



pymetrics

a Harver Company

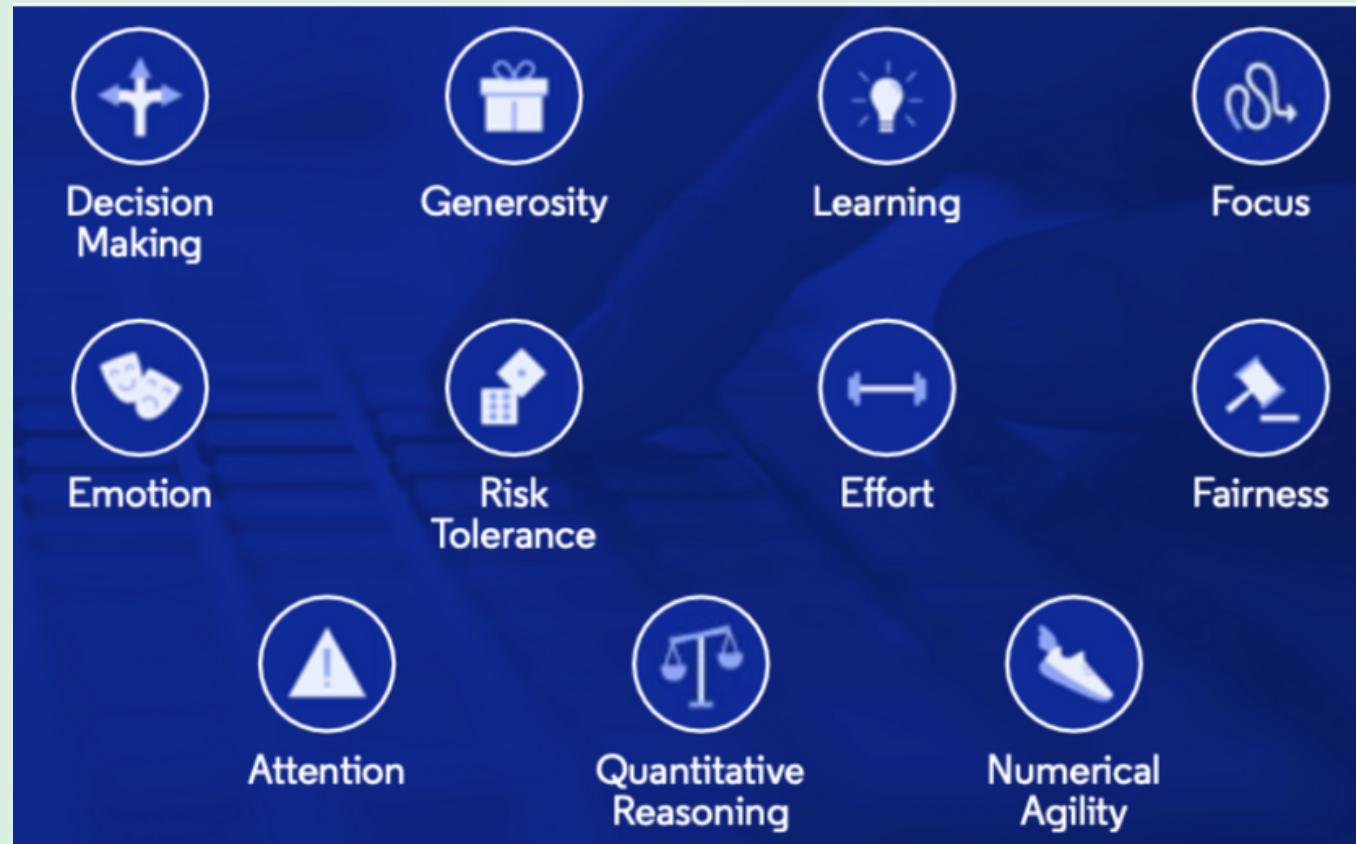
Presenters:

Professor: Patricia BAUDIER

CONTEXT

WHO ARE WE?

