



# Innovarpel 2025

TECHNICAL DAYS

**DIGITAL TRANSFORMATION  
& INDUSTRIAL CYBERSECURITY**  
IN THE OIL&GAS INDUSTRY

arpel  60  
YEARS

**JUNE, 24 & 25**  
**Rio de Janeiro, Brazil**

# Internal Audit Transformation Journey

**Silvia Lopes Santa Isabel**

Gerente de Auditoria Digital - PETROBRAS

What comes to  
your mind when  
you think of  
Auditing?



# Challenges of Traditional Auditing



## Speed of Change

Difficulty in keeping up with the speed of digital transformations



## Manual Analysis

Complexity in analyzing large volumes of data



## Need for Agility

Demands for faster auditing processes



## Predictive Insights

Need to predict future trends and outcomes



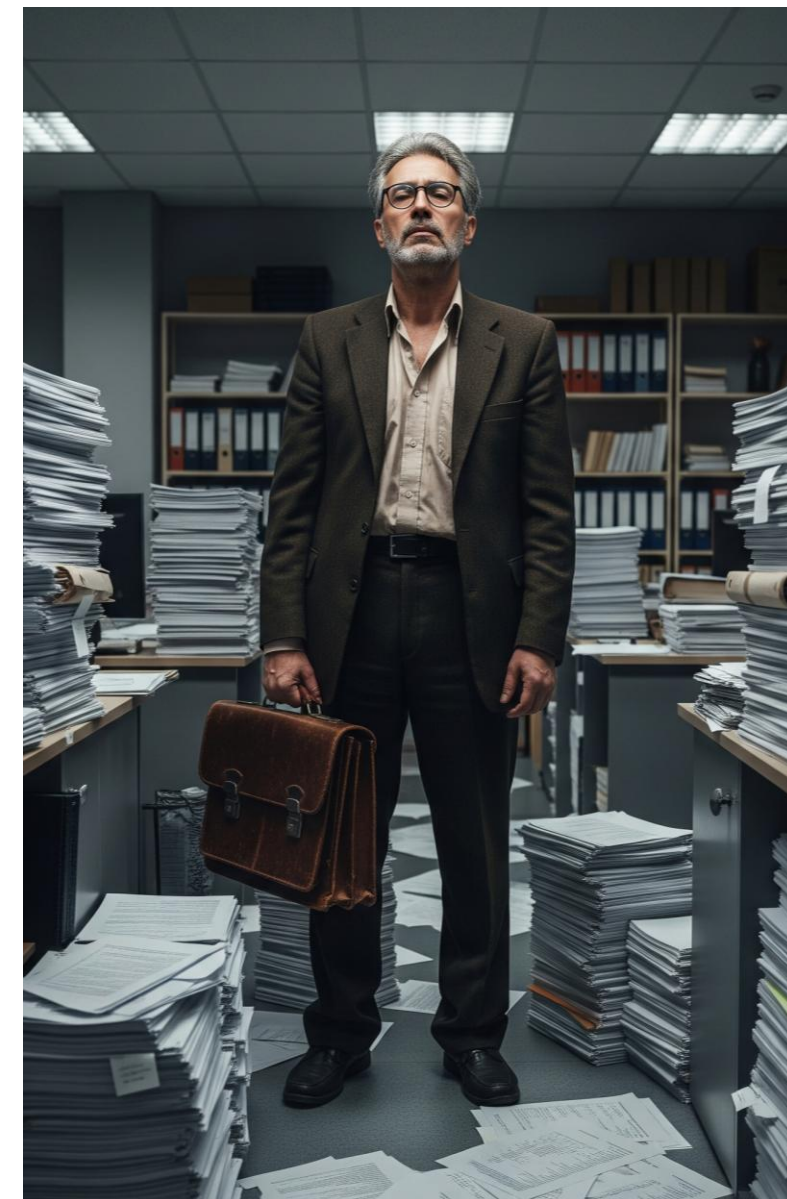
## Petrobras Context

Environment with diverse and complex processes



## Team Qualification

Cultural transformation and development of new skills







# Who are you in the New Digital Age?

# Transformation of traditional practices at Petrobras

(Timeline)

**2021**

## **Agile Audit**

Application of agile concepts in the audit process aiming at efficiency gains and improved interaction with stakeholders

**2023**

## **AUDLABS**

Space for experimentation and implementation of digital solutions and dissemination of knowledge ("Upskilling")

**2025**

## **AI Solutions**

RAÍ – Internal Audit Robot (intelligent assistant)  
MAIA Project (using AI to turn images into data)

**2022**

## **Digital Audit**

Creation of the nucleus to instrumentalize digital products for the audit activity.

