European Language Resource Coordination
Connecting Europe Facility

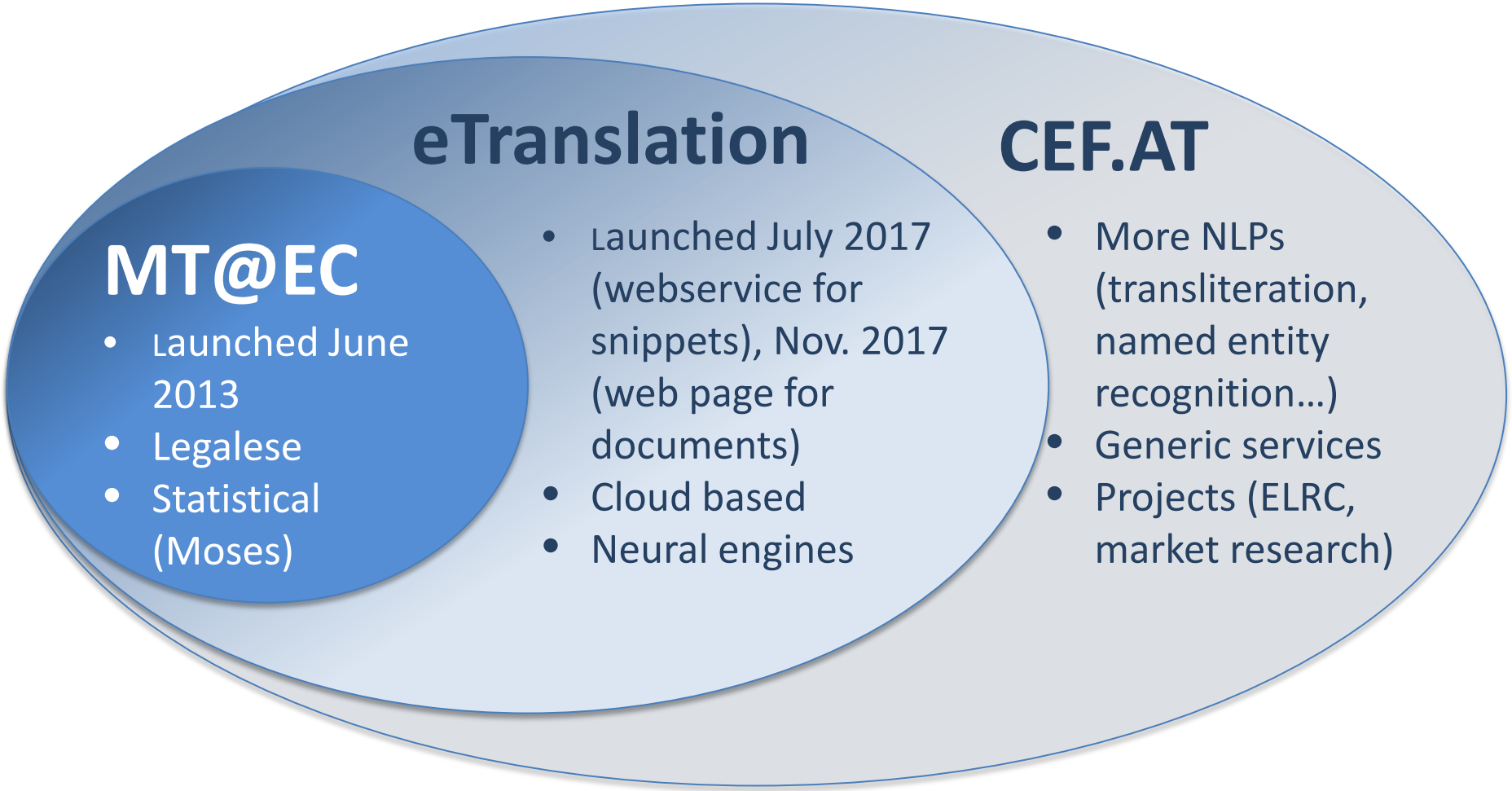
European Commission

The CEF eTranslation platform @ work

Markus Foti
eTranslation Programme Manager
DGT R.3

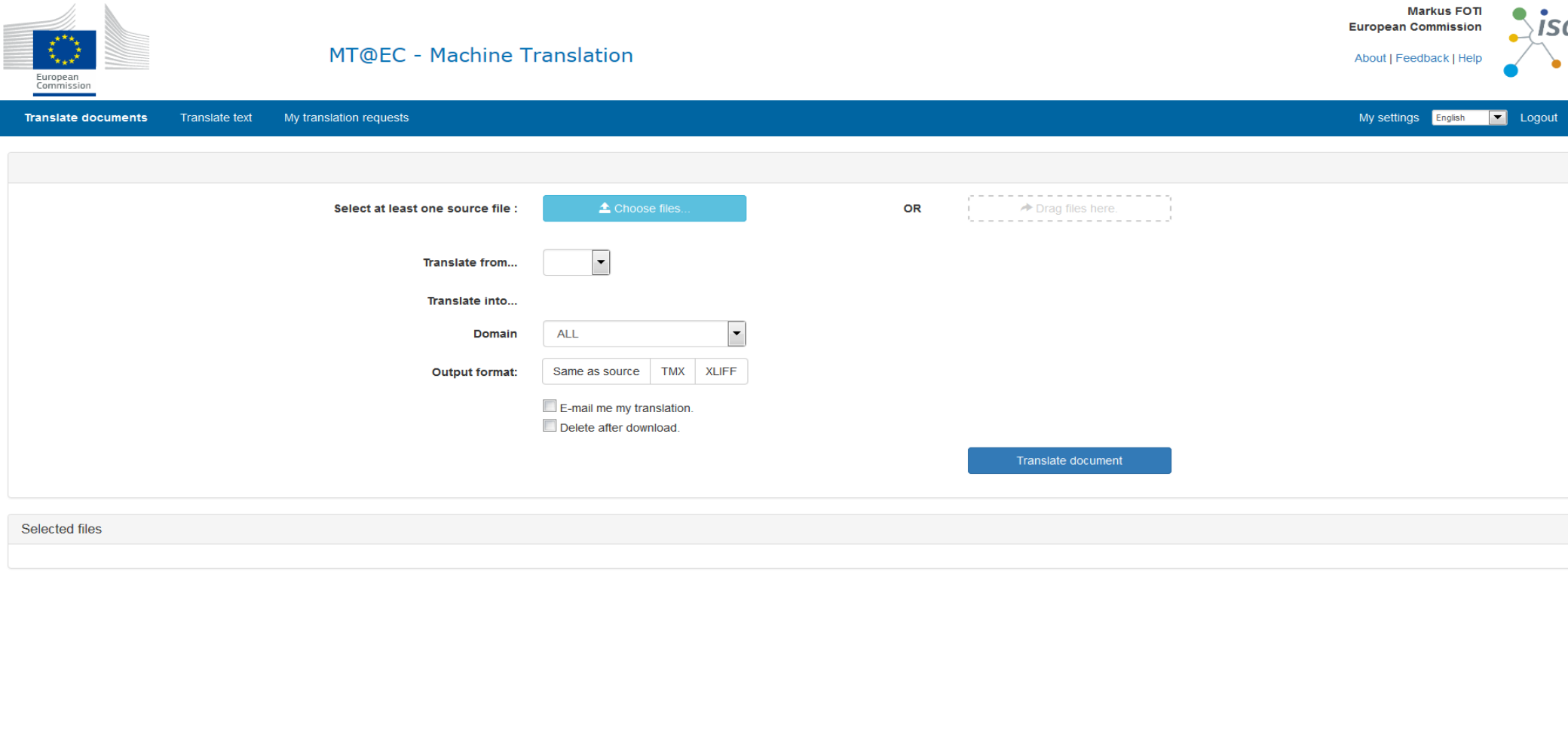
ELRC Workshop, Italy, 27 September 2018

eTranslation platform at a glance



eTranslation platform at a glance

- Available for:
  - individuals (submit documents through a web page)
  - machine-to-machine use
- Users:
  - Digital Service Infrastructures (EESSI, ODR, Open Data Portal, Europeana, etc.)
  - System suppliers (EURLex, N-Lex, Internal Market Information system…)
  - Individuals in public administrations
- Benefits:
  - Increase speed and productivity
  - Reduce costs
  - Facilitate information exchange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MT@EC - Machine Translation
Markus FOTI
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Translate documents
Translate text
My translation requests
My settings
English
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Select at least one source file :
Choose files...
OR
Drag files here.
Translate from...
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Output format:
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XLIFF
E-mail me my translation.
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Translate document
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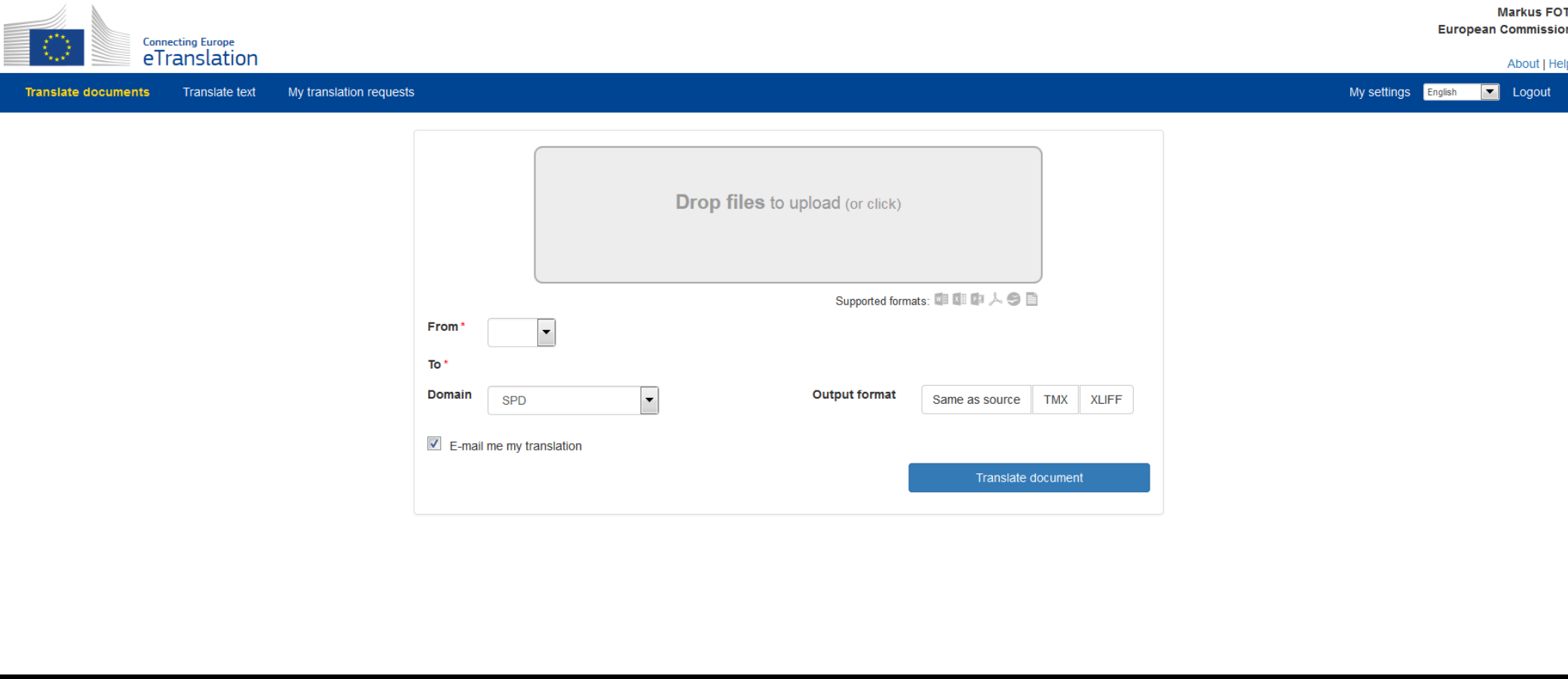
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eTranslation
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About | Hel
Translate documents
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My translation requests
My settings
English
Logout
Drop files to upload (or click)
Supported formats:
From *
To *
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Output format
Same as source
TMX
XLIFF
E-mail me my translation
Translate document

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Submit your document…

EUROPEAN COMMISSION

MEMO

Brussels, 6 May 2013

Smarter rules for safer food: Commission proposes landmark package to modernise, simplify and strengthen the agri-food chain in Europe

1) What is "from farm-to-fork" policy?

The EU "from farm-to-fork" policy covers legislation to **protect health** by ensuring that the food we produce and import that ends up on our plates is safe to eat. This body of legislation is a complex, integrated system of rules which takes care of all the links in the food chain from: the protection of plants from pests, the protection of animals and humans from animal diseases (and from such diseases which are transmissible to humans) and the protection of human health from all the hazards that might arise along the agri-food chain. It also includes all those rules which allow the Single Market to function smoothly in this area and provides rules for the protection of consumers.

Official controls are carried out at various stages in the food production chain by EU Member States to ensure that the legislation is being correctly applied.

