



# Neural Machine translation for the financial industry

## Building a specialised NMT engine

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# Agenda

Setting the scene : why MT for the financial domain?

Data Collection and classification

Data cleaning and tagging

Quality Assessment

Post edition process

Continuous improvement

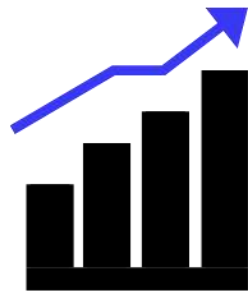


# Panorama for financial translations / Stakeholders

The financial sector is very diverse and so are its translation requirements.

Different stakeholders:

Investment Finance



Corporate Finance





# Panorama for financial translations

## Specific translation requirements:

### To publish and distribute

- Client reporting
- Regularly financial reporting
- Request for proposal...

### To understand and analyse

- Annual report
- Product sheet
- Credit analysis note...

## Multiple MT opportunities:

- In house translations : Urgent / Ultra Technical for languages mastered in house
- For finance professionals or in house translation teams
- Pre-translation step for cost saving purposes (mass translation for regulatory documentation for example)



## The use case

Building an MT engine

Credit Analysis use case

Chinese Annual reports to be translated in English as soon as they are published

Input documents : pdf

Additional feature : data extraction



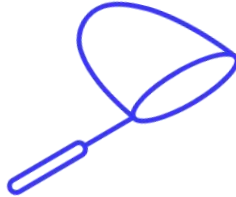
# Data Collection

## Challenges

FIND THE DATA



COLLECT THE FILES



CLASSIFY & ASSESS  
THE FILES



ALIGN THE FILES





# Data Cleaning and Tagging

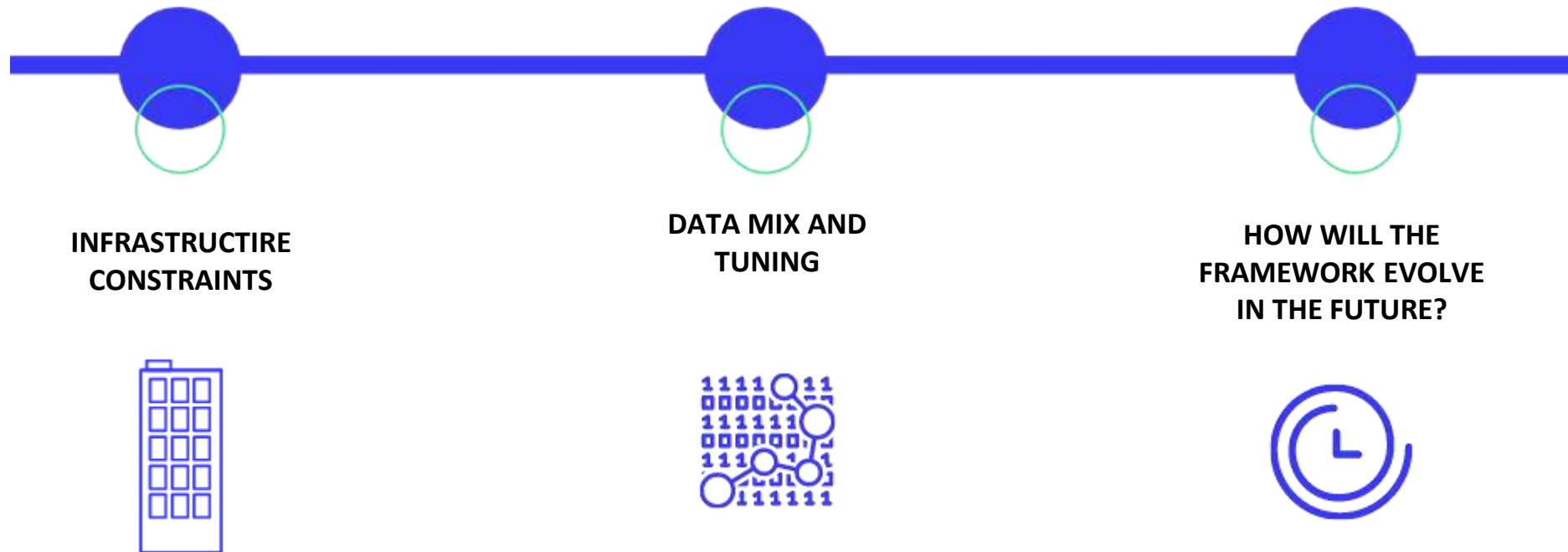
## Challenges





# NMT training Framework

## Challenges

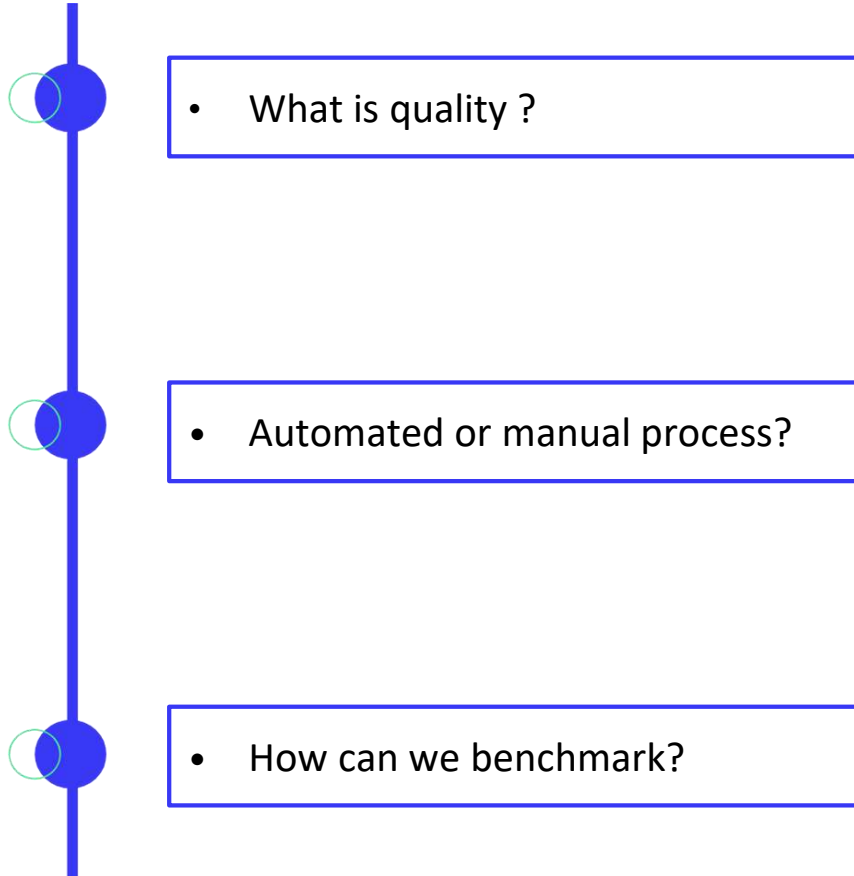






# Quality Assessment

## Challenges





# Post edition process

## Challenges

- How is the engine going to be used by the client ?  
• What interface should be proposed?
- Pre-translation or translation on the fly ?
- Human challenges



# Continuous improvements

## Challenges



- How to collect feedbacks?

- How to integrate new data and retrain engine?

- Measuring progress as time goes and making it simple for the client



# Case Study

**In house technical financial procedures**

**Many challenges facing MT**

**Successful outcome after 3 months**



- Externalised translation process
- Expensive process with heavy in house proofreading
- Legal risk because of delays
- Procedures written by non-natives

- Terminology
- People
- Complexity
- Confidentiality

- From 21 days to 5 days to finalise procedure in local language
- 1,5 FTE saved
- External cost reduction
- Increased consistency in procedures

**Wrap up and Questions**



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