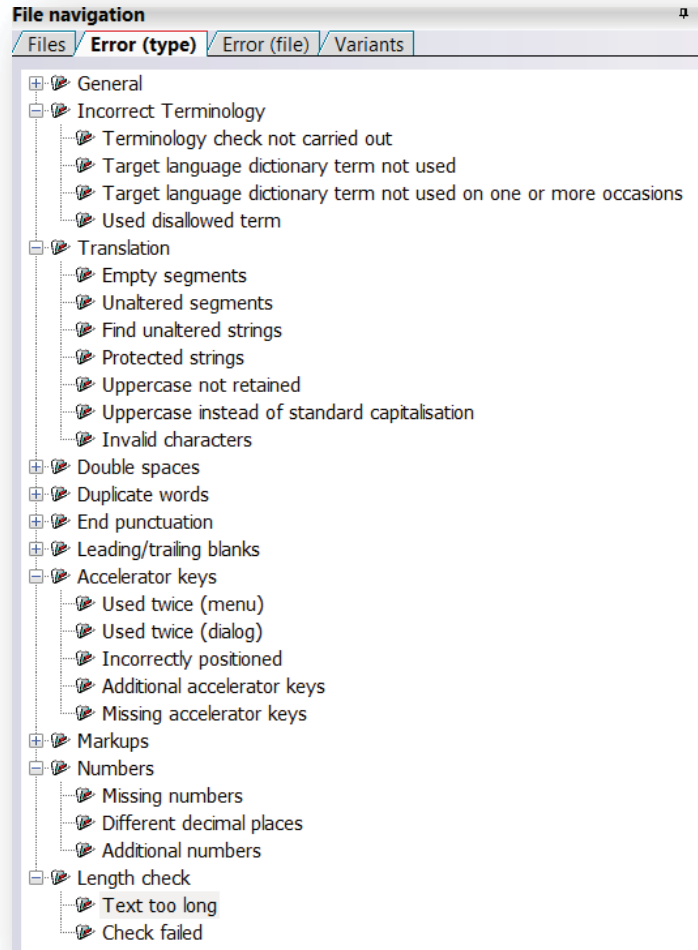
- ▲ In addition to fuzzy matches:

Source Fuzzy	
	Machine Translation (Import MT)
New	Ergebnisse zu den zuginduzierten Drucklasten neben dem Gleis
MT	Results for the train-induced pressure loads in addition to the track
87%	D:\Transit NXT\projects\MT\3184_16_TSI Zulassungen SET Hrach_deem\15-21427-T.TV
Ref	Ergebnisse zu den zuginduzierten Strömungsgeschwindigkeiten neben dem Gleis
New	Ergebnisse zu den zuginduzierten Drucklasten neben dem Gleis
Ref	Results for the train-induced flow velocities next to the track

- ▲ MT suggestion, validated by fuzzy match (TM):

Source Fuzzy	
	TM-validated MT
New	Highest material removal rate
	Débit copeaux maximum

Quality assurance of MT-translated segments



- Formal errors are displayed in the “File navigation” window
- Spelling checks based on MS Office speller, reference material and/or dictionaries
- Source / translation variants check
- Segment filter for MT-translated segments

Stage 2 – Web application (STAR MT Translate)

▲ Allows specific evaluation of MT quality by language experts

- Direct access to pilot engines
- Translation of individual sentences or paragraphs

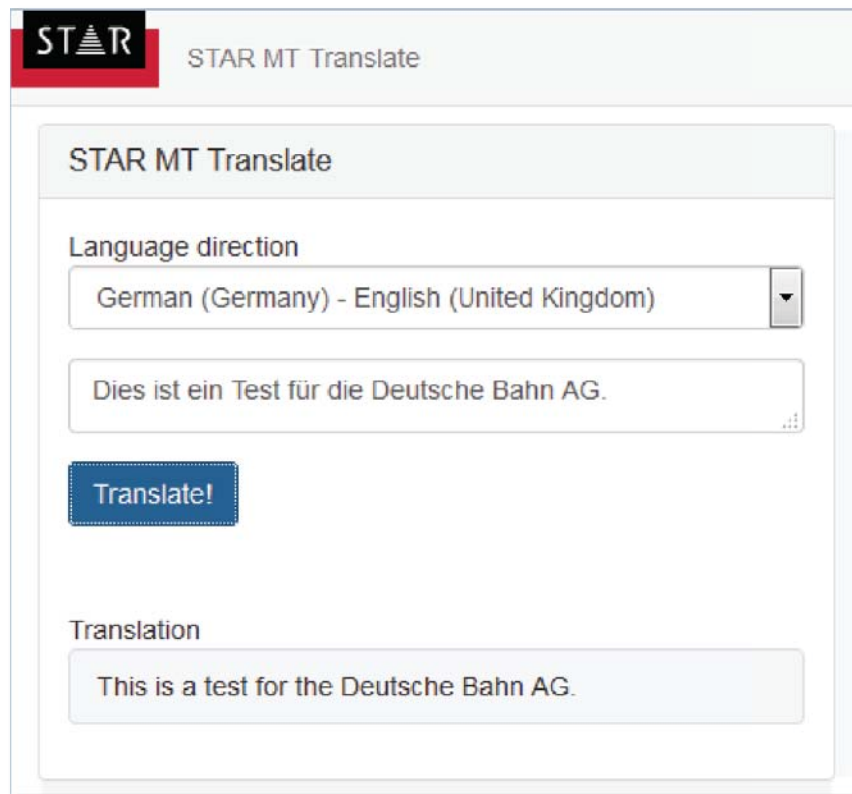
▲ In general:

