

**Ekimetrics.**

**Hackathon**

**2025**

PARIS | LONDON | NEW YORK | HONG KONG

**Ekimetrics.**  
Data science for business

# Agenda

**9:30 AM – 9:45 AM:**

Welcome breakfast/coffee

**9:45 AM – 10:30 AM:** Introduction & hackathon kick-off

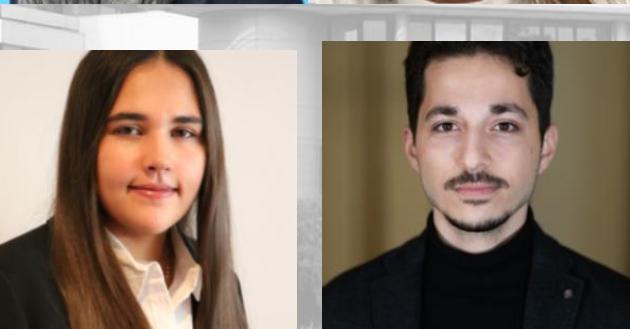
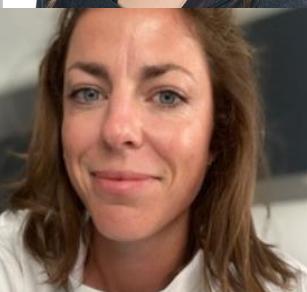
**10:30 AM – 4:30 PM:** Hackathon (with a lunch break at 12:30 PM)

**4:30 PM – 5:30 PM:** Team presentations  
– 10 min presentation + 5 min Q&A per team

**5:30 PM:** Final Q&A session + casual drinks & snacks



# The ESSEC Squad



# Alumni ESSEC – Axel



**Axel  
MAHOUNGOU  
Senior Consultant**

## EDUCATION

ESSEC MSc. in Management (*Grande Ecole* Program) 2014-2017

## EKIMETRICS PATH

2018-06 : Junior Consultant  
2021-02 : Consultant  
2022-07 : Senior Consultant

## MISSIONS

- MMM BNP Paribas Fortis
- MMM L'Oréal BETiQ UK
- MMM L'Oréal BETiQ US
- MMM Doctolib Germany
- MMM Haleon/GSK
- Nissan End Funnel Reporting
- Nissan Loyalty
- Nissan Pricing Dashboard
- L'Oréal Cross Divisions Reporting

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# Ekimetrics in a nutshell

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Ekimetrics.

**Leader in data science  
and AI-powered  
solutions for sustainable  
business performance  
with +350 clients and  
+1,000 projects  
worldwide.**



NEW YORK

LONDON

PARIS

HONG KONG

SHANGHAI

**WE ARE A PURPOSE-DRIVEN COMPANY  
WITH SUSTAINABILITY AT THE CORE  
OF OUR DNA.**



**+17**

**YEARS**

Experience in data science

**+400**

**DATA EXPERTS  
& INDUSTRY  
SPECIALISTS**

Worldwide

**+50**

**COUNTRIES**

Where we lead projects

Pending  
**B-Corp**  
By 2024

**+10 millions**  
**tCO2e**  
savings objective on  
behalf of our clients by  
2030

**100%** of employees  
trained to  
environmental issues



**Ekimetrics.**

# Our mission and purpose

Data Science for sustainable business transformation

## A good company

Delivering Data Science for business solutions **since 2006** with **400+ tech profiles** in 5 countries

A company that **commits to higher standards & responsibilities**, on the road towards BCorp in 2022 and Net Zero in 2025

One of the 30/150 precursor members of the "**Convention des Entreprises pour le Climat**"



## Doing sustainable AI

100% of Eki employees **trained and aware on social & environmental challenges** (Climate Fresk, Climate trainings, Vendredi challenges).

**Strongly against using technology for the sake of technology.** We invest in R&D to develop unbiased and low-carbon footprint AI algorithms, and always rethink why we solve problems and how we can develop frugal tech solutions.