Behavioral Measurements



PYMETRICS

American company, 2012

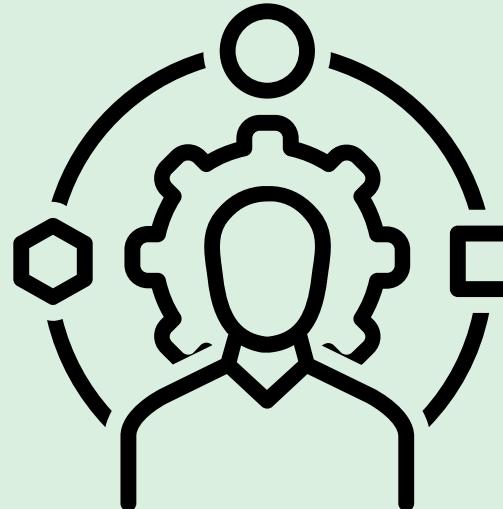
B2B SERVICE

Helps evaluate and develop soft skills; Ideal for the HR department for hiring and continuous evaluation of staff.

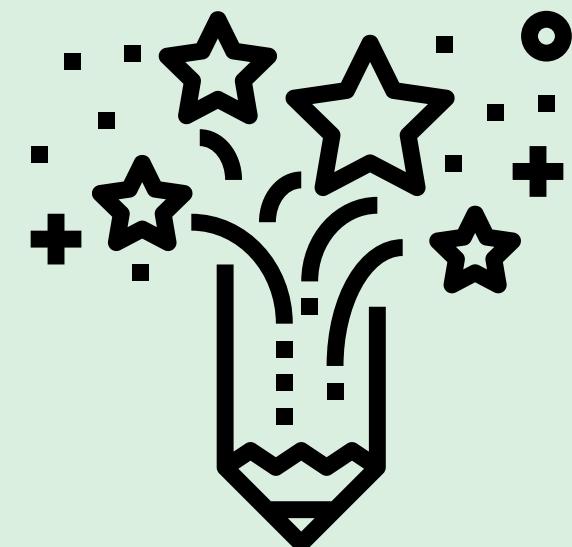
METHOD

Gamified behavioral assessments and artificial intelligence

WHY PYMETRICS



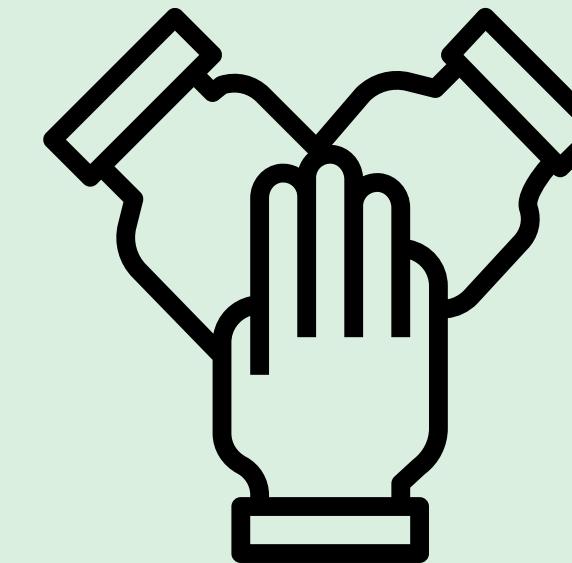
ADAPTABILITY



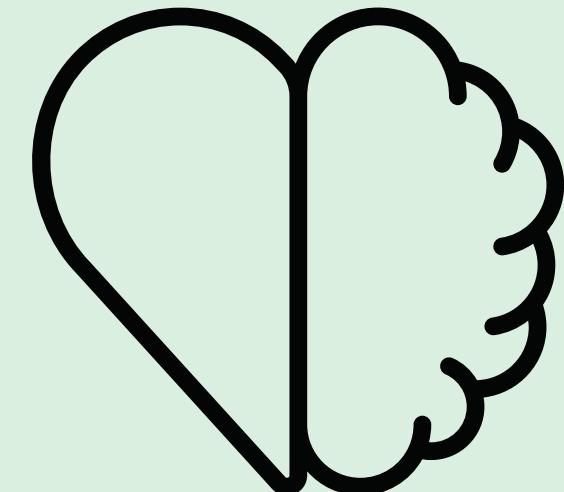
CREATIVITY



TIME
MANAGEMENT



COLLABORATION



EMOTIONAL
INTELLIGENCE

MAIN SOFT SKILLS

Our threat model is intentionally abstract to cover a wide range of potential malicious behaviors. One possibility is that a client could supply an *in group* dataset that contains information from a demographically homogeneous group of employees. Another possibility is that a client could lie by (1) having a single employee play pymetrics' games 50 times and then (2) supplying pymetrics with fabricated performance data for 50 imaginary employees.

In our testing, we were unable to circumvent the fairness checks in pymetrics' source code by manipulating *in group* data. All control flow paths in the Jupyter notebook eventually arrived at the adverse impact tests. We could generate *in group* data that would cause the model search to fail the adverse impact tests, but the model deployment process could not continue unless a compliant model was produced. Alternatively, in some cases the model building process was able to successfully de-bias our malicious *in group*, which also meant that our attack had failed.