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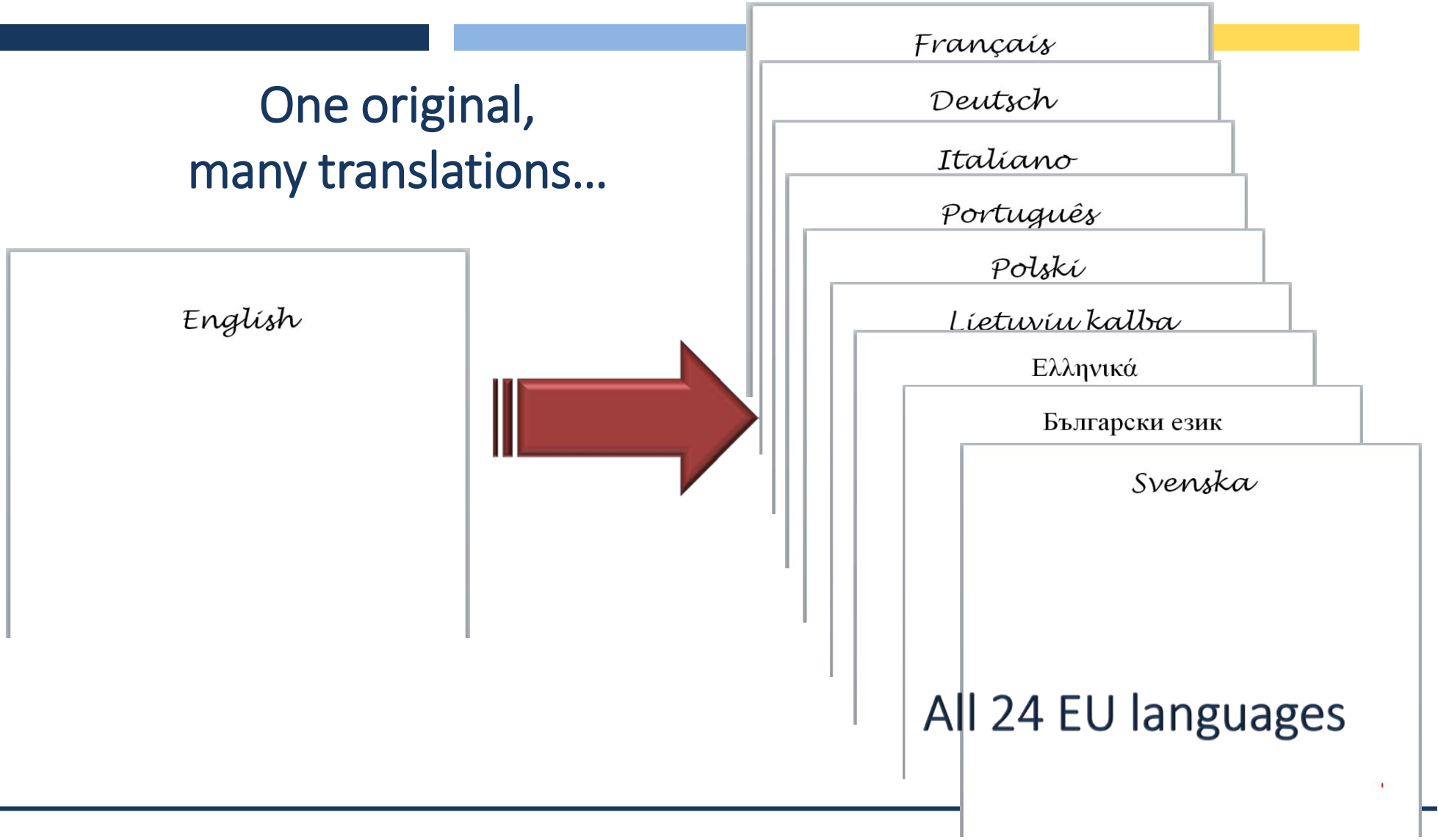
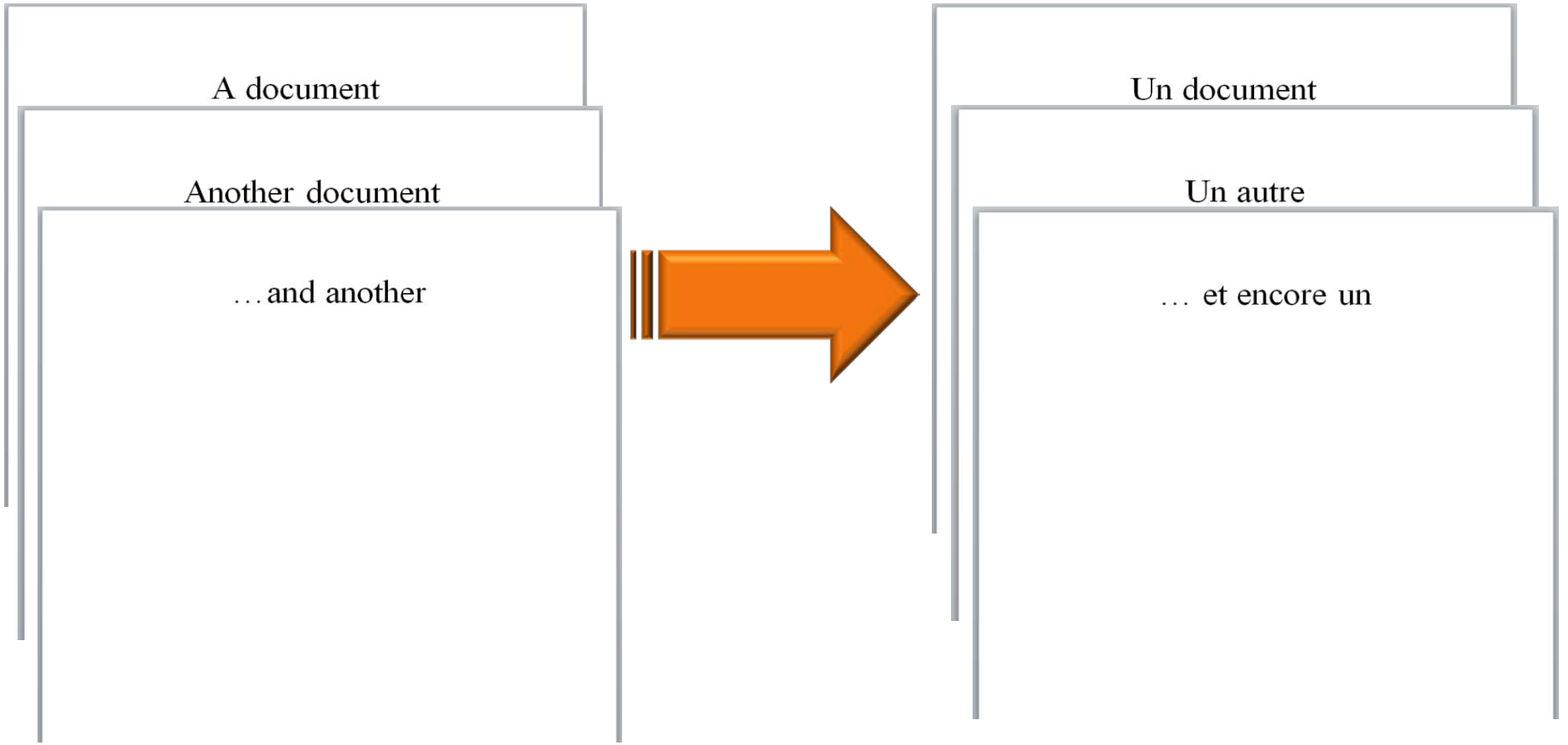
Get your translation back by e-mail.

