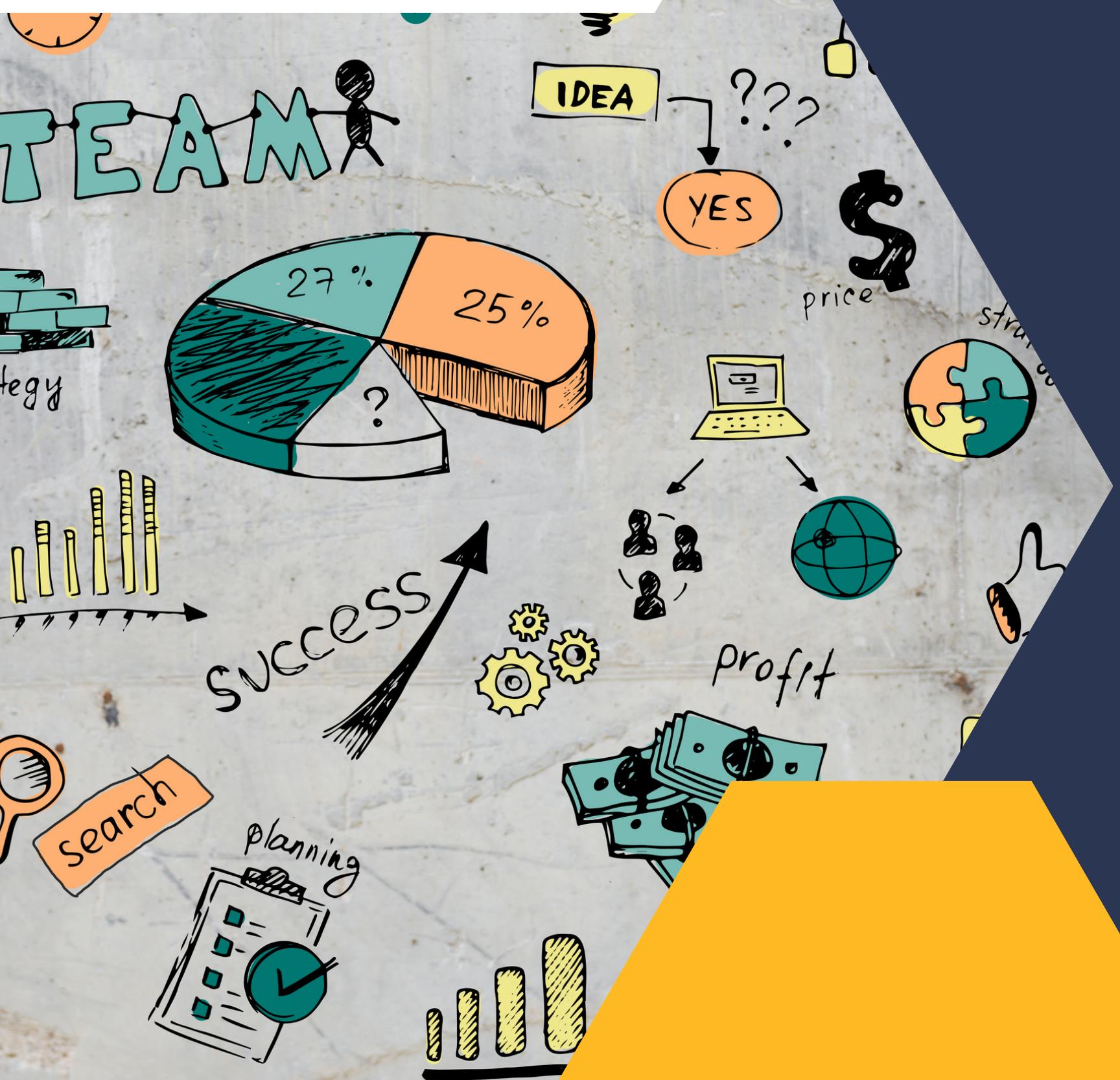


NATIONAL  
BANK

CFA  
Montréal

FINANCE  
MONTRÉAL

SR.ai



POLYFINANCES  
**DATATHON**  
2022



POLYFINANCES

DATATHON 2022

# SCHEDULE

## SATURDAY, NOVEMBER 5 - ATRIUM OF THE J.-A. BOMBARDIER P.

- 9:00 am - Welcome of the participants with pastries and coffee
- 9:30 am - Presentation of the competition by PolyFinances
- 10:00 am - NLP course by SR.AI
- 10:30 am - Break
- 10:45 am - Finance course by National Bank
- 11:30 am - Meeting with sponsors
- ~~~ The rest of the day will be virtual
- Noon - Beginning of the competition + release of the data
- 6:00 pm - Mini game #1
- 10:00 pm - Mini game #2

