

# DEVELOPMENT OF PERFORMANCE STANDARDS

**PERFORMANCE STANDARD OF SAFETY CRITICAL ELEMENTS** ●

Deck expansion is required for servicing the crane tip to ensure safe operation of the platform

**DESIGN CONSTRAINT** ●

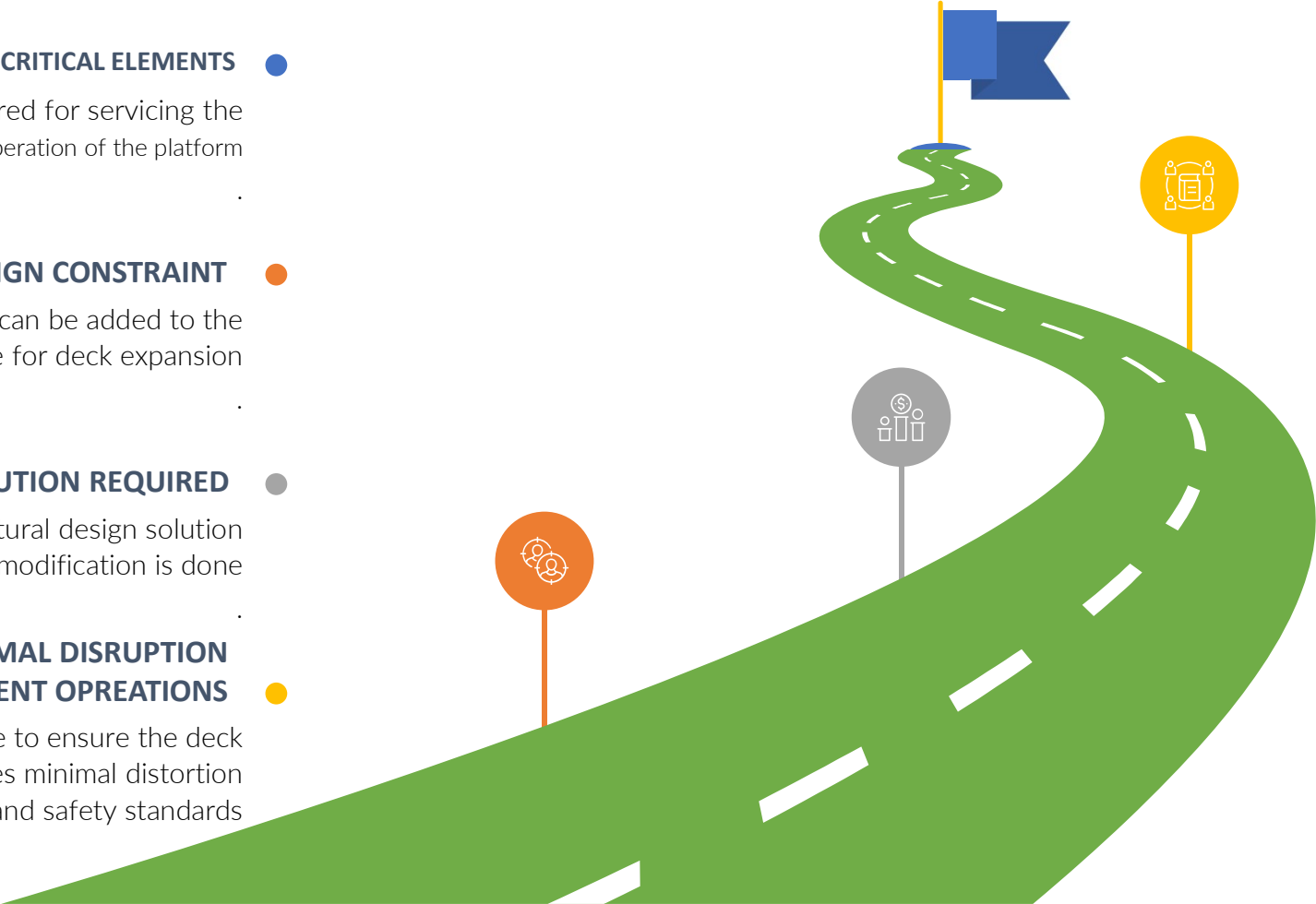
Green No extra weight can be added to the current structure for deck expansion

**INNOVATIVE SOLUTION REQUIRED** ●

Innovative engineering structural design solution to ensure no modification is done

**COST EFFECTIVE & MINIMAL DISRUPTION TO CURRENT OPREATIONS** ●

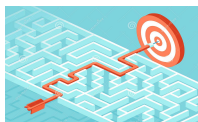
Design solution must be cost effective to ensure the deck expansion is cost effective and causes minimal distortion to the current operations and safety standards





## Challenges Faced by Shell

- New safety case study was released for Tapti and Panna, but what were the Safety Critical Elements (SCE)?
- Maintenance schedule of SCE was not present.
- No performance standard and preventive maintenance plan was present for SCE from the newly released Safety Case Study.
- Decreasing plant safety, hampering production.



## Solution Approach by Petrodia

- Reviewing Safety case for Major Accident Hazard (MAH), Hazard analysis to identify safety critical elements.
- Developing new Performance Standard (PS) with measurable survivability criteria.
- Creation of maintenance strategy, maintenance job sheets for preventive maintenance schedules with standardised criteria and regulation for both the assets Tapti and Panna.
- Developing quality assurance (QA) for implementation of Performance Standard and maintenance schedules.



## Results Delivered by Petrodia

- Higher rate of production as unplanned failure rate of equipment have drastically reduced.
- Quality Assurance to ensure standardised implementation of PS and Preventive maintenance of SCEs.
- Checklists to avoid any errors whilst carrying out maintenance of SCEs
- Increasing operational integrity of the plant and thereby increasing the safety standard of the plant.
- Cost reduction, as planned maintenance schedule enables efficient inventory management.
- Increased production as shutdowns can be planned and controlled.