One original, many translations…



Many documents at once…



eTranslation protects your privacy

- All documents deleted after 24 hours or after delivery (on demand)
- IPR rights transferred
  (Your translation belongs to YOU!)

No one

at your translations!

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Machine-to-machine services eTranslation on the N-Lex portal

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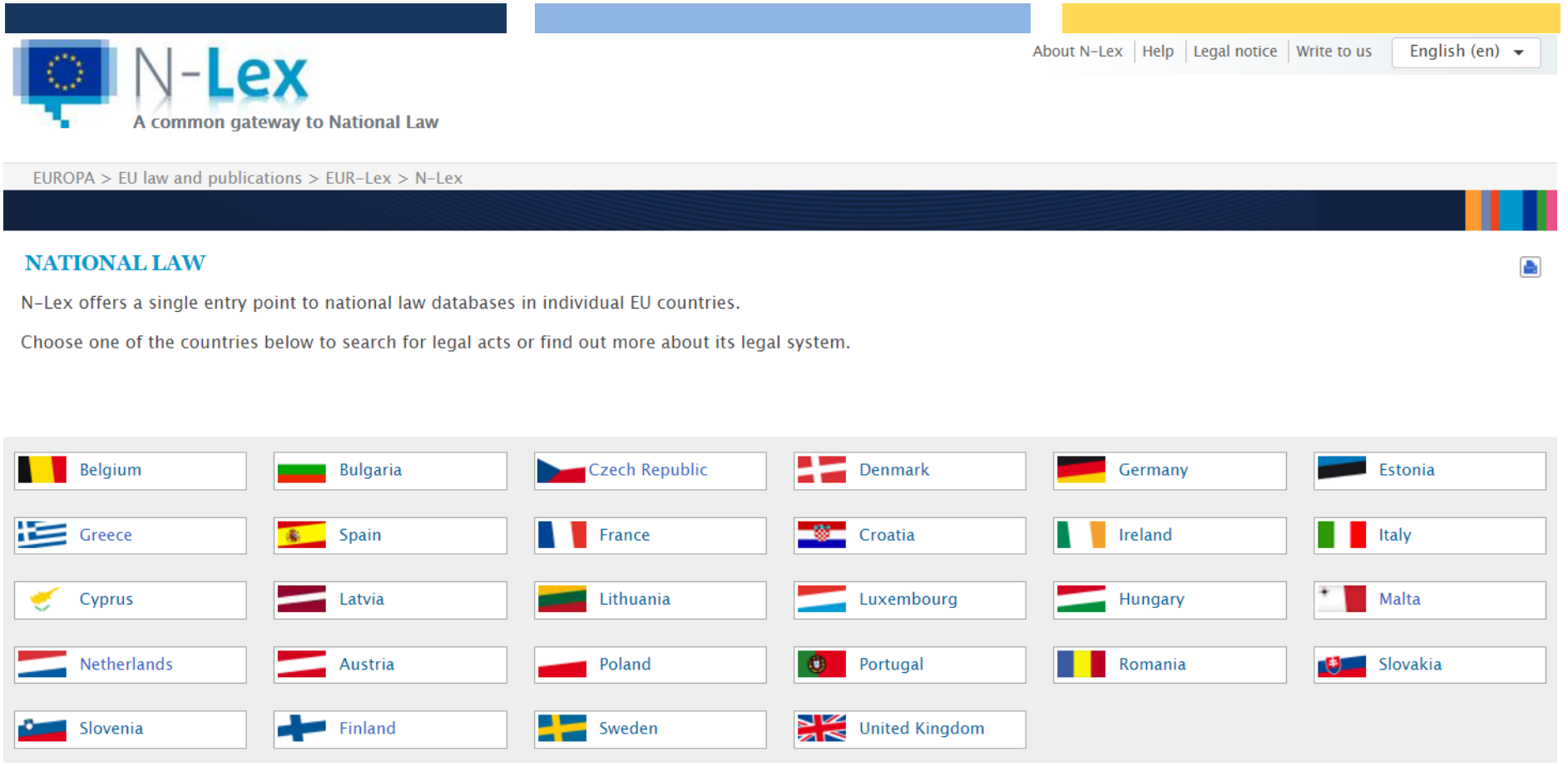
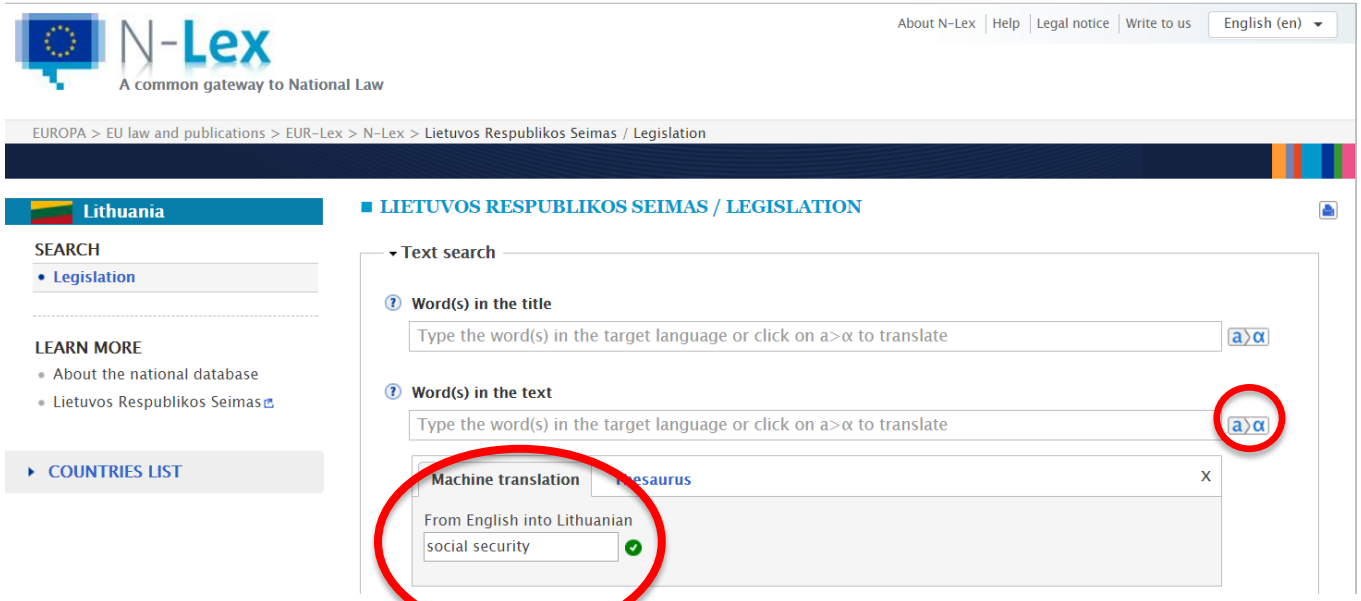


