

WOODSIDE ENERGY CASE STUDY

IMConnect Operational Pilot Project
Karratha Gas Plant, Western Australia



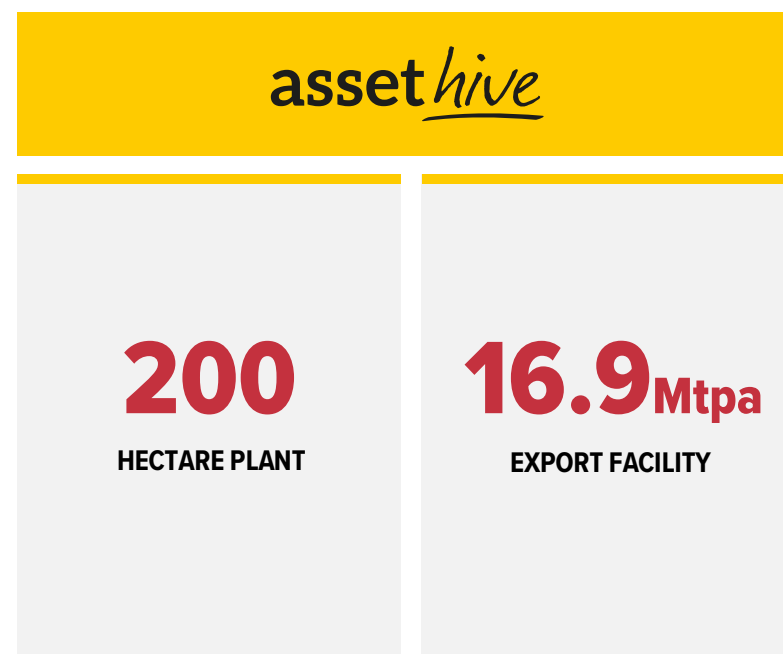
SILVERHORSE
TECHNOLOGIES

asset *hive*

Karratha Gas Plant

The Karratha Gas Plant, which forms part of the NWS project, is one of the most advanced, integrated gas production systems in the world, producing LNG, domestic gas and LPG. The facility is located 1260 kilometres north of Perth, Western Australia and covers about 200 hectares. Karratha has an export facility of 16.9 Mtpa, with five LNG processing trains; two domestic trains; six condensate stabilisation units and three LPG fractionation units.

IMConnect Operational Pilot	
Problem	Corrosion Inspection
Objective	Operational Discipline
Solution	Smart Collaboration
Plant	200 Hectares
Zone	Fractionation Pipe Rack
Coverage	5% of Plant
Duration	3 months
Date	June 18



True collaboration

Silverhorse has entered into a long-term contract with Woodside, building on the results of an operational pilot that aimed to enhance Woodside's new way of working.

In this pilot of risk-based inspection software the two teams collaborated to develop a new technology called IMConnect.

IMConnect enabled the Karratha refurbishment team and implementation contractors led by Applus RTD to access risk-based business and engineering processes both in the office and in the field.

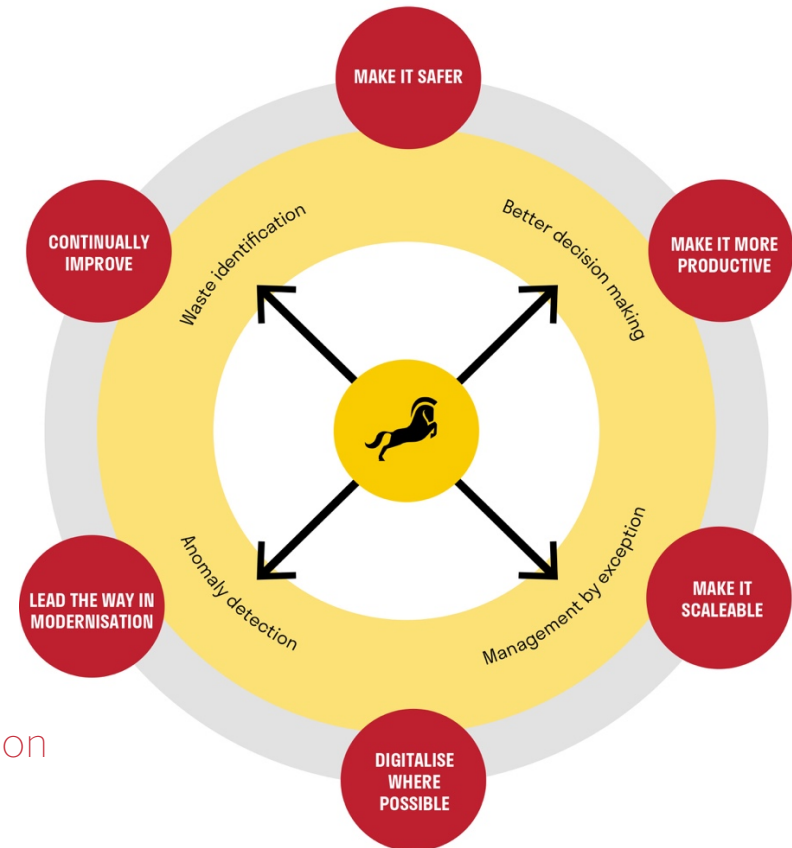
The process management element of Woodside's IMConnect stack is provided by AssetHive, Silverhorse's cloud-based system, which connects to Silverhorse's mobile application,

