HUB TECH IA

AI and IAGEN Application Use Case

Construction and installation - Safety - Development of protocols and work guides

Classification of report deliverable 16: "IAGEN applicable to construction and Installation - Safety - Development of protocols and work guides in Vaca Dead":

Classification 1: By Main Resource

• Selected option: Oil and ÿ Gas (main).

• Justification:

   The report focuses specifically on construction activities and
   installation of critical infrastructure for oil and gas operations
   in Vaca Muerta, explicitly highlighting the importance of security in
   tasks directly linked to the production and transportation of
   hydrocarbons.

Classification 2: By Activity within Vaca Muerta

• Selected option: Automation and Standardization of Protocols

• Justification:

   The core of the report is the automated and dynamic creation of protocols,
   safety guides, and specific training using Generative AI. The goal is to standardize critical
   operating procedures, improve the
   accident prevention, and increasing operational efficiency and safety
   through intelligent automation of guides and protocols.

Classification 3: Type of AI Technology Used

• Main selected option:

   1ÿÿGenerative AI Models,

   3ÿÿNatural Language Processing (NLP) Systems,

   4ÿÿComputer Vision and Image Analysis Systems.

• Justification:

   The report specifically details the advanced use of models
   generative tools like GPT-4 Turbo, Claude 3 and Gemini to create documents,
   operational protocols, and personalized training. It also mentions visual
   generation tools (DALL-E, Midjourney, Stable Diffusion) to
   drills and training, integrating artificial vision for inspections of
   security through drones, which significantly reinforces the precision and
   training effectiveness and safety.

Classification 4: By Strategic Impact on the Industry

• Selected option: AI for Industrial Risk and Safety Management
• Justification:

   The report clearly emphasizes the strategic use of IAGEN to
   reduce work accidents by at least 50%, significantly improve
   staff safety, prevent risks through early detection and
   Improve emergency responses through smart protocols and
   advanced virtual simulations. This strategic approach is
   directly focused on proactive risk and safety management in the oil and gas
   industry in Vaca Muerta.