Alternative to online services (also for “non-experts”)

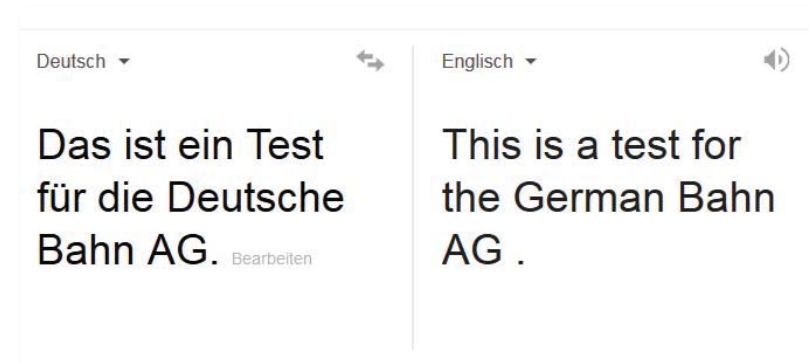
- Confidential corporate data stays “in-house”
- Translations use style and terminology of corporate language
- Translation of entire documents (Office, PDF)

An example

STAR MT Translate:



Google Translate:



Stage 3 – Productive analysis

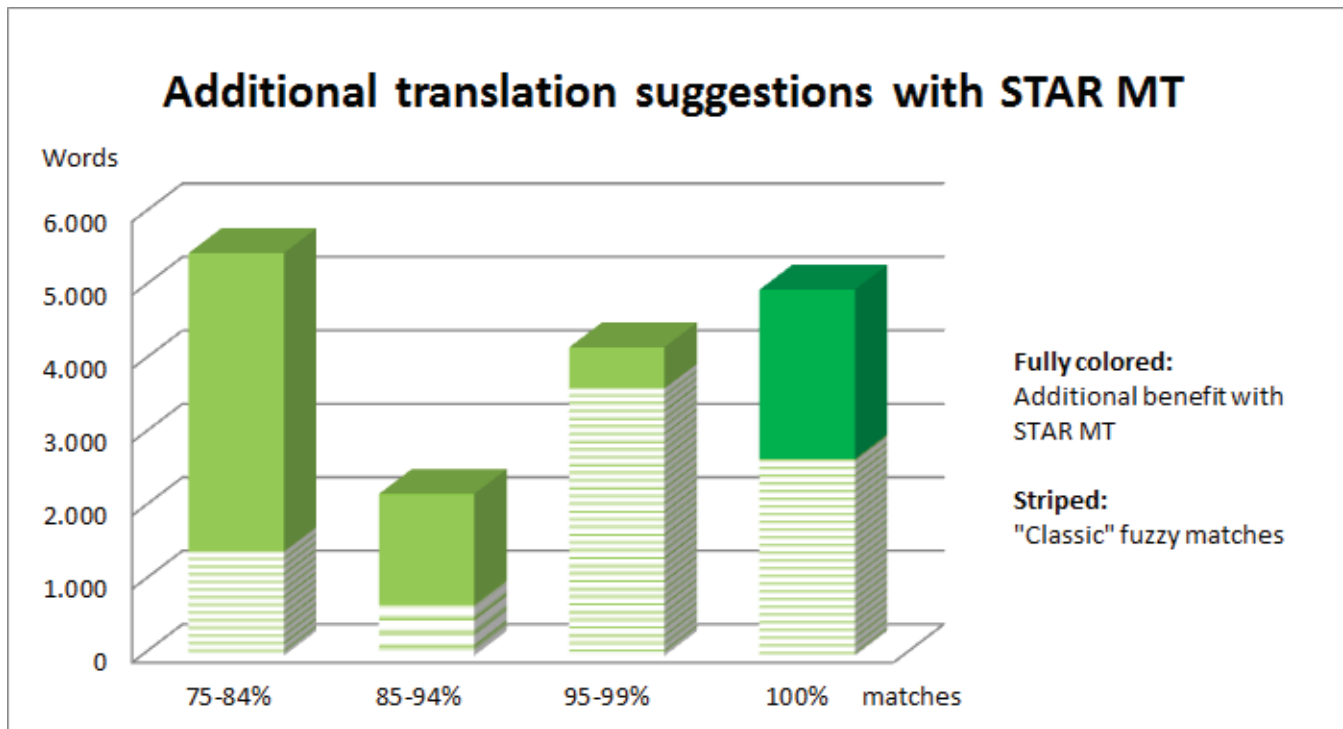
▲ Evaluation of productive analysis

- Objective benefit
- Comparison of initial analysis and productive analysis

▲ Evaluation of feedback sheets

- “Perceived” benefit
- Comparison of objective and “perceived” benefit

Stage 3 – Productive analysis



100% matches:	+86%
Fuzzy matches:	+104%
No matches:	-20%

Example: Productive analysis for one of our customers ("Technology" division)

Lessions learned

- ▲ A successful pilot phase requires
 - duration of several months
 - representative amount of productive jobs from “real life”
 - customer-specific MT scenario (IT infrastructure, MT case study)
 - all stakeholders to be involved
 - a smooth integration into daily work
 - a good cooperation between system provider and customer

Lessions learned

▲ Translators

- have high expectations of MT
- search for MT mistranslations
- have to be prepared for using MT well
- are diverse: “Facebook generation” vs. Traditional translators

▲ Proof of Concept offers a good indication of

- the expected benefit
- an accounting model with win-win situation for customers and translators

**Questions and comments
welcome!**

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