**2024**

## **“Inova AÍ”**

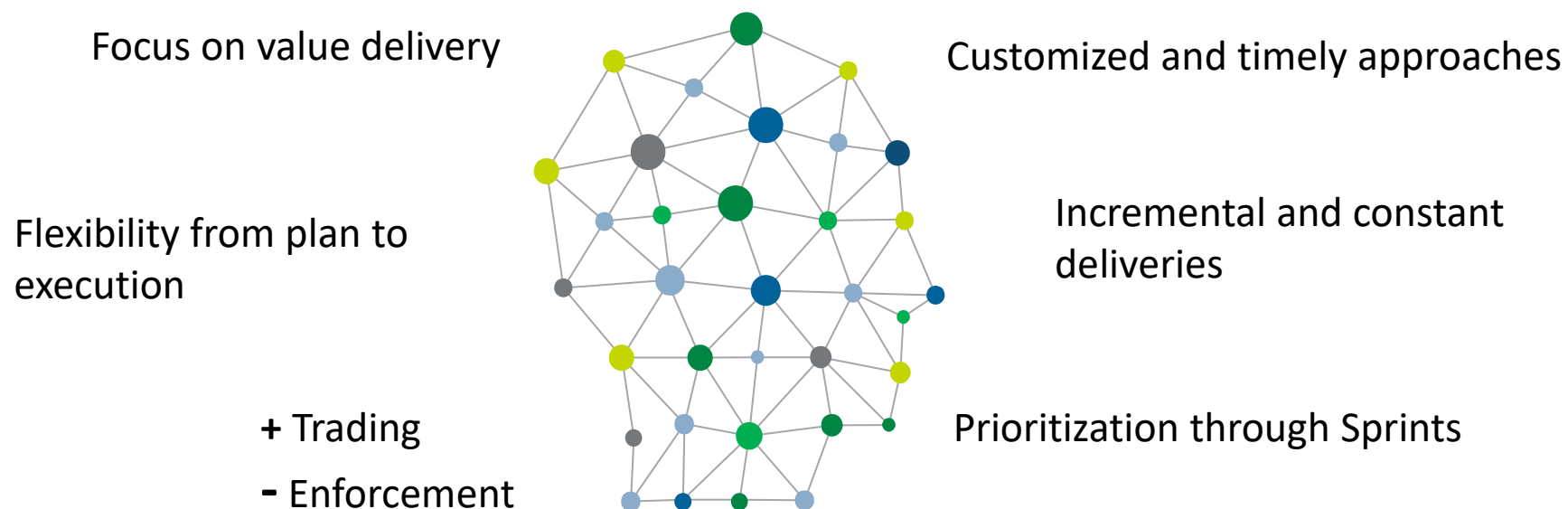
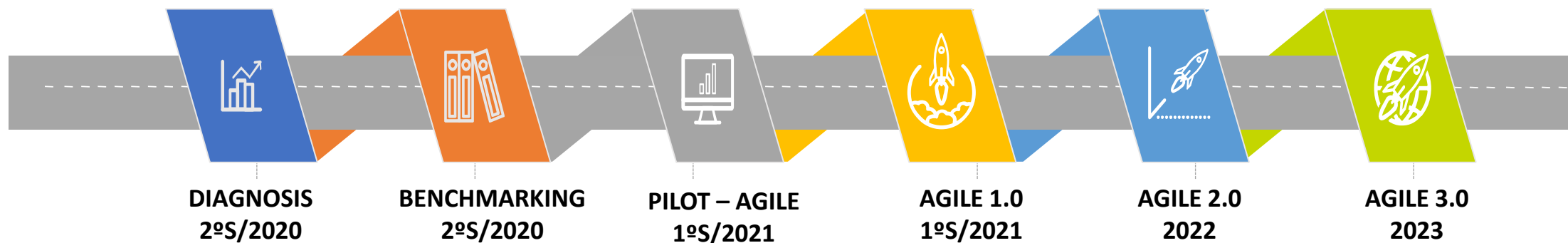
Creation of the Innovation office, conducting ideation workshops (Design Thinking)