Machine-to-machine service eTranslation on the N-Lex portal



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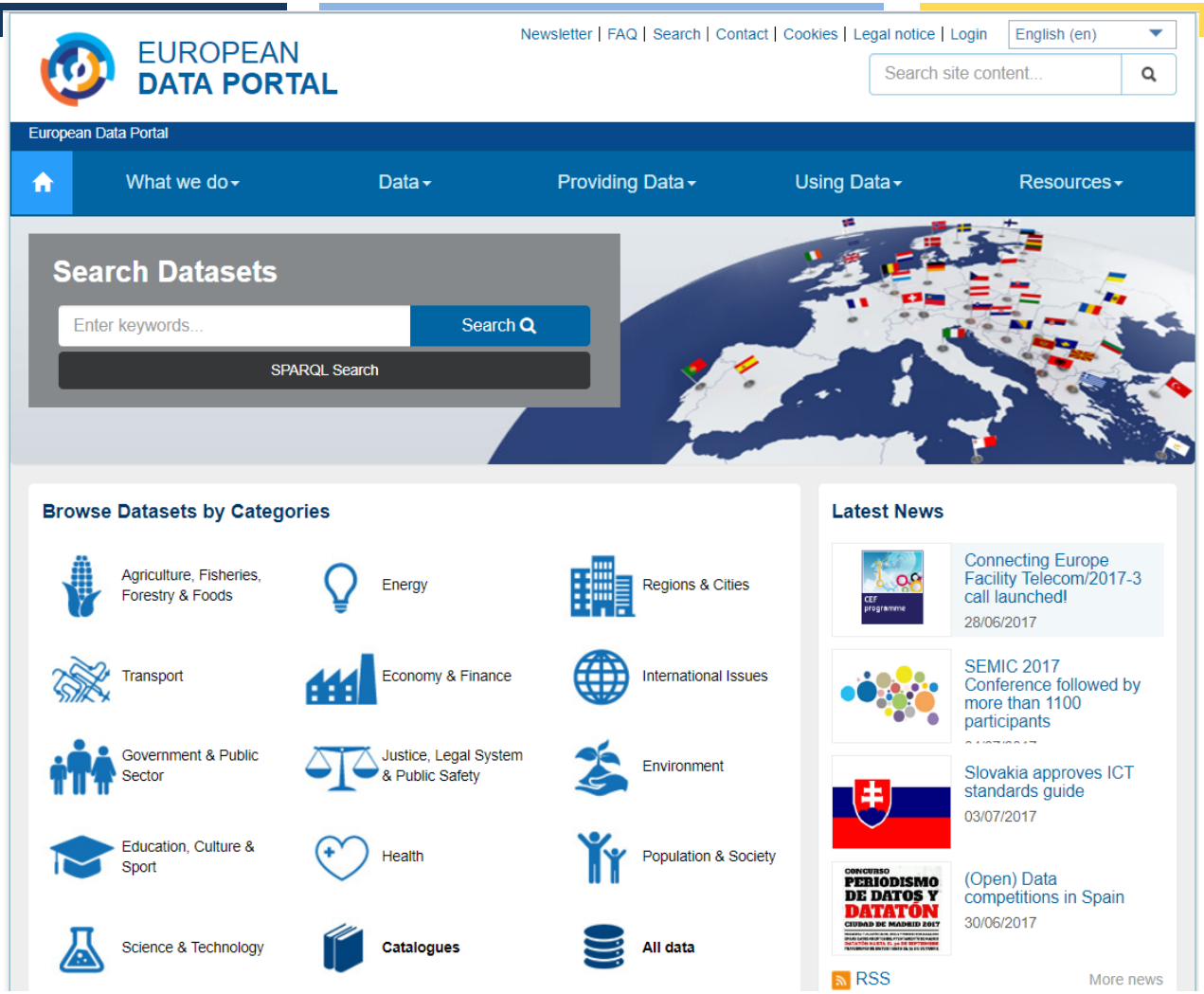
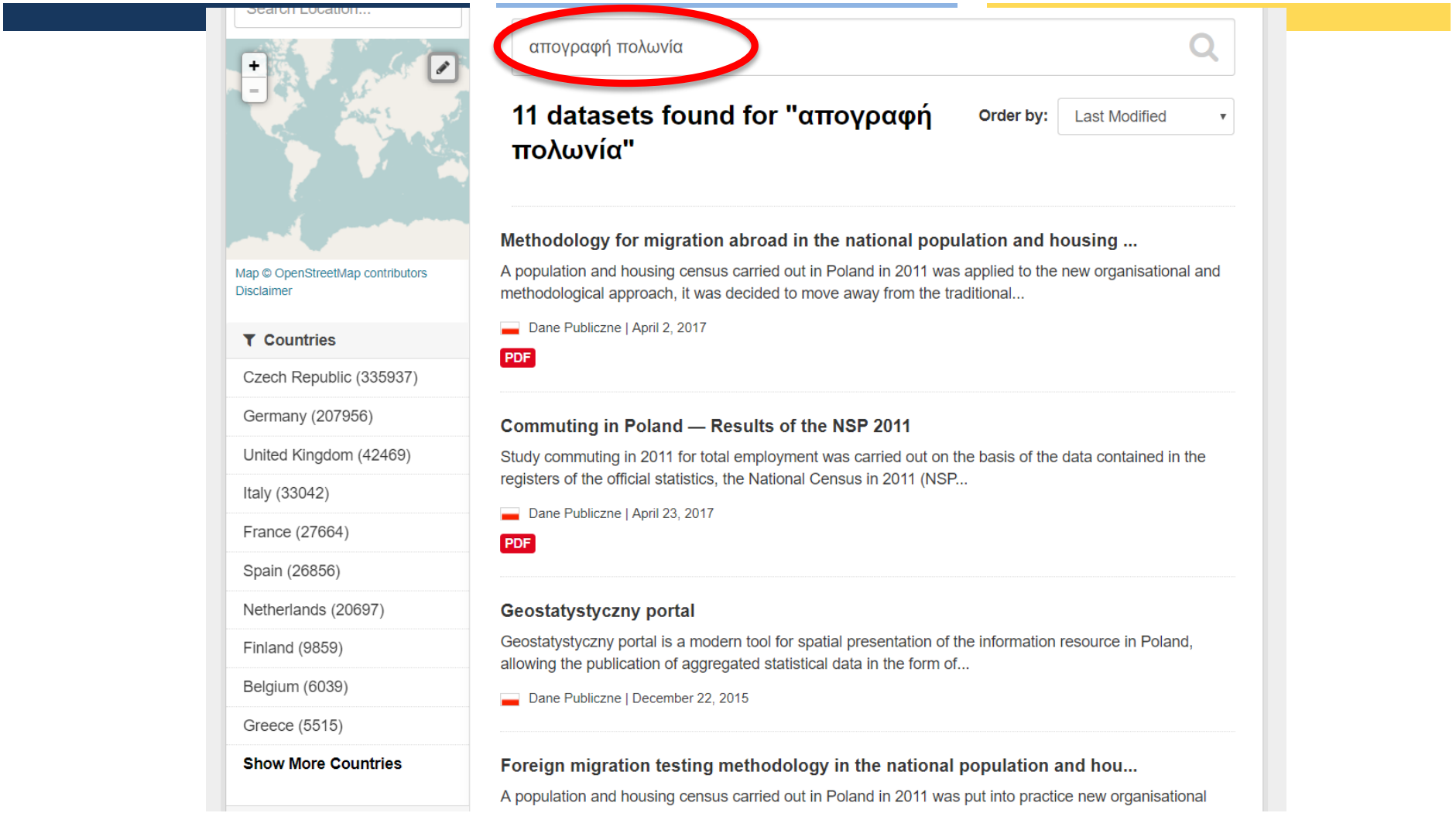
Machine-to-machine service eTranslation on the European Data Portal