Inspection Connect. Inspection Manager uses Autodesk's Navisworks platform for visualisation, planning and preparation of scopes of work, as well as for consolidation into work packs.

By bringing together all existing data sources on the asset, AssetHive provides the single source of truth, which is made available to everyone through an open application program interface (API). This allows all of the latest information to be accessed from anywhere, at any time, at the touch of a screen. By facilitating collaboration, AssetHive enables people to find

new ways of solving problems, that increases productivity.

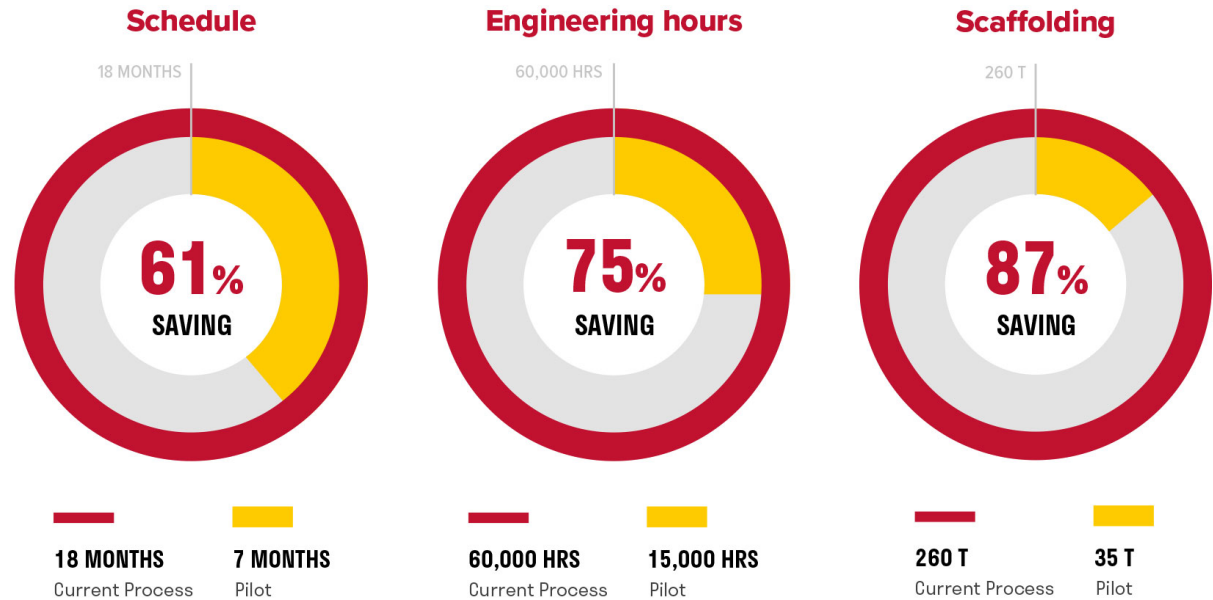
This partnership is a great example of how harnessing data to provide insights and drive collaboration within organisations can deliver enhanced efficiency. It is a process that enables continual improvement over time.



Harnessing data provides insights and drives collaboration that together deliver unparalleled efficiency



Operational pilot - headline results



The outcome is improved operational discipline thanks to better planning, and smarter decision making, plus enhanced anomaly detection, waste identification, and real-time reporting that reduces cost.

Reducing complexity and support, increasing scope

The IMConnect operational pilot introduced an automated inspection and repair process.

Inspection and repair teams were combined into one collaborative unit and equipped with tablets that enabled them to interface with Woodside's central data lake on a 3-D visual model.

The team's task was to perform in-field refurbishment and execution decisions. The objective was to complete the entire scope of work with minimal back-office support.

By empowering people across the project, Silverhorse assisted Woodside to enable more to be done in a safer way, with less.

