



**Shell** .ai Futures Pitch 2024

## Overview

The Changemakers of Tomorrow, organised by Shell at the KTPO, Whitefield, Bangalore, India is a one-day event that unites innovators, entrepreneurs, and industry leaders. Aligned with Shell's strategic vision, this immersive experience aims to foster collaboration, inspire innovation, and drive progress in the energy sector. Through workshops, seminars, and presentations, participants will get an opportunity to exchange ideas, showcase their knowledge, and build lasting relationships. The event embodies Shell's commitment to shaping the future of energy through collaboration, innovation, and celebrating remarkable achievements.

The Shell.ai Futures Pitch 2024 competition aims to bring the start-up ecosystem and Shell together to accelerate and explore opportunities to learn and work jointly on some of the world's toughest energy challenges.

During the Shell.ai start-up pitching competition, start-ups will pitch their solutions to one of the challenges described in the problem statements below. The winning start-up will be awarded a prize of \$5000 and may be awarded a collaboration opportunity with Shell.

## Objective

Your task is to demonstrate how well-positioned your start-up is to address this challenge. Following the initial submissions, a virtual jury will shortlist the best start-ups will pitch their start-up live at the Changemakers of Tomorrow at the KTPO, Whitefield, Bangalore, India, Monday September 09.

## Problem Statements:

1. Site procedures management for Oil and Gas industry.
2. Virtual Assistant for Field Development Planning in Oil and Gas industry.

## Problem Statement 1

### Site procedures management for Oil and Gas industry

#### Background

Good management and version control of site procedures is critical to improve the quality and ensure the integrity of standard operating procedures. This

requires a proper feedback loop from execution to procedure writers to improve content. Procedures are an important part of safe working practices, enabling business in improving HSSE and Operational Excellence. Errors in procedure execution are a significant source of unscheduled downtime and can impact process safety.



#### Scope

- AI-based ingestion of legacy formats and AI-generated procedures from historic content.
- Instant access to execution data and linkage to digital twin.
- Mobile-compatible with offline capabilities.
- Auditable, self-defined steps and roles with reusable standard steps with decision tree capability.
- Handles complex procedure writing and supports bulk upload (Word, Excel, PDF), links, attachments, and data entry.
- Version management and record disposal and digital signoff with timestamp.
- User access management based on personas.
- Scalable and adaptable.

#### Digital Capabilities

- SaaS application, Mobile application with offline capabilities, compatible with handheld and desktop users.

## Problem Statement 2

### Virtual Assistant for Field Development Planning in Oil and Gas industry

#### Background

Subsurface benchmarking involves comparing an opportunity to existing fields with similar characteristics. By leveraging analogues, valuable insights can be gained to optimize development concepts, including well designs, scheduling etc. However, these insights are often buried in extensive, non-standardized reports and other mostly unstructured data sources. Quantifying and managing subsurface risk require better utilization of this hidden information.



#### Scope

- An interactive platform to aid Subsurface and Wells (SSW) professionals in making informed decisions regarding development options, engineering concepts, economic evaluations, subject to known properties of a development opportunity.
- A virtual expert helping users access and aggregate proprietary knowledge, troubleshoot issues and gain insights from large multi-modal, structured and unstructured datasets.
- Better equip SSW professionals to identify and navigate the challenges and uncertainties inherent in this domain, such as complex geology, heterogeneous reservoirs, limited data, high costs, and environmental impacts, to support data-driven decision-making in field development planning.

#### Digital Capabilities

- Data science, machine learning, analytics, Optical Character Recognition (OCR), Natural Language Processing (NLP), and (Generative) AI capabilities.
- Combining first principle and data drive models to perform predictive analytics in addition to descriptive analysis of provided data sets.
- Image Query Assistant: Explain / extract information from uploaded graphs, diagrams and tables & perform basic data analysis.

- Allow user to control the priority of documents to be used by LLM (e.g., based on document date, type, reputation of source, etc.).
- Advanced Numerical Analysis Capabilities via graphical and textual interface.
- Hyper-automated data preparation.
- Knowledge graphs, integration capabilities via standard APIs, Graphical User Interface, Support for Confidential Data.
- Flexible software stack that allows replacing individual components as the market quickly generates better performing/innovative building blocks.

### **Out of Scope**

- Use of restricted-access data and information that cannot be independently verified.
- Use of obsolete or niche technologies that cannot be sustained.
- The AI solution will not make autonomous decisions or execute actions without human oversight.

### **Data Required**

- Ingest a large set of technical documents such as Field Development Plans (FDP), Concept Select Reports (CSR), Reserves Change Control Note (RCCN), and Subject Matter Reports (SMR) together with supplementing structured data.

## Eligibility

- The competition is open to all registered start-ups (minimum 2 staff members).
- Startups can be in different TRL levels -
  - TRL 2 - 5 or have received only pre-seed or seed funding; or
  - 6-9 stage with early revenues, market validation by pilot(s), series A funding (or higher).

## Timeline

Milestone	Date
Competition opens for submissions	05 <sup>th</sup> Aug
Submissions deadline	18 <sup>th</sup> Aug
Finalist startups announced	31 <sup>st</sup> Aug
Winner announcement	09 <sup>th</sup> Sept

## Rewards

The cash prizes that will be awarded are:

- USD 5000 for the first prize winner.
- USD 3000 for the second prize winner.

And winners may be awarded a collaboration opportunity with Shell.