

# TRANSLATIONS & OPEN SCIENCE

Translation as a collaborative practice at the heart of open science

Susanna Fiorini

Final TRIPLE Conference  
1-3 February 2023

# Outline



01

## **Project overview**

History and context of the project

02

## **Project target**

Aims and deliverables of the project

03

## **Ongoing studies**

Methodology and phases of the project

# Project overview

History and  
context

2019: Helsinki Initiative on Multilingualism in  
Scholarly Communication

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2020: Translations & Open Science Working Group,  
an initiative of the French National Fund for Open  
Science

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2020: release of the Translations & Open Science  
Report with a special focus on translation technology

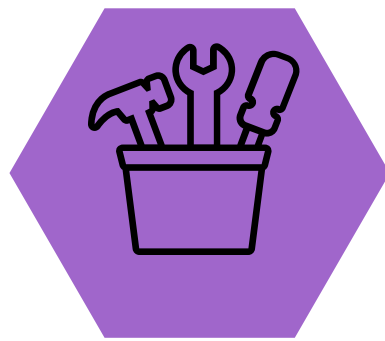
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2022: four preparatory studies to the creation of a  
technology-based scientific translation service

# Project target

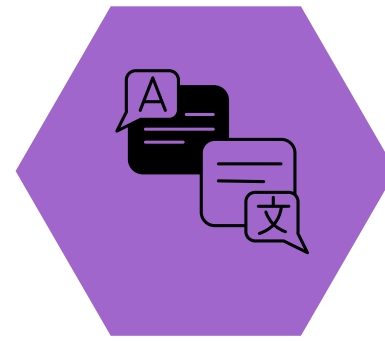
Aims and deliverables of the project

## Technology-based scientific translation service



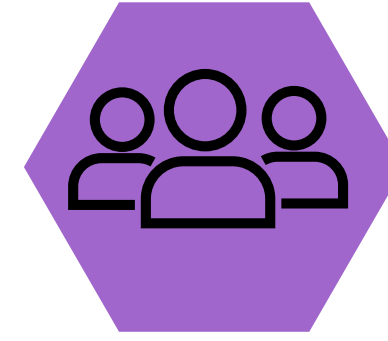
### Translation technology

Integrated computer-assisted and machine translation tools



### Shared language resources

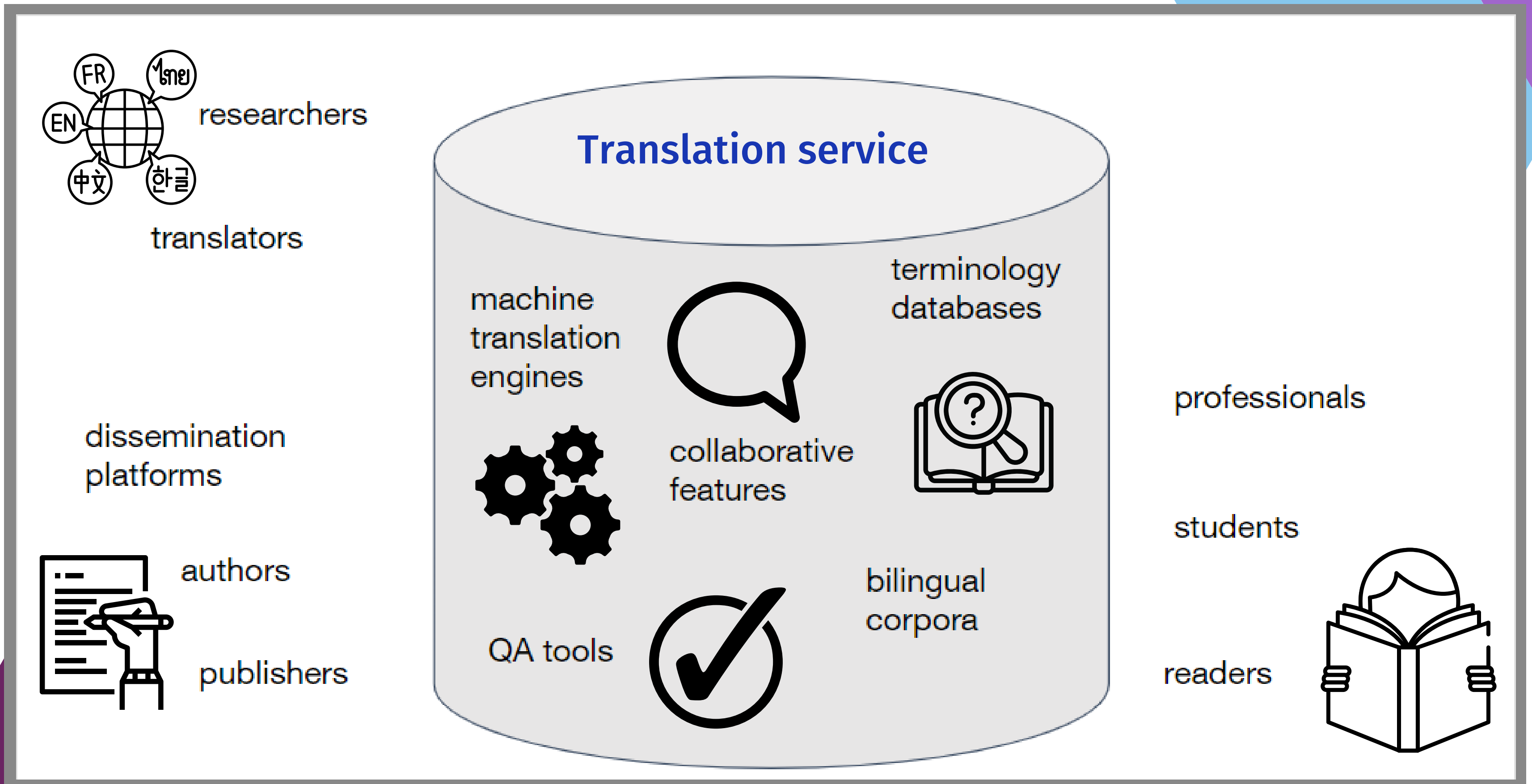
Interoperable and shareable translation memories, corpora and glossaries