OVERCOME THE BIAS AND DISCRIMINATION EFFECTIVELY

89%

HR LEADERS THINK FAILED
HIRES WERE DUE SOFT SKILLS

2/3

JOBS WILL BE SOFT SKILLS
INTENSIVE BY 2023

41%

EXTENDED TENURE DUE TO THE
INCREASE IN INTERNAL MOBILITY

59%

ORGANIZATIONS KNOW THEIR
LACK OF QUALITY SOFT
SKILLS DATA

ACHIEVEMENTS

Company: A U.S.-based debt collection agency (2017)

Objects: 144 current Account Representatives

DATA: One month: “Highly recommended(Hr)” -> rated 30% higher than “Recommended”;

Six month: 30% -> 53%;

Tenure: “Hr” -> 13% less likely to leave compared to the others;

Salary:

1. First Month: “Hr” median -> over \$2300 higher than “Not recommended” (\$3200 and \$825 respectively);
2. Six Month: \$2300 -> \$8400

PYMETRICS DATA (ACHIEVEMENTS)

53%

further rate improvement in 6 months

144

top performing employees assessed

3.8X

better collection rates

198%

longer tenure

\$3,200

each collected first month

POLITICS



Leibniz : "God calculates the best possible world for us"

- 1) BUILD/STRENGTHEN THE ARTIFICIAL INTELLIGENCE ECOSYSTEM IN FRANCE AND EUROPE
- 2) ENGAGE IN A POLICY OF OPENING UP DATA IN ORDER TO ENCOURAGE THE EMERGENCE OF ARTIFICIAL INTELLIGENCE CHAMPIONS IN FRANCE
- 3) IMPLEMENT A FRENCH AND EUROPEAN PUBLIC STRATEGY THAT WILL ALLOW IN CERTAIN SECTORS TO DEVELOP AND ACCELERATE FRENCH PRESENCE IN INTERNATIONAL COMPETITION
- 4) THINK ABOUT THE TERMS OF A POLITICAL AND ETHICAL DEBATE