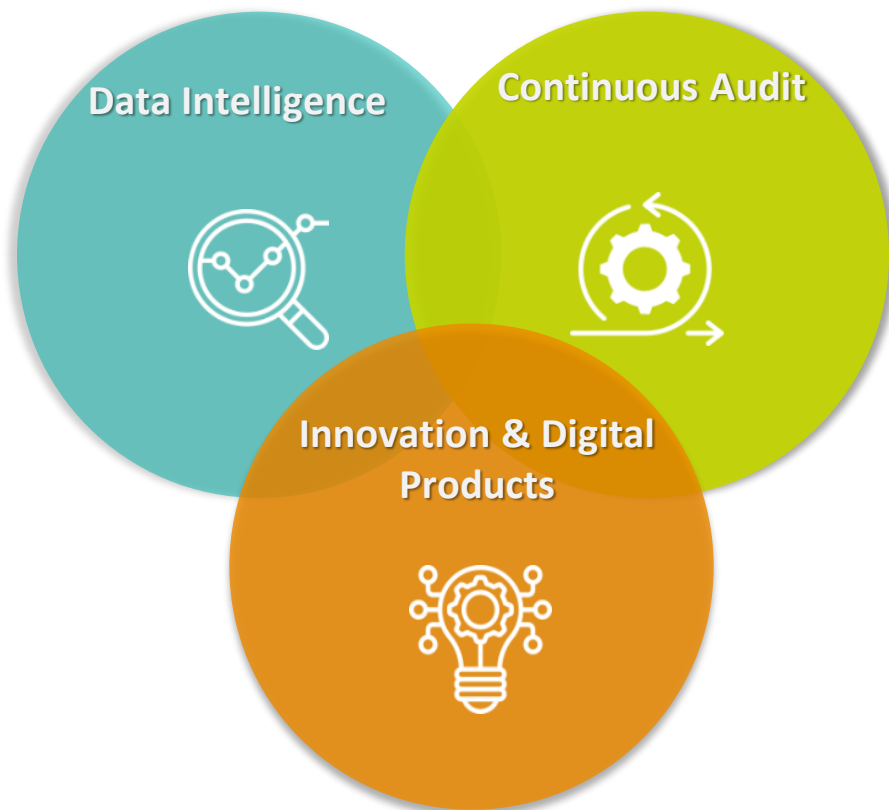


# Agile Audit

## ROADMAP



# Digital Audit



Data



Panels



Indicators



Tests



Tools



AI Solutions





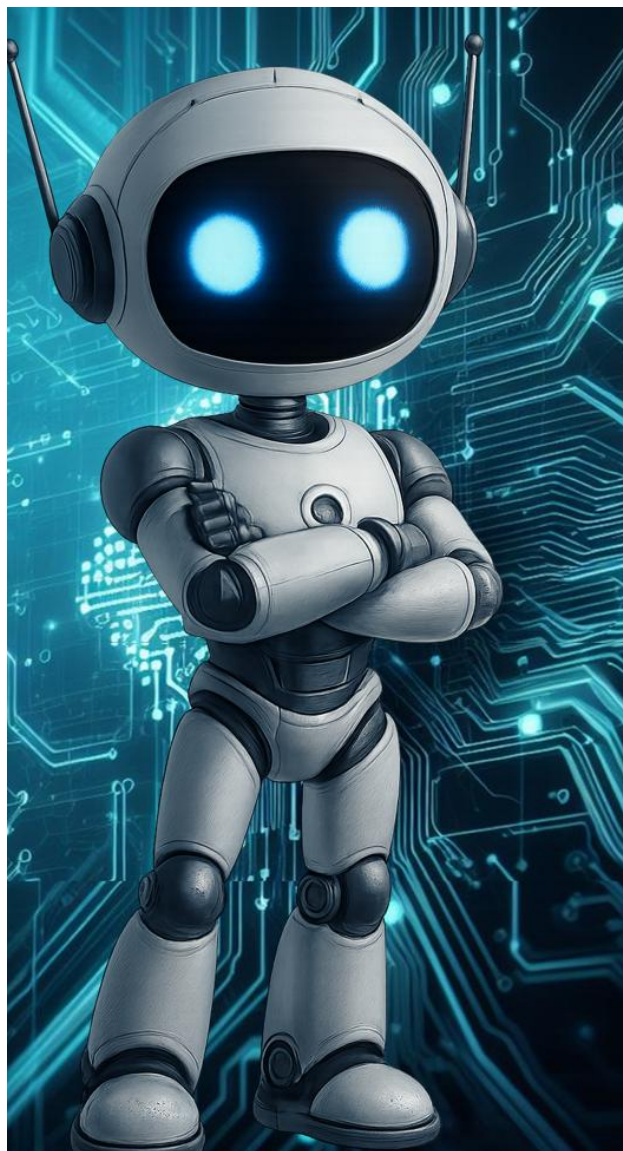
# AUDLABS



- What is it?
  - Petrobras Internal Audit Innovation Laboratory
- Concept
  - Foster a culture of innovation
  - Encourage new ideas and creative approaches.
  - Experimentation
  - Implementation of digital solutions
- Operation in Practice
  - Innovation Office
  - Workshops
  - Pilots
  - Partnerships with other areas
  - Study of new technologies



# AI Solutions – Case1: Raí: The Internal Audit Robot



## AUDLABS Innovation

Intelligent assistant based on GenAI and AI agents.