European Commission



Machine-to-machine service eTranslation on the European Data Portal



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Machine-to-machine service eTranslation on the European Data Portal

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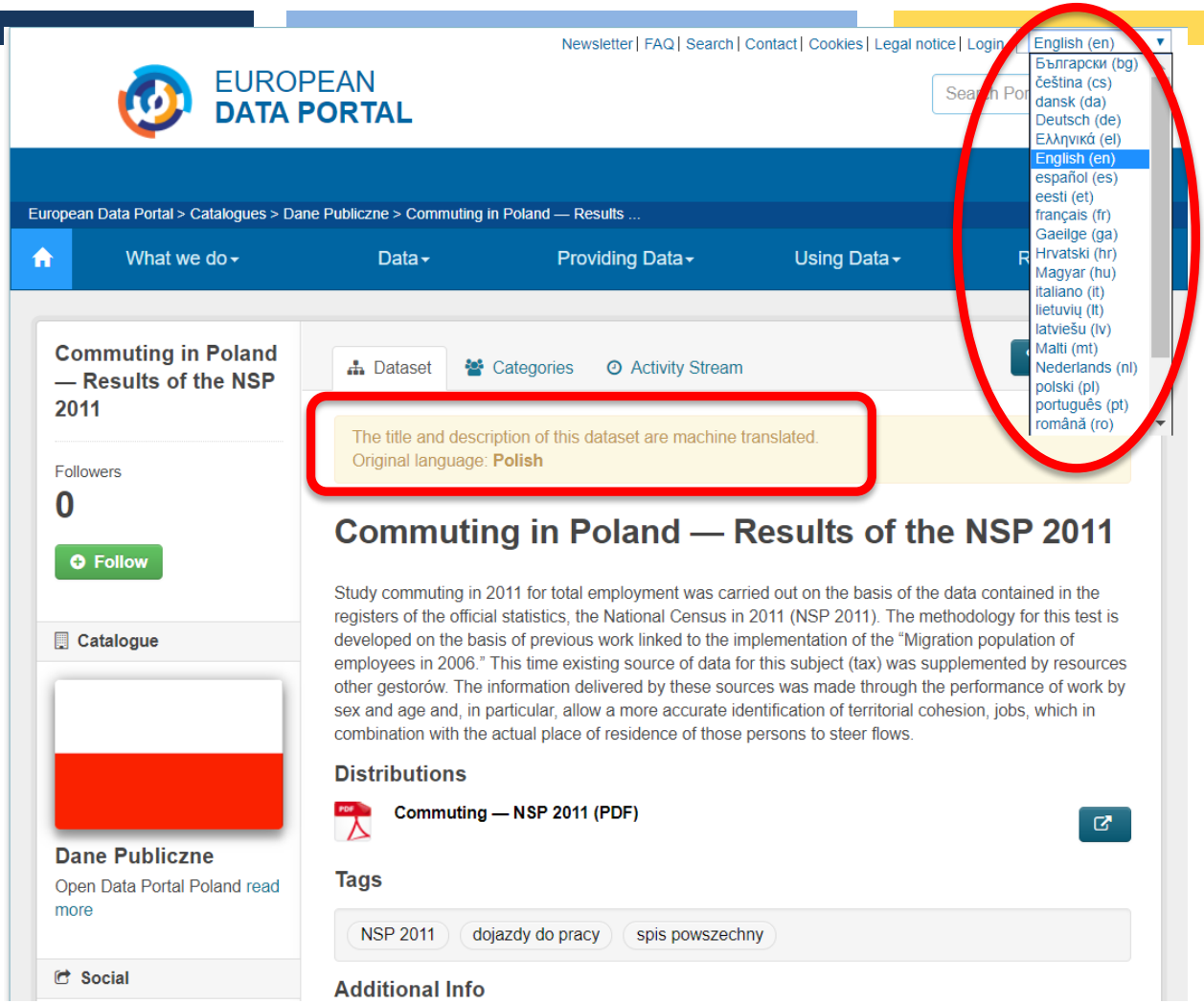

How to Connect to eTranslation

- Open to DSIs and public administrations
  - Contact CEF-AT@ec.europa.eu with your request and use case
  - We will provide the technical documentation on how to connect
    - SOAP request or RESTful interface
  - Contact us for credentials
  - Adapt your service to multilingual use!

Behind the scenes: how it works

- Statistical Machine Translation
  - MT@EC built only on "EU translations" (Euramis database)
  - Covers all 24 languages
  - Euramis (and MT@EC) cover EU policies, subjects and language but limited everyday language
  - Moses-based engines
  - Performs best when trained on **large volumes** of text pairs (source-translated) in **specific domains**

Neural Machine Translation (NMT)

What is NMT?