ECONOMIC

1. External balance
2. Debt
3. Inflation

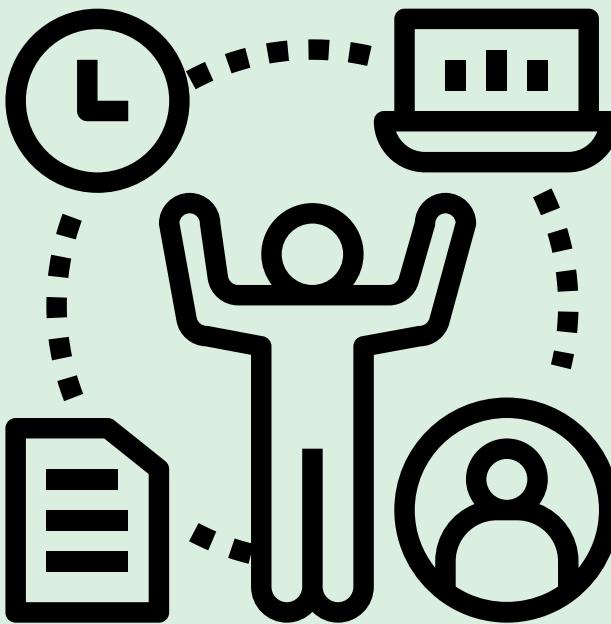


SOCIAL

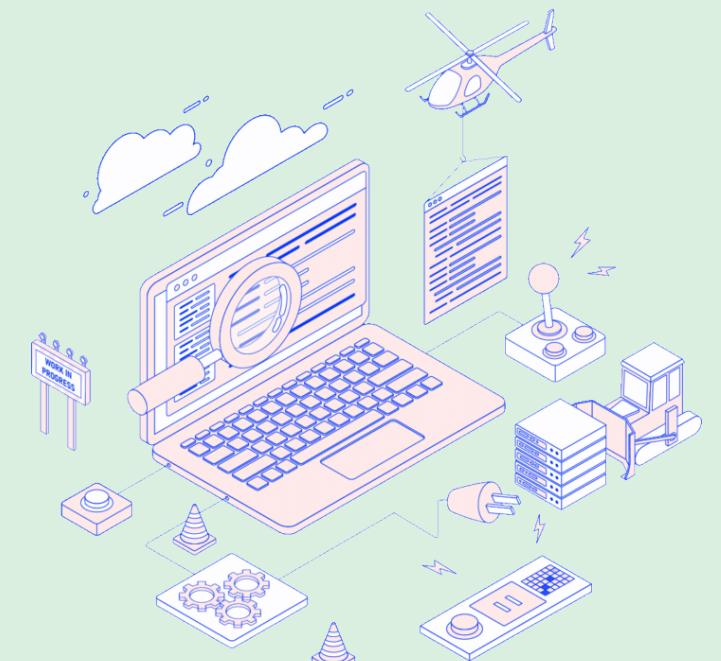
1. QUALITY OF LIFE IS A KEY MOTIVATOR FOR THE FRENCH SOCIETY