## Features of Raí

Assistant tailored to the context of Internal Audit

By incorporating intelligent agents, Raí gains autonomy to decide the actions necessary to achieve specific results.



## Multimodal Repositories

Raí connects to 5 different knowledge bases — auditing standards, internal standards, IT and Cyber best practices, Corporate Risk Map.

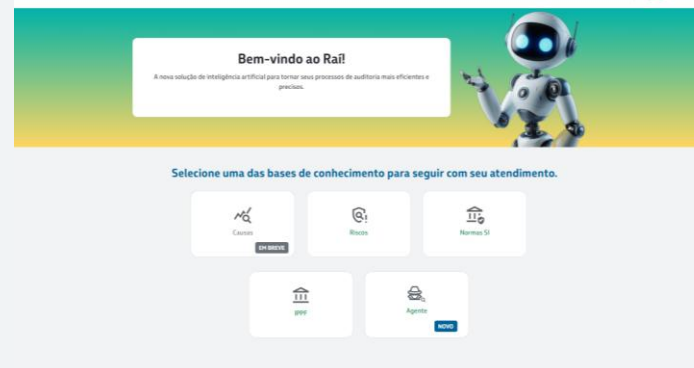
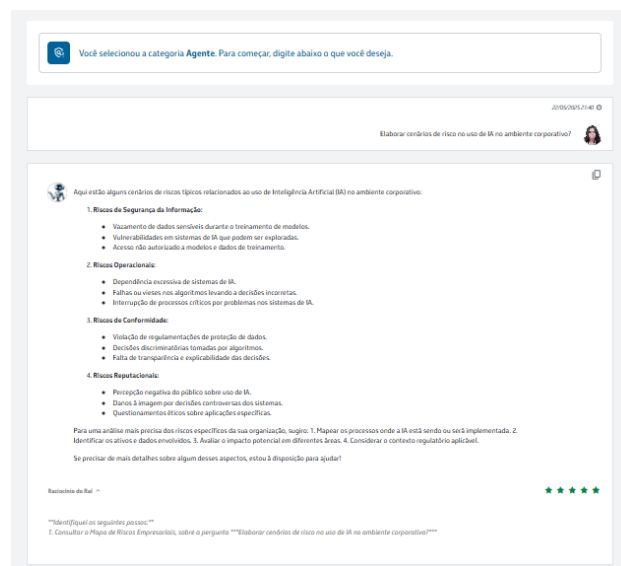


## Redefining the role of auditors

Processes and analyzes large data sets quickly.