### Improved collaboration

A single digital environment to foster collaboration between different players

# Technology-based scientific translation service



# Technology-based scientific translation service

volume et de privilégier ainsi la publication de peu d'articles dans chaque dossier mais aussi longs que de besoin, dans les limites fixées par les 1 consignes aux auteurs 1.

La revue entend en outre, par sa 1 politique linguistique 1 énoncée au début des consignes aux auteurs, réaffirmer l'importance d'une science multilingue, proposer aux chercheurs intéressés par la didactique de nos métiers un débouché pour leurs écrits et réflexions en français, mais aussi ouvrir le plus largement possible à d'autres langues, dans le respect du 2 processus éditorial 2, en mettant en œuvre la traduction (synthétique) dans son rôle de diffusion, d'élargissement du public.

Source text

privilegiare la pubblicazione di pochi articoli in ogni dossier, di una lunghezza variabile, entro i limiti fissati dalle 1 linee guida per gli autori 1.

La rivista intende inoltre, con la sua 1 politica linguistica 1 dichiarata all'inizio delle linee guida per gli autori, riaffermare l'importanza di una "scienza multilingue". Offrire ai ricercatori interessati alla didattica delle nostre professioni uno spazio per i loro scritti e riflessioni in francese, ma anche aprire il più possibile ad altre lingue, nel rispetto del 2 processo editoriale 2, avvalendosi della traduzione (sintetica) per la divulgazione a un pubblico più ampio.

Translation



A+>>

APPROVED

Translation Matches (1)

TM Search

Glossary (1)

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Susanna Fiorini

Team Should we translate literally?

COMMENT

Collaborative comments

Language resources



# Ongoing studies

Methodology and phases of the project

1

**Mapping and collection of  
scientific bilingual corpora**

2

**Use case study for a technology-  
based scientific translation service**

3

**Machine translation output  
evaluation in the context of  
scholarly communication**

4

**Roadmap and budget projections**

# Mapping and collection of scientific bilingual corpora

Revue internationale[...]des du développement

en-GB → fr-FR

 DOWNLOAD TMX

Align

Merge

Split

Switch

Hide



1

Resilience and Development: Complement, Substitute or Stopgap Solution?

Résilience et développement : complément, substitut ou palliatif ?

2

The Case of Sahelian Pastoralism

Le cas du pastoralisme au Sahel

3

What is the political function of the ubiquitous term “resilience” in today’s development aid?

Quelle fonction politique remplit le vocabulaire de la résilience, aujourd’hui omniprésent dans l’aide au développement ?

4

This article analyses the discourse of some aid programmes and projects, drawing on 15 years of empirical research on the Sahelian pastoral populations, who today are a symbol of resilience.

Cet article analyse le discours de programmes et de projets d’aide, à la lumière de recherches conduites pendant une quinzaine d’années auprès des populations pastorales sahéniennes, aujourd’hui emblématiques de la résilience.

5

It shows how the notion of resilience conveys compassionate and security meanings characteristic of a neoliberal policy, resulting in the weakening of public policies.

Il montre en quoi la notion de résilience véhicule des traits compassionnels et sécuritaires, caractéristiques d’une idéologie néolibérale entraînant par ailleurs l’affaiblissement des politiques publiques.