2. SOFT SKILLS ARE MORE IMPORTANT THAN TECHNICAL SKILLS



3. 79% OF THE FRENCH POP. ARE INTERESTED IN TECHNOLOGY AND 71% THINK IS AN ADDED VALUE IN THE PROFESSIONAL LIFE



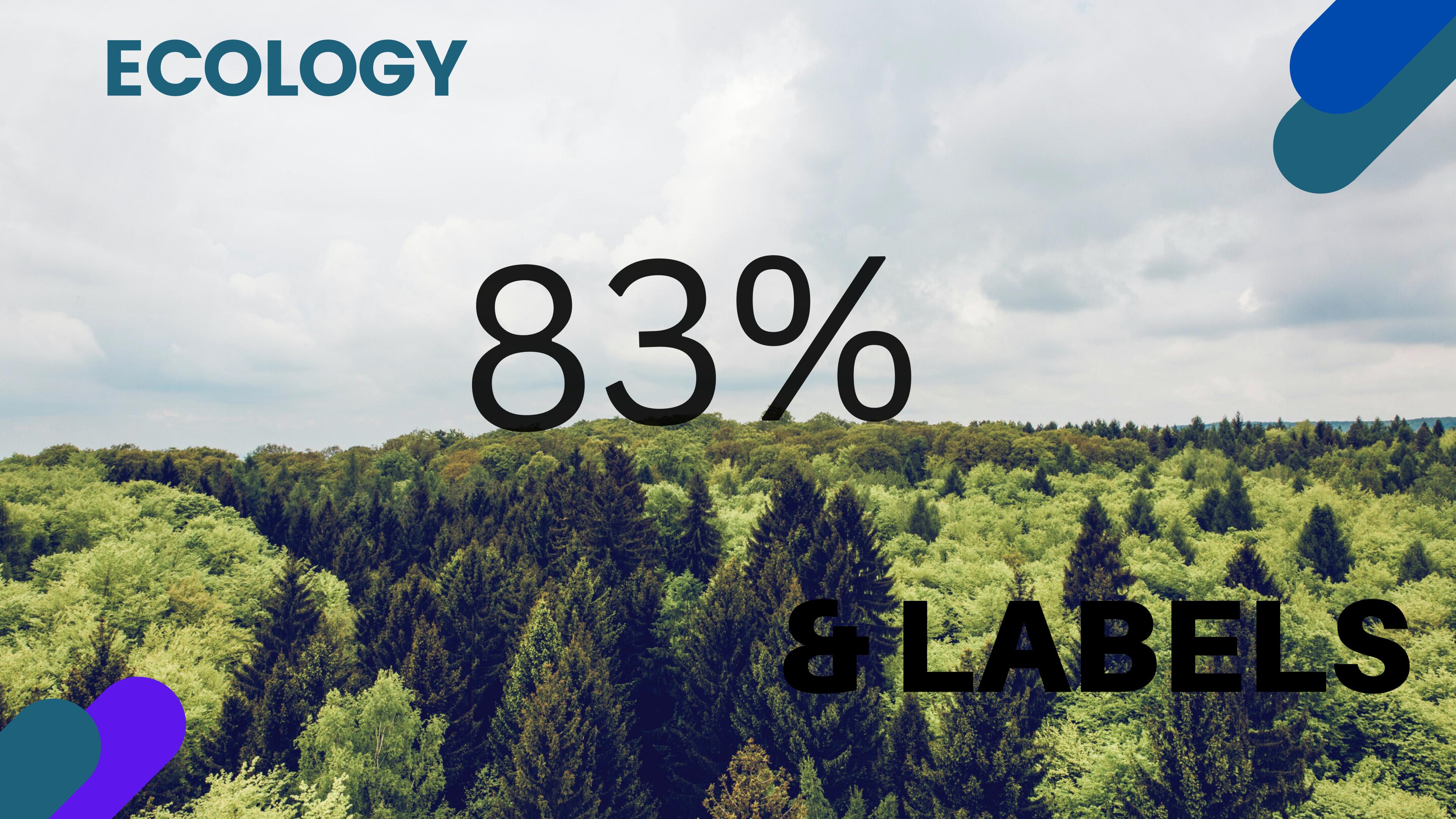
TECHNOLOGY

Core Technology: AI(Base), Behavior Analysis, Facial Recognition etc.

How it works: Translating these behavioral data into actionable insights and talent matching recommendations. Using data-driven behavioral insights and audited AI to create a more efficient, effective, and fair hiring process across the talent lifecycle.

Budget for technology development in France:

- French government plan to invest 34 billion euros for technological innovations.
- French government published the national strategy for AI in April. 2021 and invested 1,5 billion euros in it.



ECOLOGY

83%

& LABELS

LAW

"The training of employees by the employer is compulsory in order to enable employees to adapt to their jobs and to ensure that they maintain their ability to hold a job."

"For this, companies can draw up a skills development plan which aims to describe all the training courses they offer to their employees in order (...) to offer them training courses which contribute to the development of their skills (...)".

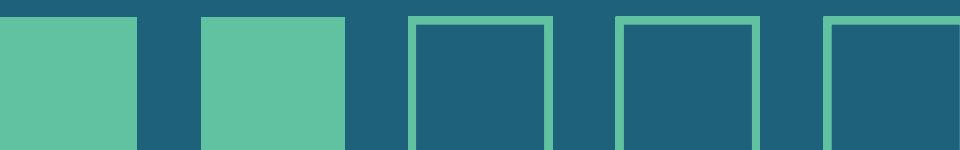
"In terms of vocational training, any company that employs employees must participate in the financing of vocational training."