- Machine learning: artificial neural networks trained on existing translations
- The computer devises its own rules on how to translate
- Radical departure from the phrase-based SMT approaches

Why is it important?

- Translations read better: more fluent and grammatical
- Better able to fill in gaps in data used for training training
- Better for highly inflected languages (e.g. German, Hungarian)

This is where the field is headed

- Will SMT become obsolete?

Neural Machine Translation Engines

- EN into:

BG	CS	DA	DE	EL	ES	ET	FI	FR
GA	HR	HU	IS	IT	LT	LV	MT	NB
NL	PL	PT	RO	SK	SL	SV		

Neural Machine Translation Engines

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Neural Machine Translation Engines

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24 June 2018

SMT vs NMT

Original Text (http://europa.eu/rapid/press-release_IP-18-5709_en.htm):
Starting in 1980, the European Union gradually adopted legislation putting an end to the diverging schedules of the national clock changes. In 2018 however, the purpose of clock changes has become much less relevant, with studies suggesting that energy savings are now marginal and citizens increasingly complaining about negative health impacts.

MT@EC (SMT):
A partire dal 1980, l'Unione europea ha adottato una legislazione per porre gradualmente fine alla divergenza di elenchi nazionali di orologio modifiche. Nel 2018, tuttavia, lo scopo di orologio modifiche è diventato molto meno rilevanti, con studi indicanti che i risparmi energetici sono ormai marginale e sempre più spesso i cittadini e denuncia l'impatto negativo sulla salute.

eTranslation (NMT):
A partire dal 1 980 l'Unione europea ha gradualmente adottato una legislazione che pone fine ai diversi calendari divergenti dei cambiamenti d'orologio nazionali. Nel 2018, tuttavia, lo scopo dei cambiamenti dell'orologio è divenuto molto meno rilevante, con studi che indicano che i risparmi energetici sono ormai marginali e i cittadini si lamentano sempre più spesso di impatti negativi sulla salute.

SMT vs NMT

Original Text (https://www.ft.com/content/f56befe2-b676-11e8-bbc3-ccd7de085ffe):
The League and Five Star came to power on the back of proposals for a "flat tax" and a "universal income" that, if fully implemented, might cost the government more than €100bn. Markets, sensitive to any policies that risk jeopardising Italy's ability to repay its colossal public debt, responded by driving up sovereign bond yields.

MT@EC (SMT):
La Lega e Five Star ha assunto il potere grazie a proposte per una «flat tax» e di un «reddito universale» che, se pienamente attuato, il governo potrebbe costare più di 100 miliardi di euro. Mercati sensibili a politiche che rischiano di compromettere la capacità dell'Italia di rimborsare il proprio debito pubblico colossale, ha risposto con un aumento del rendimento delle obbligazioni sovrane.

eTranslation (NMT):
La Lega e i cinque Star si sono dichiarati sul retro delle proposte per una «tassa forfettaria» e un «reddito universale» che, se pienamente attuato, potrebbe costare all'amministrazione più di 100 miliardi di euro. Mercati, sensibili a qualsiasi tipo di politica, che rischiano di compromettere la capacità dell'Italia di rimborsare il debito pubblico colossale, hanno risposto facendo aumentare il rendimento dei titoli di Stato.

SMT vs NMT

Original Text (https://www.nytimes.com/2018/08/29/world/europe/rome-tiberis-beach.html):

The riverfront beach was supposed to be a summertime gift from the beleaguered mayor of Rome, Virginia Raggi, to her citizens. Called "Tiberis," an ancient name for Rome's main waterway, the municipal beach had been promoted as Rome's answer to Seine-side installations in Paris.

MT@EC (SMT):

La spiaggia riverfront doveva essere una donazione dell'ora legale assediati, sindaco di Roma Virginia Raggi, ai suoi cittadini. «Tiberis», un antico nome per Roma, via principale della spiaggia comunali di Roma era stata promossa come soluzione Seine-side impianti a Parigi.

eTranslation (NMT):

La spiaggia anteriore doveva essere un regalo del cittadino del sindaco di Roma, Virginia Raggi, ai suoi cittadini. Il cosiddetto «Tiberis» è un antico nome della principale via navigabile di Roma, mentre la spiaggia comunale era stata promossa come risposta di Roma agli impianti «Seine-side» a Parigi.

eTranslation
EU Legislation

Source: EN

THE EUROPEAN COMMISSION,
Having regard to the Treaty on the Functioning of the European Union,
[…]
HAS ADOPTED THIS DECISION:
Article 1
The total sum of greenhouse gas emissions covered by Decision No 406/2009/EC for each Member State for the year 2014 arising from the corrected inventory data upon completion of the comprehensive review referred to in Article 19(1) of Regulation (EU) No 525/2013 is set out in the Annex to this Decision.

Target: IT

LA COMMISSIONE EUROPEA,
Visto il trattato sul funzionamento dell'Unione europea,
[...]
HA ADOTTATO LA PRESENTE DECISIONE:
Articolo 1
La somma totale delle emissioni di gas a effetto serra disciplinate dalla decisione n. 406/2009/CE per ciascuno Stato membro per l'anno 2014, derivante dai dati di inventario corretti al termine della revisione completa di cui all'articolo 19, paragrafo 1, del regolamento (UE) n. 525/2013, è stabilita nell'allegato della presente decisione.

Language resources: the key to success

- More data for all languages
- Better lexical coverage for all languages
- Machine translation adapted to your domain/subject matter

Future Improvements

Requested by users such as EDP, e-Justice, Europeana, EESSI, ODR…

- Speed
- Transliteration
- More formats (PDF output, JSON)
- Named-entity recognition
- New languages (AR, RU, TK, ZH)

CEF.AT brings…

- Reliable and trustworthy translation for EU and National Public Administrations
- Support for languages with fewer speakers
- Opportunities for private sector, through grants and generic services
- A higher profile for language technologies, thus fostering demand
- Public availability of data collected by ELRC