## SUNDAY, NOVEMBER 6 - VIRTUAL

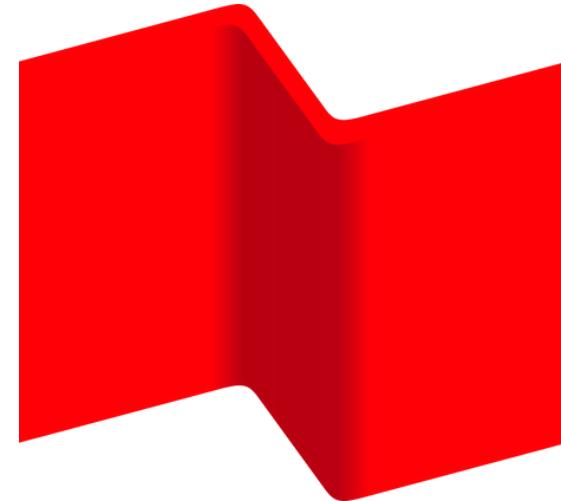
- 10:00 am - Question period with National Bank
- 2:00 pm - Voting for the best data visualization + Prize!

## MONDAY, NOVEMBER 7 - VIRTUAL

- 12:00 am - End of the competition + submission of projects

## FRIDAY, NOVEMBER 11 - POLYTECHNIQUE MONTREAL

- 1:30 pm - Jury presentations begin at the Rolland Gallery
  - Detailed schedule to come
  - Submission of PowerPoints on Thursday evening
- 4:30 pm - End of the presentations
- ~~~
- 5:30 pm - Networking evening at the Atrium of the Lassonde Pavilion
  - Prizes ceremony
  - 10+ companies will be present
  - Drinks will be provided
- 7:30 pm - End of the networking evening