Porter

COMPETITION



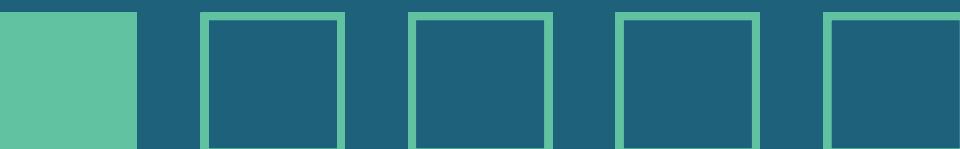
SUPPLIERS



NEW ENTRANTS



CUSTOMERS



SUBSTITUTES



STRENGTH

- Saves time and workforce.
- Evaluate staff in a more proper and well rounded aspect
- Avoid bias

WEAKNESSES

- Cannot avoid all bias (Daltonism, ADHD)
- Needs professionals to update data frequently (Maintenance)

OPPORTUNITIES

- Soft skills are more important than technical ones
- Value well-being and quality of life
- 15/18 position of stock of soft skills

THREATS

- Agencies teaching tactics to the evaluations (Games)
- Several low barriers to enter the industry

PRODUCT

12

games

25

minutes

98%

completion rate



Effort



Risk
Tolerance



Decision
Making



Attention



Focus



Learning



Fairness



Generosity



Emotion

Game 1 instruction

<https://youtu.be/c63Epbo836o>

PRODUCT

4

games

7-10

minutes

98%

completion rate



Numerical