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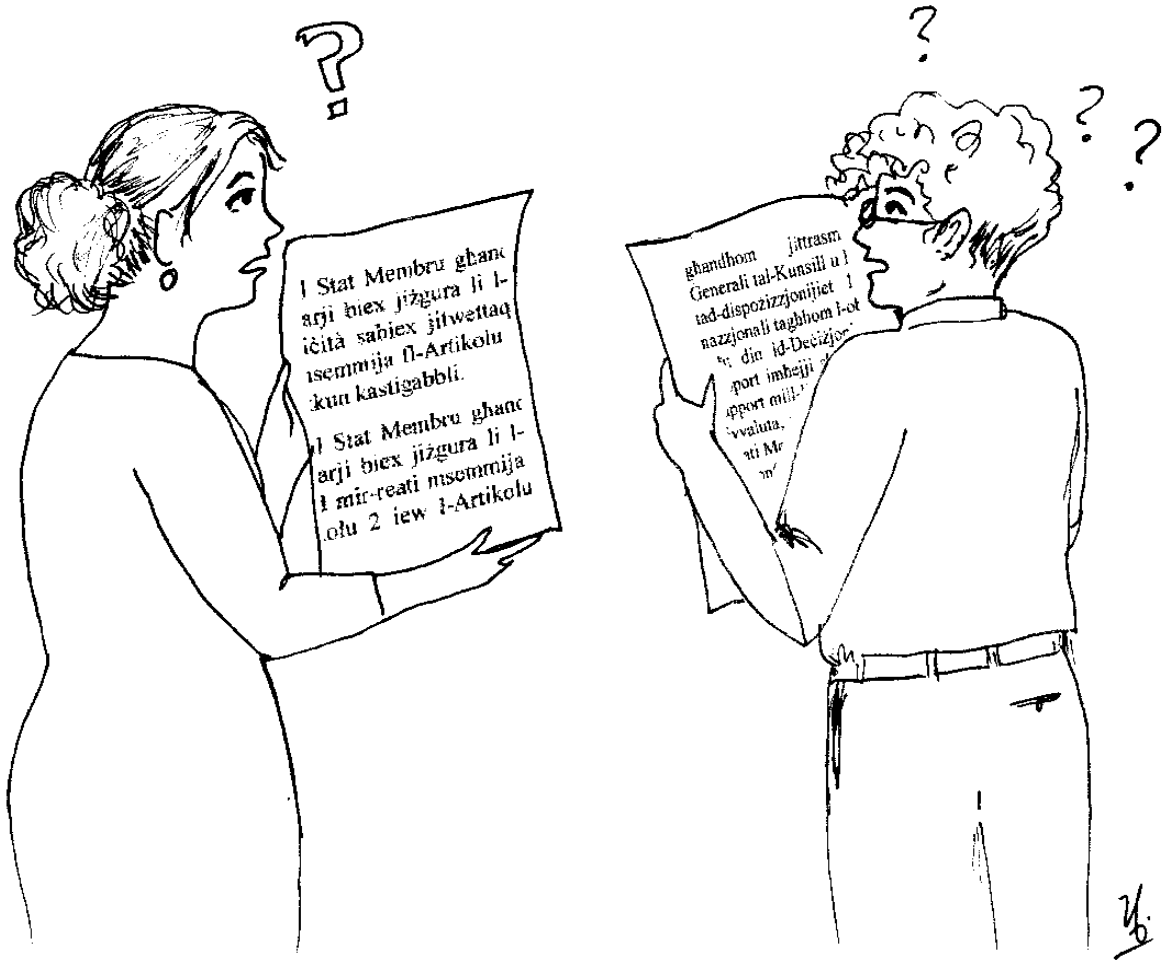
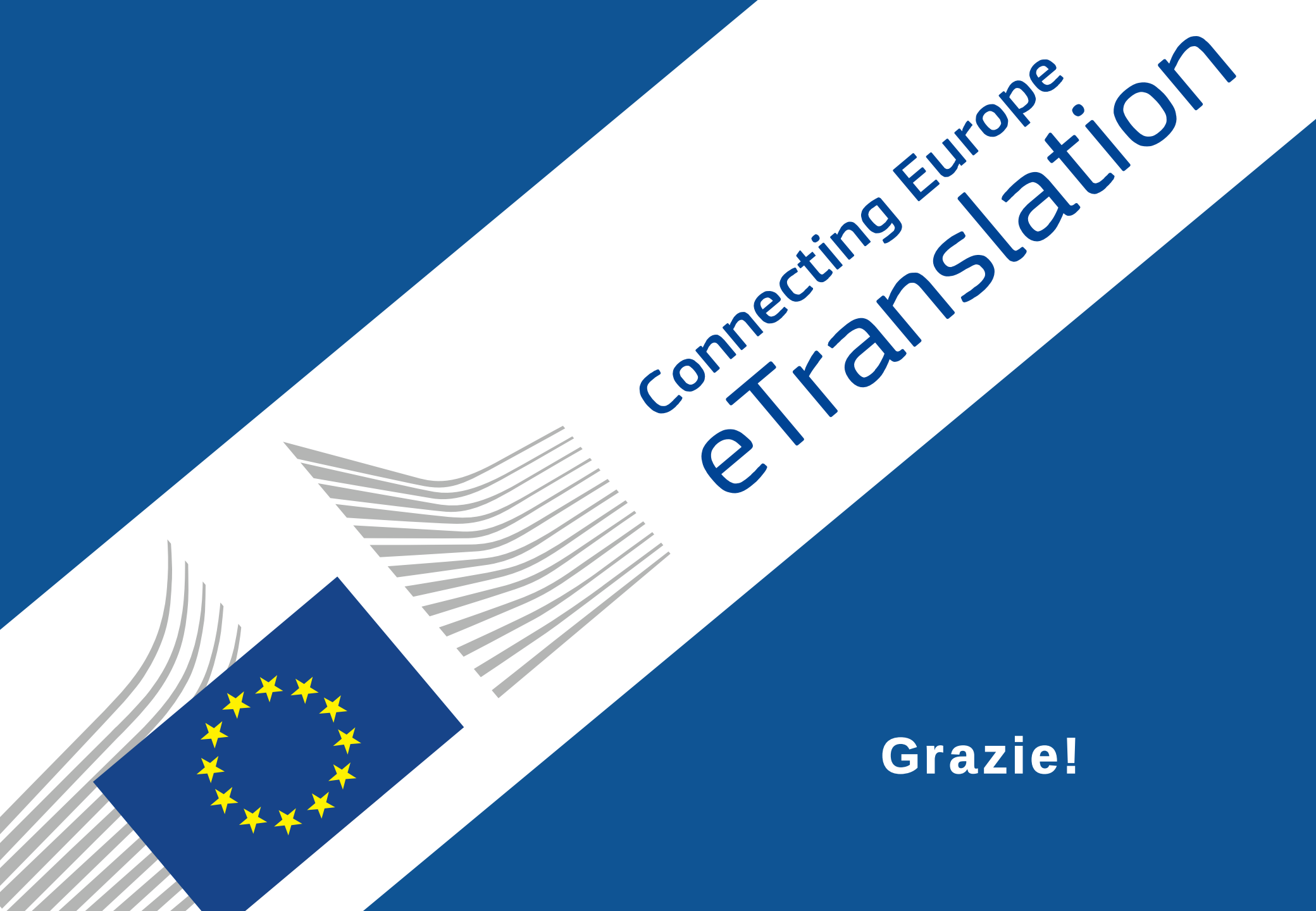
Solve your language problems!

European Commission





Grazie!