# NATIONAL BANK

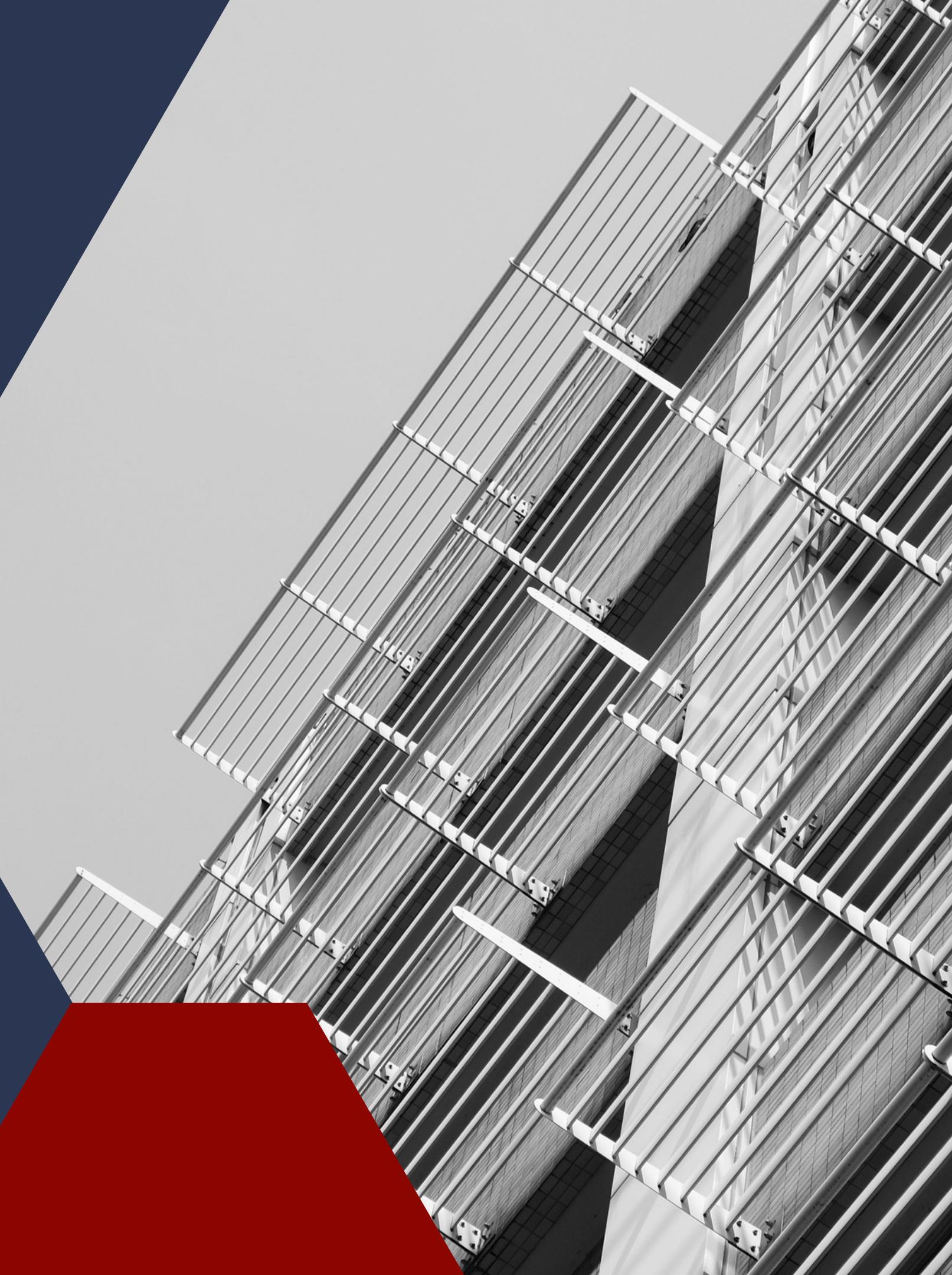




POLYFINANCES

# Presentation of the competition

By PolyFinances





# Plan of the presentation

I. PolyFinances

III. Your challenge

II. Context of the economic situation

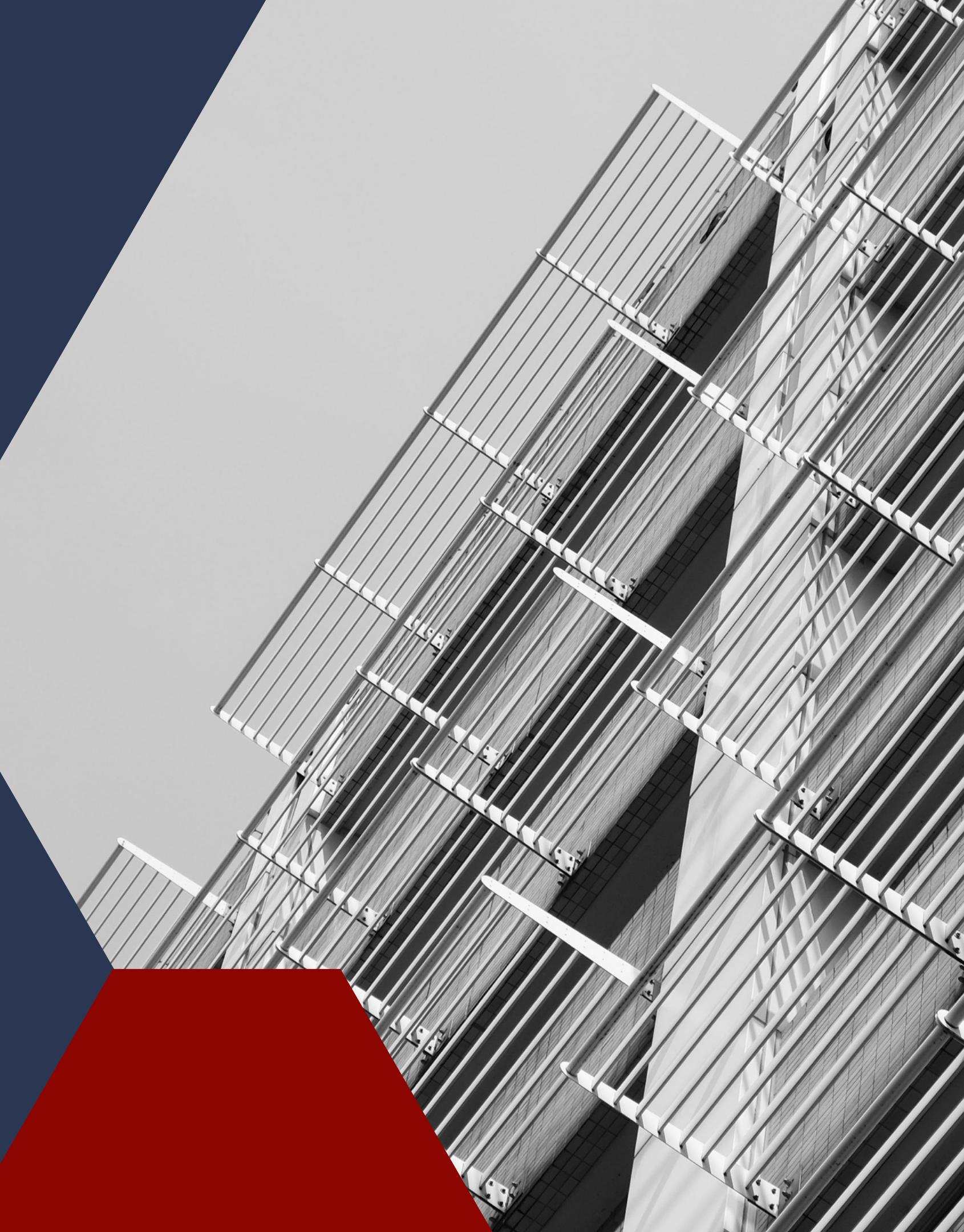
IV. Presentation of the results



POLYFINANCES

# PolyFinances

The engineer at the heart of finance



# PolyFinances

Who are we?



**Une nouvelle génération d'ingénieurs**

Être doté d'une formation multidisciplinaire

Comprendre les dynamiques de marchés

Comprendre les enjeux financiers d'un projet



**Des ingénieurs au service de la finance**

Comprendre l'évolution de l'écosystème financier

Identifier des opportunités de croissance sur le marché

Développer de la technologie au service de la finance



**+85 000 \$**

d'actifs sous gestion



**3**

comités de placement



**+ 6**

mandats en entreprise



**+ 70**

revues mensuelles

# PolyFinances

Innovation and venture capital theme



POLYFINANCES

# Setting the context

Economic situation