**Open sourcing** our best practices on our Eki.Lab website  
<https://ekimetrics.github.io/>

## For positive impact

**Partnerships** with sustainability & climate specialists



Active member of the "tech for good" ecosystem



**AI for Sustainability** solutions help businesses perform within the planetary boundaries and transition to a low-carbon economy

# Build analytics capabilities and enhance your actions and decision-making power



## TRANSFORM AND GROW YOUR BUSINESS

Data Architecture & Governance

Data & Analytics Platform

Data Roadmap Management

AN EKI OFFER  
TO ENHANCE  
YOUR ACTIONS  
& DECISION-MAKING  
POWER



Live Mkt ROI

Digital Excellence

Brand Equity

Pricing Efficiency

## CUSTOMER ANALYTICS

PUT THE CUSTOMER AT  
THE HEART OF BUSINESS

Tailored Experience

E2E Journey

Sentiment Analysis

Recommendation Engine



E2E process automation & improvement

Stock optimisation

New products & services



## ACT NOW TO BUILD YOUR BUSINESS WITHIN PLANETARY BOUNDARIES

Transition & Impact Score

AI Eco-Design

E2E sustainability footprint organisation

**Trusted by  
+350 clients,  
leaders in data  
& sustainable  
transformation**

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# Kick off Hackathon

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Ekimetrics.

# The Hackathon Team

The entertainment team



Jury n°1



Jury n°2

# Objectives

# Hackathon Use Case



**Our client is P&G, or Procter & Gamble, a multinational consumer goods corporation.**

Founded in 1837 by William Procter and James Gamble, the company specializes in a wide range of personal health, personal care, and hygiene products. P&G organizes its products into several segments. As of 2024, these segments and some of their main brands include:

- **Beauty :** Head & Shoulders, Herbal Essences, Pantene, Olay, Old Spice, SK-II
- **Grooming :** Gillette, Venus, Braun
- **Health Care :** Crest, Oral-B, Vicks, Metamucil, Clearblue



**How can we help P&G to avoid greenwashing statements in their communications with AI?**

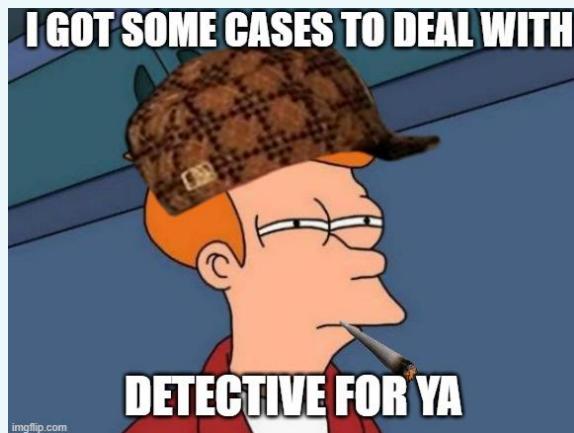


## Greenwashing - definition

The practice of making misleading statements, obscuring information, and diverting attention from sustainability performance.

*Source: Carmichael et al., 2023.*

Right now  
A few examples.... ...



# Using vague words, without explanations



# Presenting false perfection\*



\* False perfection is a technique that consists of presenting the entire product as "ecological", when only one element is the subject of an eco-responsible approach.

# Confusing visuals



**One might think that the company is taking its responsibilities...  
While it simply respects the law...**



# Vague words to maintain the myth of the "clean car"

10 000 QUESTIONS  
7 RÉPONSES

**"Rouler vert,  
ce n'est pas trop cher?"**

NOUVEAU  
**KONA HYBRID**  
À POCHE **24.499 €\*\*\***  
Offre actuelle Ecobonus\*\* inclus



Découvrez toutes les conditions Salon sur nos 7 motorisations.  
Bienvenue chez votre distributeur Hyundai.

Sans hésiter  HYUNDAI

# Making low-carbon commitments without a viable strategy



# Display a fake label

Examples of possibly deceiving labels	Examples of reliable certifications
      	       

In 2020, a study by the European Commission found that **53%** of environmental claims in the European Union were **vague, misleading, or unfounded**, while **40%** were not **supported by evidence**.

# Why is it important to NOT DO greenwashing?

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## Economic issues

**Consumer trust:** Poor communication can damage a brand's reputation and lead to financial losses.

**Competitive advantage:** Adopting a truly eco-responsible approach can help differentiate yourself in a competitive market.



## Societal issues

**Ethics and transparency:** Consumers want clear and honest information. Deceiving the public undermines the relationship of trust between companies and society.

**Citizen education:** Greenwashing can misinform about real environmental issues and divert attention from pressing issues.



## Environmental issues

**Delaying effect :** If companies simply appear "green" instead of changing their practices, it slows down the ecological transition.

**Misappropriation of resources :** Investment in misleading green marketing could be used for actions that are truly beneficial to the environment

# Why talk about greenwashing now?

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The subject has become central as consumers, investors and regulators demand more transparency. In addition, pressing climate issues make it crucial to identify and combat deceptive practices to foster truly sustainable initiatives.