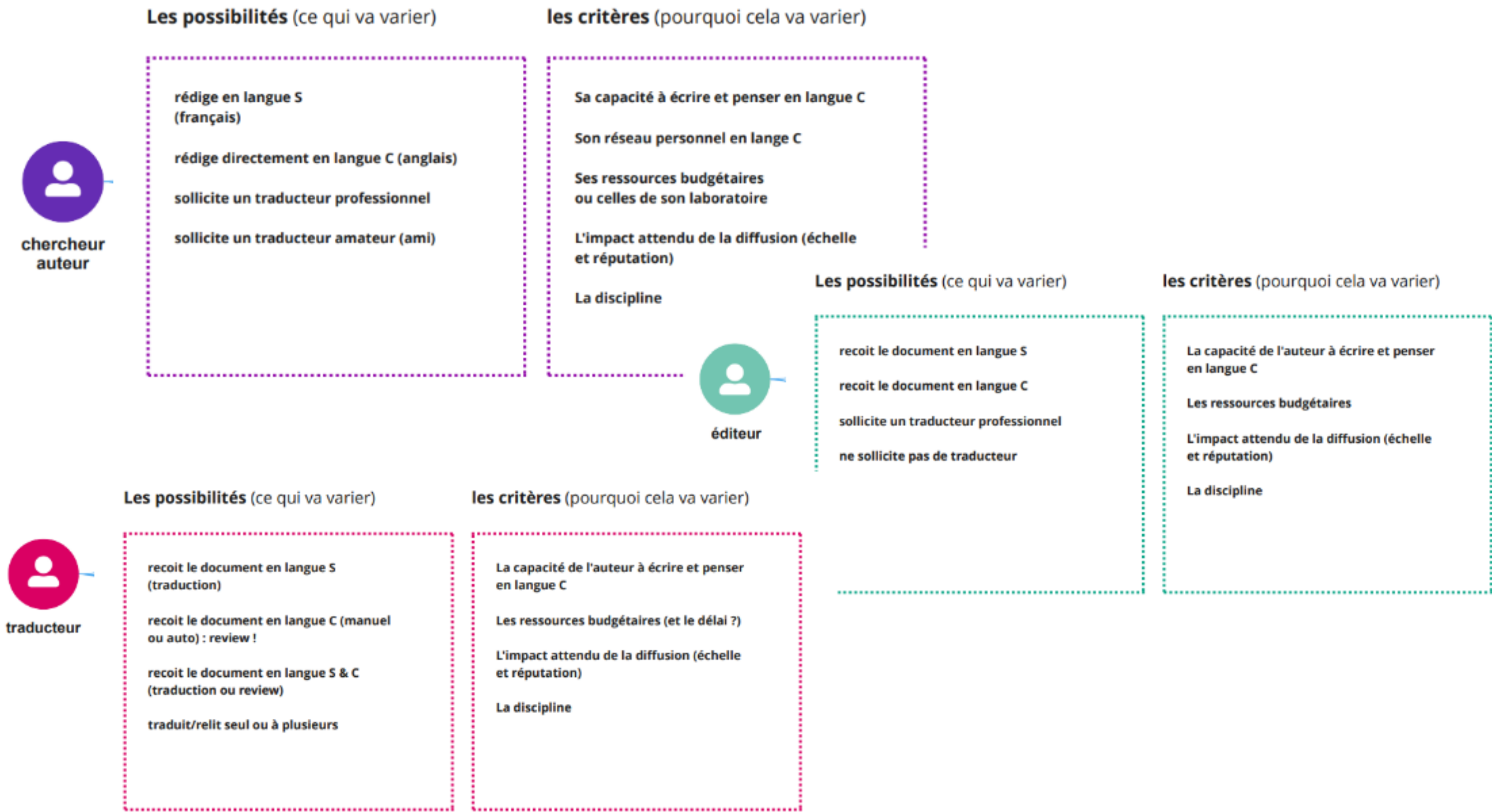
Create translation memories

Extract specialised terminology

Train machine translation



# Use-case study for a technology-based scientific translation service



Draft an overview of the current translation practices in scholarly communication