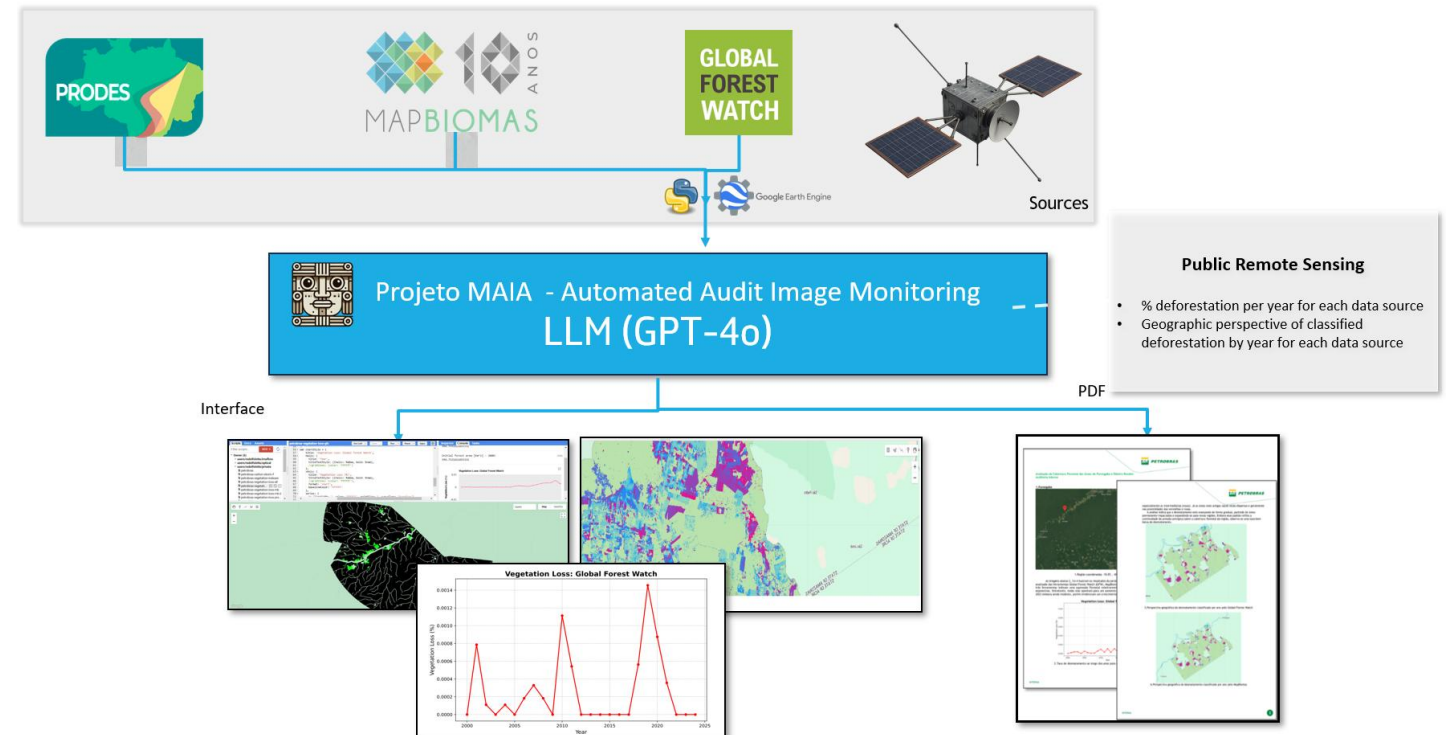
It generates valuable insights.

Creates risk scenarios, identifies vulnerabilities or suggests improvements for process efficiency



# AI Solutions – Case2: Forest Cover Analysis for Carbon Credits

- Use of satellite imagery and AI
  - Advanced technology employment
  - Detailed analysis of forest cover
- Contribution to risk analysis in carbon credits
  - Ensuring data accuracy
  - Reliability in information
- Visual Results
  - Detailed maps
  - Explanatory Charts
- Benefits of the approach
  - Efficiency in analysis
  - Wide range



# AI Solutions – Case3: Brand Monitoring on Urban Roads from Panoramic Images

- Monitoring of the Petrobras brand
  - Identification of gas stations
  - Advertising verification
- Detection of irregularities and opportunities
  - Possible irregularities
  - New opportunities
- Benefits for Contract Auditing
  - Increased audit accuracy
- Improved compliance

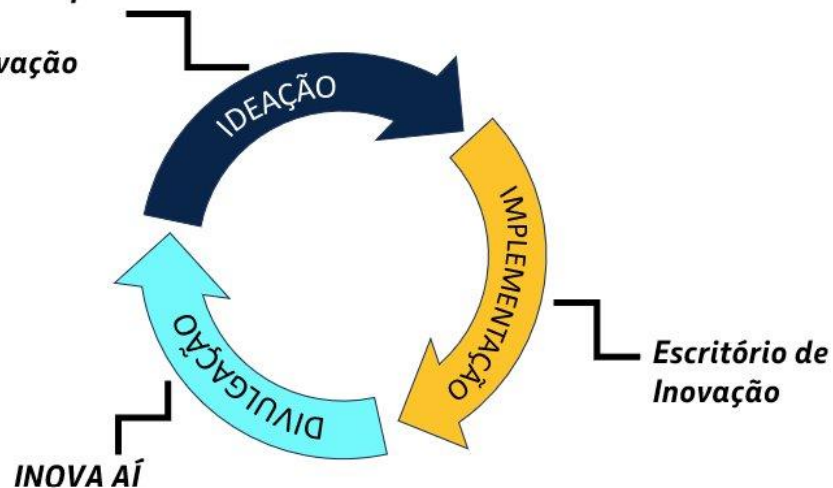




# “Inova AÍ”

*Foster collaboration and a culture of innovation to generate creative solutions and tackle strategic challenges.*

Workshops  
de  
Inovação



02 Workshops  
48 Participants  
+ 45 Ideas  
+ 25 Projects

- Efficiency of Internal Audit processes
- Strategic use of data fostering Data Driven Auditing
- New technologies such as Generative AI
- Analytics solutions with Machine Learning





Thanks!



**Silvia Isabel**  
Digital Audit Manager



**Innovarapel 2025**



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