# Setting the context

Since the year 2020, the world is in a very turbulent economic situation.

The COVID-19, and then the war in Ukraine, place us in an unstable macroeconomic context marked by rising interest rates and inflation.

In such a context, the traditional exchange rate forecasting models become less efficient. As a result, analysts agree that expectations about central bank monetary policies are having an increasing impact on the markets and on currency movements.

Knowing this, a fund manager, who sees the performance of his model decreasing, mandates you to develop an investment strategy that will allow him to determine in which currency he should invest his money over a given period (CAD vs. USD).



# POLYFINANCES

# Your challenge

# Datathon 2022

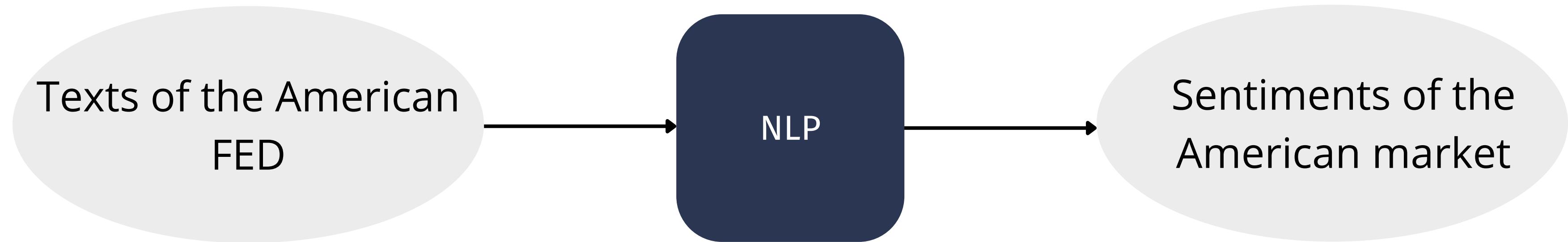


# Your challenge... in 3 steps

1. Extract the feelings of the texts of the American FED.
2. Extract the sentiments from the Bank of Canada's texts.
3. Make a prediction about the conversion rate of the two countries' currencies over a two-week period.