- A growing demand for sustainability among consumers.
- Investors integrate environmental, social and governance (ESG) criteria into their decisions.
- The climate and environmental emergency that requires concrete and measurable actions.
- Increased regulatory pressure and planned sanctions.

# EU vs Greenwashing: Green Claims Directive

In March 2023, the Commission adopted a proposal for a directive on environmental claims\*

For all companies operating in the European market:

## Key measures

- Clear criteria on how companies must prove their environmental claims and labels.
- The obligation to have these claims and labels verified by an independent and accredited auditor.
- New governance rules for environmental labelling schemes to ensure their robustness, transparency and reliability.

*\*Environmental claim = a message affixed by the manufacturer to a product, packaging or advertisement, which aims to enhance the product's environmental value.*

## Penalties

In case of non-compliance with the directive, fines can be up **to 4% of** the company's annual turnover in EU member states, or €2 million if turnover information is not available.

*Source: GCD*

**How can we help P&G to avoid greenwashing statements in their communications with AI?**

# How can we adopt agents to help P&G avoiding greenwashing statements in their communications ?

1

**Detect greenwashing in a communication** ★

2

**Adapt a communication to make it impactful without greenwashing** ★★

3

**Make a solution using AI agents to help marketing team in their communication creation** ★★★

# Resources & Deliverables

- **Access to a LLM API (with Groq)**
- **Code samples and explanations**
- **Law text linked to communication**
- **The 2024 Financial report of P&G**

## Deliverables

- **A presentation of your solution in front of a jury at the end of the day (10min + 5min Q&A)**

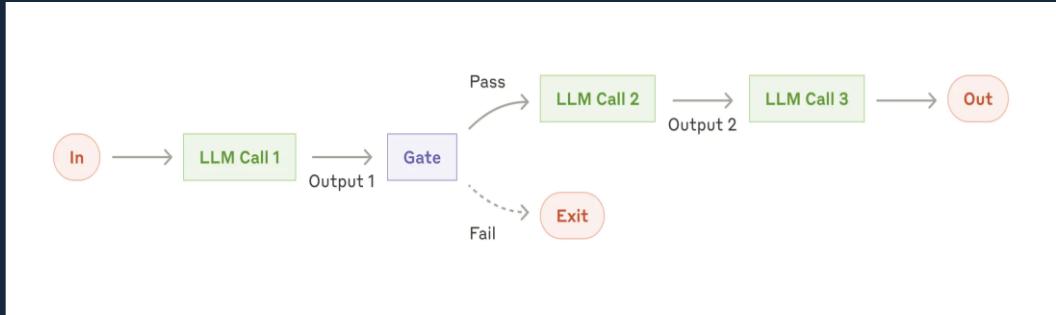
You will be assessed on the relevance of the proposed solution, the technical choices you made, and the code produced and its ability to work correctly.