Agility

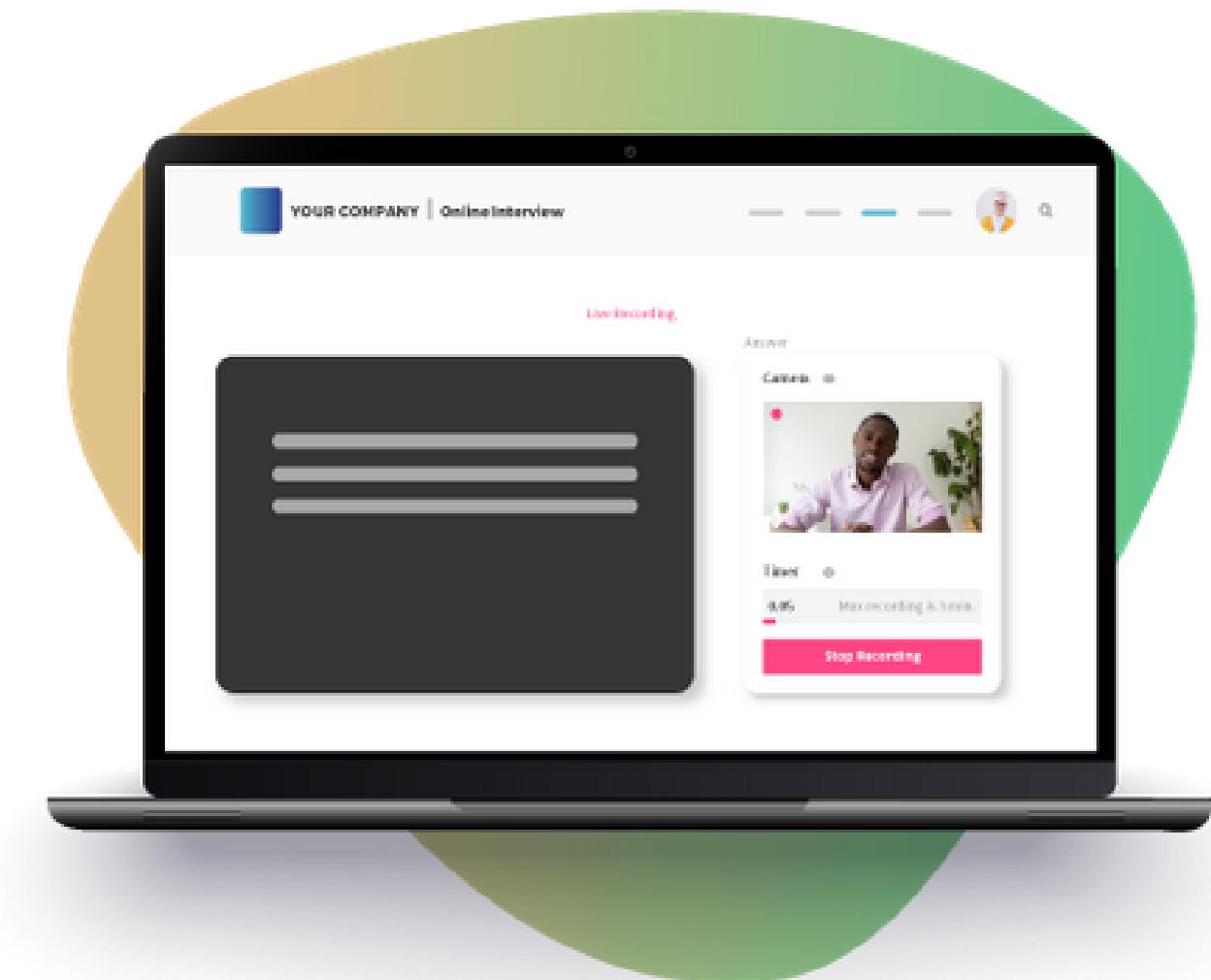


Quantitative
Reasoning

PRODUCT

Digital interview

In an integrated platform for candidates and recruiters, the video interview builds on our gamified assessments, providing a comprehensive evaluation of every candidate.



PRICE

Light Package

10-50 staffs

One Campaign

Assessment Report

Ease the HR Group

Business Psychology

€ 499/campaign

Medium Package

50-500 staffs

One Campaign

Assessment Report

Ease the HR Group

Business Psychology

€ 899/campaign

Large Package

500+ staffs

One Campaign

Assessment Report

Ease the HR Group

Business Psychology

€ 1699/campaign

PLACE
DIRECT SALES
THROUGH HR AGENCIES



PROMOTION

BRIEF

The purpose: to launch Pymetris in France. .

We expect: brand awareness and start selling.

We want to use the cognitive strategy

We expect the use of social media campaigns,
billboards, and events.