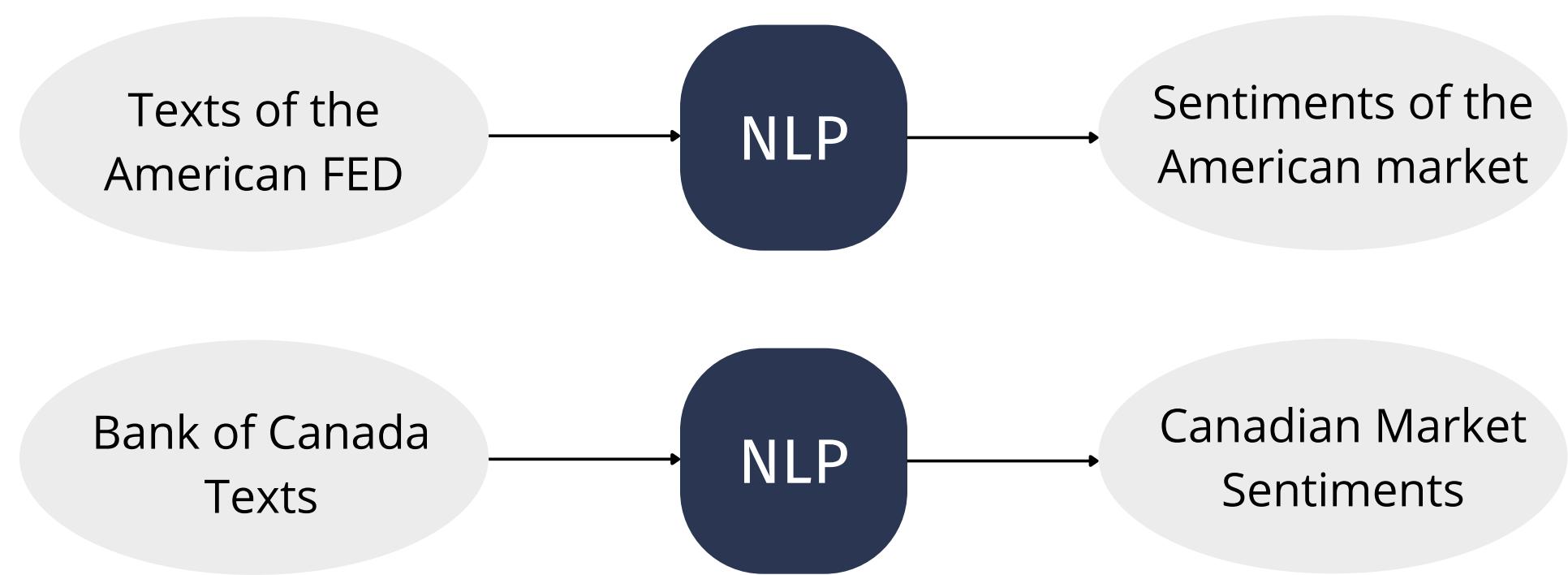
# Your challenge... in 3 steps

1. Extracting Sentiments from the American FED Texts



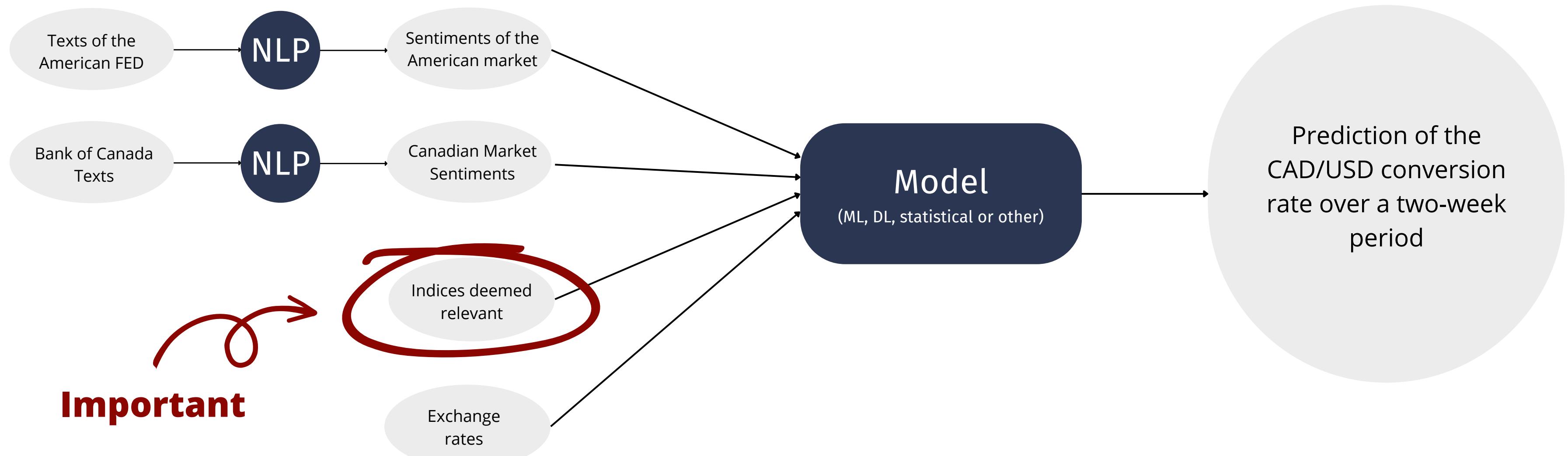
# Your challenge... in 3 steps

2. Extract the sentiments from the Bank of Canada texts.



# Votre défi... en 3 étapes

2. Extraire les sentiments des textes de la Banque du Canada.





POLYFINANCES

# Your presentation

In front of the jury



# Presentation

## Evaluation criteria

Quality of presentation and expression ..... 20%

Content of the presentation ..... 60%

- Your approach to the problem
- Presentation of the models
- Presentation of results
- What you have learned

Model results ..... 20%

Results and your models

Training data .....

- From the beginning of time to May 1st 2022

Test data .....

- Last 6 months
- Present only those data
- Out-of-sample forecasting:  
Your models should never have  