Define the use cases of a technology-based scientific translation service

# Machine translation output evaluation in the context of scholarly communication

Fine-tune machine translation engines

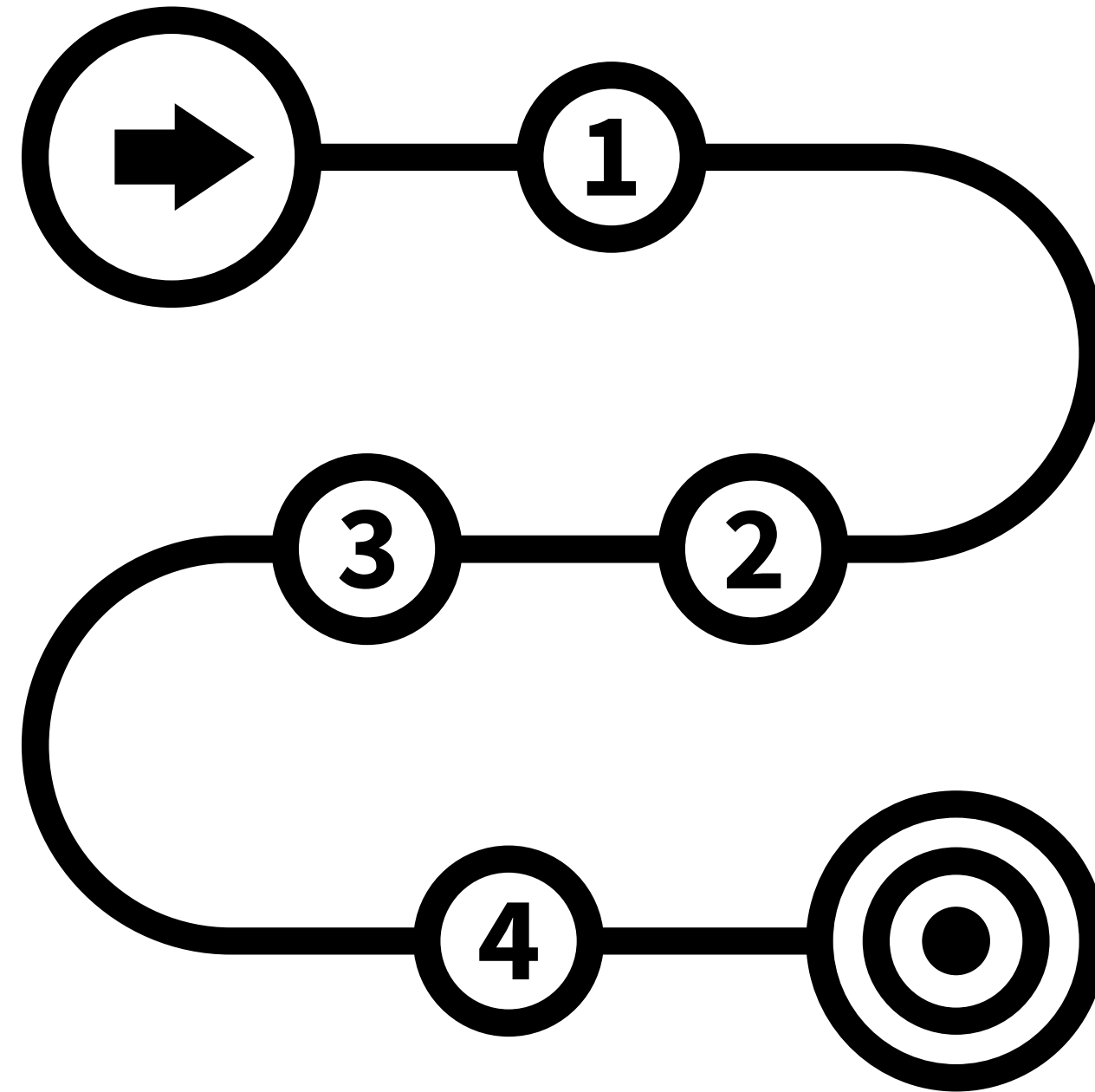
Sentence 1	BLEU	Length ratio	Text
Source	-	-	Resilience and Development: Complement, Substitute or Stopgap Solution?
Human	100.00	1.00	Résilience et développement : complément , substitut ou palliatif ?
Machine	69.89	1.10	Résilience et développement : Complément , substitut ou solution provisoire ?
Machine	69.89	1.10	Résilience et développement : complément , substitut ou solution palliative ?

.....

Evaluate the selected engines with specialised texts for different purposes and personas:

- A researcher;
- A translator;
- A reader.

# Roadmap and budget projections



**Define a strategic plan to develop and run the service**

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**Make budget projections to anticipate the costs**

# Where We Are Now

Progress of the project

## Study 1 - Corpora

3 pilot disciplines in the EN-FR language pair:

- Climatology and climate change (Physical Sciences and Engineering)
- Neuroscience and Disorders of the Nervous System (Life Sciences)
- Human Mobility, Environment, and Space (Social Sciences and Humanities)

**Almost achieved**

## Study 2 - Use-case study

6 interviews and 1 workshop so far

**Ongoing**

## Study 3 - Machine translation evaluation

**About to launch**

# Conclusions

01

Need for shared human skills, language resources and translation technology

02

An open and modular digital environment to foster multilingualism through collaboration and technology

03

Translation as a collaborative practice at the heart of open science

# Questions?



<https://operas-eu.org/projects/translations-and-open-science/>



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<https://tradso.hypotheses.org/>



**Thank you!**