Meet Laetitia



Human Resources Manager



32 Years Old



Bachelor's Degree



Preferred Social Network



Laetitia's Job



Manufacturing



500 + Employees



Communication



Tools Needed



Hiring, Evaluating, Developing



Productivity, Turnover, Satisfaction



Reports to HR director



Productivity, Retention



Conferences, News, Social



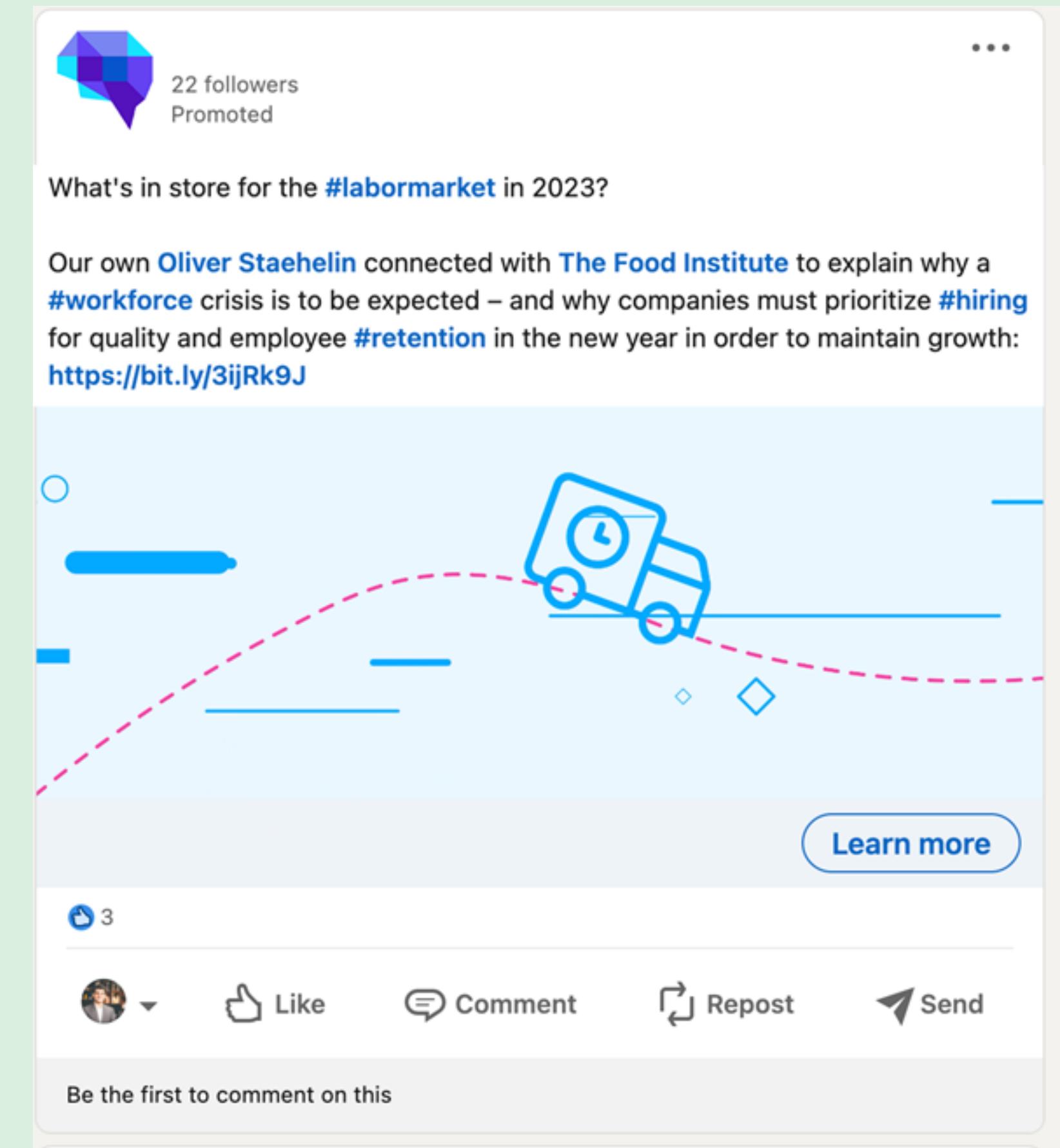
Morale, Disorganization

MARKETING PLAN

BUDGET

MEDIA

LINKEDIN



MEDIA

BILLBOARDS



NON MEDIA

1. Direct Marketing:

- E-mail (personalized), SMS;
- Phone Marketing (B2B, B2C);
- Flyers;
- Bid

2. Sales Promotion:

- 10 months pay for annually service (buy 10 get 12);
- Black Friday (Direct Promotion);
- Free Trial (For an individual or few staffs in company)

NON MEDIA

3. Public Relations:

- a. Give speeches in HR related or AI related conferences in France;
- b. Enterprise guided tour (in French branch company).

4. Sponsorship and sponsoring:

- a. Sponsor the meetings;
- b. Sponsor some museums in France.

NON MEDIA

Museum
Sponsorships



Brought to you by
 **pymetrics**

NON MEDIA

5. Events



Merci pour votre écoute!

Presenters:

Professor: Patricia BAUDIER