HUB TECH IA

Use Case of AI and IAGEN Application

Analysis and Rationale on Extraction Sites – Reporting in Vaca Muerta, Neuquén

Deliverable Report Classification 3: "Reporting in Vaca Muerta, Neuquén"

- ◆ **Classification 1: By Main Resource**

  - ● **Selected Option:** 🛢️ Oil (main), ✅ Gas (secondary)
  - ● **Justification:**
    The report is mainly oriented towards activities related to oil exploration and production, explicitly mentioning processes associated with drilling, maintenance, and general hydrocarbon production. It also includes considerations of natural gas as a secondary resource within the same context.

- ◆ **Classification 2: By Activity within Vaca Muerta**

  - ● **Selected Option:** Information Management and Decision-Making
    Justification:
    The core of the report lies in the use of Generative AI to automate and optimize the generation of strategic reports, advanced data analysis, and prediction of events and trends. This facilitates better strategic and operational decision-making through accurate, complete, and timely information. The value of automating routine and customized reports is particularly emphasized as a way to streamline and improve decision-making quality.

- ◆ **Classification 3: Type of AI Technology Used**
Main Selected Option: 1️⃣ Generative AI Models

- **Justification:**
  The report specifically highlights the implementation and advantages of Generative AI in tasks such as automatic content generation, personalized report writing, creation of predictive scenarios through advanced algorithms, and generation of synthetic data. It explicitly mentions the use of technologies such as ChatGPT and DALL·E (both clear examples of generative models) to produce text and images, respectively. Additionally, advanced algorithms are used for predictive maintenance and seismic data analysis.

- ◆ **Classification 4: By Strategic Industry Impact**

  - **Selected Option:** Strategic Decision-Making and Data Analysis
  - **Justification:**
    The main strategic impact identified lies in improving the quality, accuracy, and speed of report generation, enabling faster and more strategic decision-making based on deep data and advanced analysis. Emphasis is placed on the ability to anticipate events, prevent failures, and optimize production through the generation of real-time actionable reports, positively influencing both business and operational decisions.