seen those data

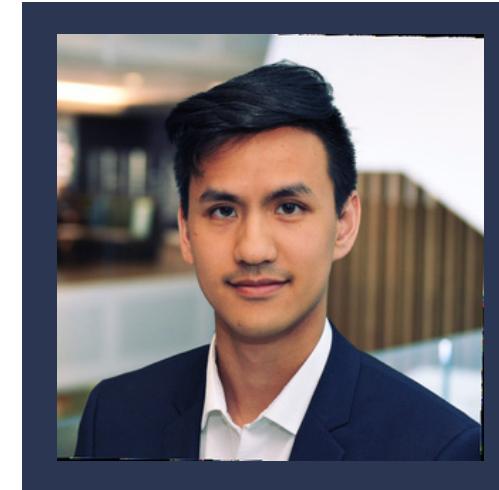


# Votre jury



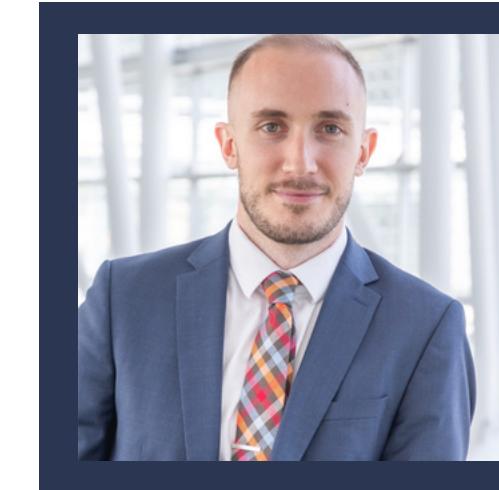
**Julien Crowe**

Senior Director AI  
factory  
@ Banque Nationale



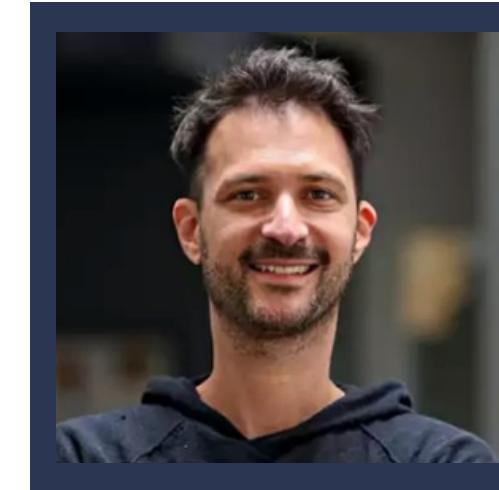
**Paul Daigle**

Lead data scientist  
@ SR.AI



**Jeremy Moreau**

Director, Data &  
Advanced Analytics @  
Ivanhoé Cambridge



**David Ardia**

Professor - Researcher  
in Quantitative  
Methods for Finance



**Robert Normand**

Researcher  
Project Director  
@ Cirano

# Prizes to win!

2ND PLACE  
→ 1000\$

1ST PLACE  
→ 2000\$

3RD PLACE  
→ 500\$

---

PARTICIPATION PRIZE  
→ Best Visualization

PARTICIPATION PRIZE  
→ Best Innovation

PARTICIPATION PRIZE  
→ Mini-games

# Our advice

*Attend the presentations & workshops !*

*Look at the literature on the subject!*

*Ask questions!*

*Divide the tasks according to your strengths!*

*Be methodical!*



**Have fun!**