# Tools & Resources

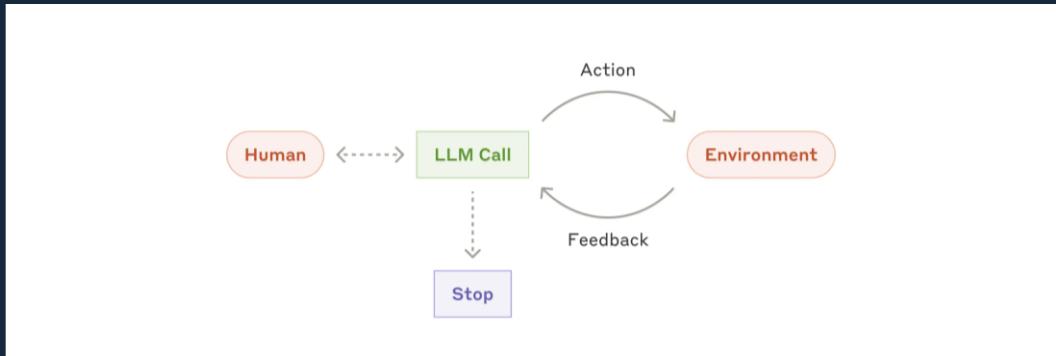
# AI application : Agents vs workflows

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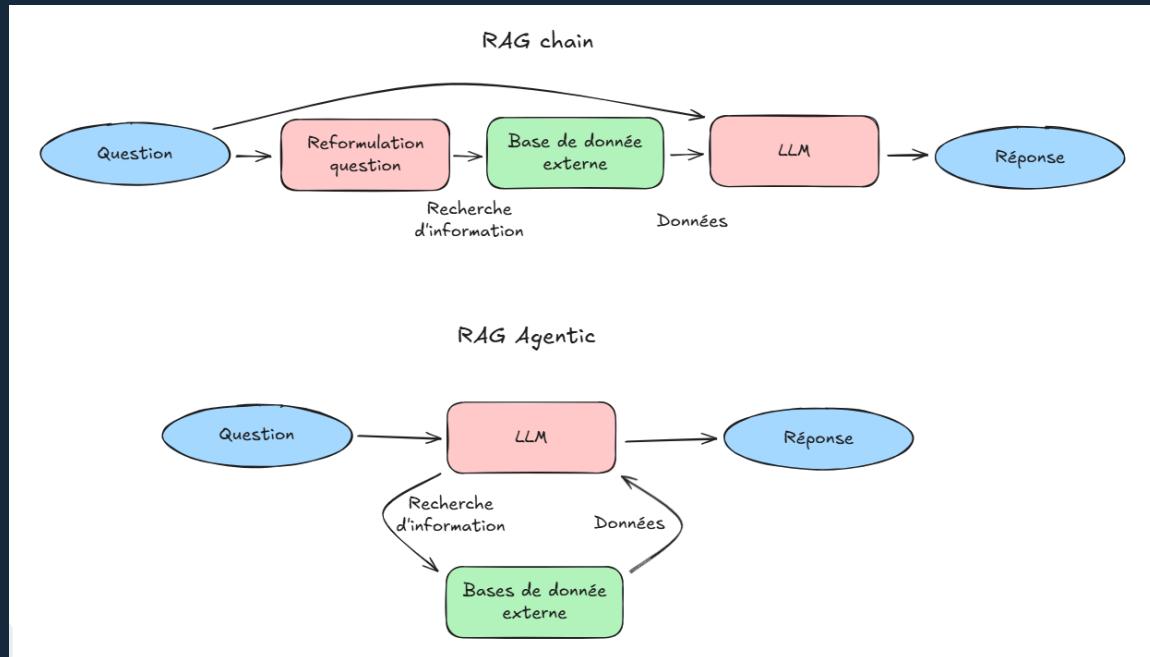
**Workflows** are systems where LLMs and tools are orchestrated through predefined code paths.



**Agents**, on the other hand, are systems where LLMs dynamically direct their own processes and tool usage, maintaining control over how they accomplish tasks.



# Agent vs workflows : The RAG exemple



*Agents are typically just LLMs using tools based on environmental feedback in a loop.*

# Agents: Implementation with OpenAi Agents python package

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```
import asyncio

from agents import Agent, Runner, function_tool


@function_tool
def get_weather(city: str) -> str:
    return f"The weather in {city} is sunny."


agent = Agent(
    name="Hello world",
    instructions="You are a helpful agent.",
    tools=[get_weather],
)

async def main():
    result = await Runner.run(agent, input="What's the weather in Tokyo?")
    print(result.final_output)
    # The weather in Tokyo is sunny.

if __name__ == "__main__":
    asyncio.run(main())
```

## Tips to make a good agent

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- Write detailed instruction to the agent about his role and the tools it can use
- Tools are just python function. Good arguments names, typing and docstring will help the agent to use the tool
- You can use simple AI workflow if you find it more suitable

# Some useful links

- [Google Drive](#)
- LLM Api (Groq) : [GroqCloud](#)
- Python package to build apps with LLM : [Introduction](#) |  [LangChain](#)
- Some framework to make an app with python :  
[Gradio](#)  
[Streamlit documentation](#)  
[Overview - Chainlit](#)

# Google Drive link



# The Hackathon Groups

Group	Floor	Room	Mentor	Jury
Group 1	7	Ariane	Hannah + Raphael	Salome, Jacques et Noémie
Group 2	7	Galileo	Hannah + Raphael	Salome, Jacques et Noémie
Group 3	7	Apollo	Hannah + Raphael	Salome, Jacques et Noémie
Group 4	-1	Juno	Haitham + Youssef	William, Vika, Miguel
Group 5	-1	Wind	Haitham + Youssef	William, Vika, Miguel
Group 6	-1	Dragonfly	Haitham + Youssef	William, Vika, Miguel
Group 7	3	OSS 117	Jacques	William, Vika, Miguel