

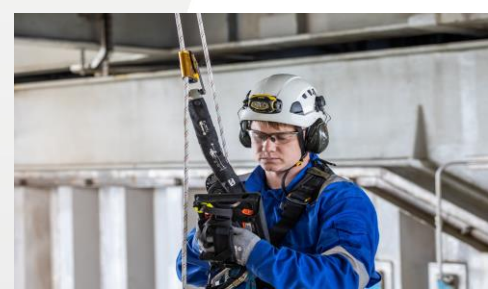
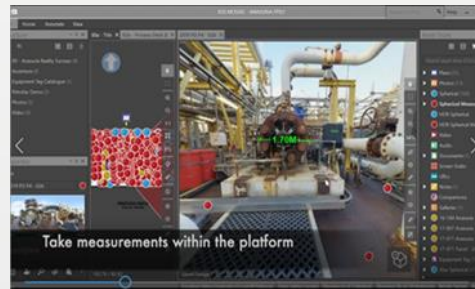
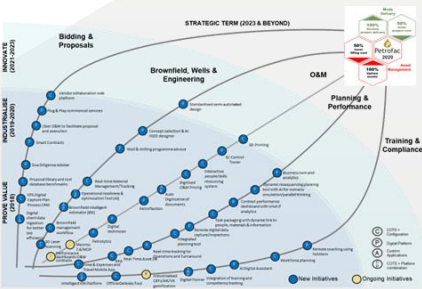
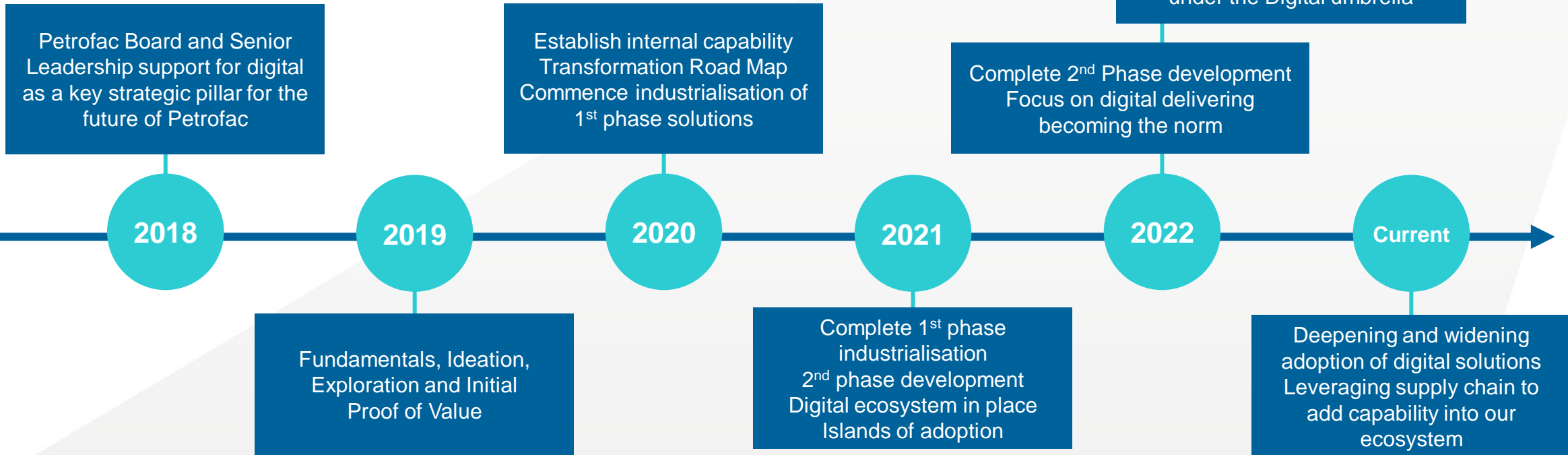
# LEVERAGING OUR IN-HOUSE TALENT AND EXISTING SYSTEMS

**Helen Riach**  
Lead Digital Analyst, Petrofac

7 November 2023

# Our digital journey

Enabling Petrofac to deliver high quality, high value outcomes for our clients through the appropriate adoption of the right digital solutions and the transformation of how services are delivered.



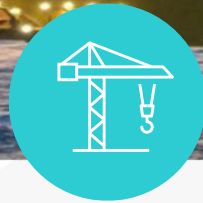
# How can digital benefit the energy transition?



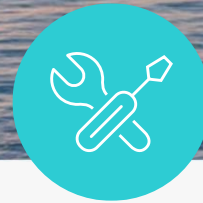
DESIGN



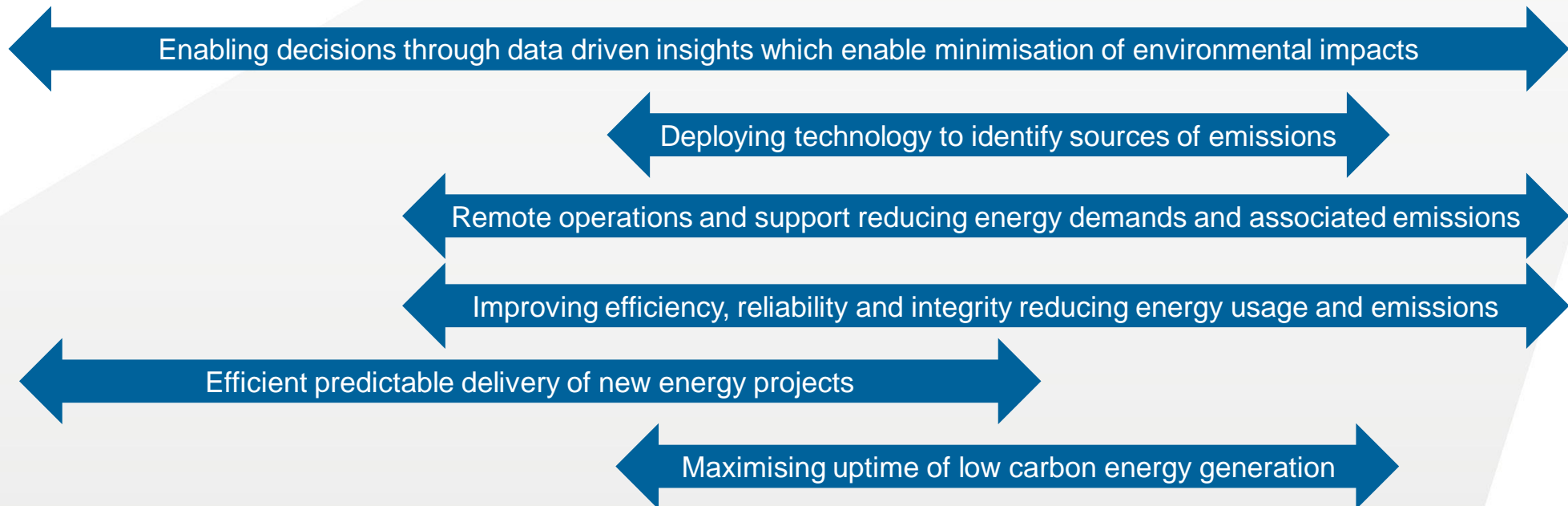
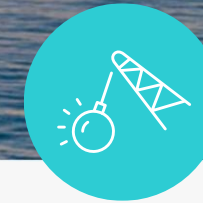
BUILD



OPERATE



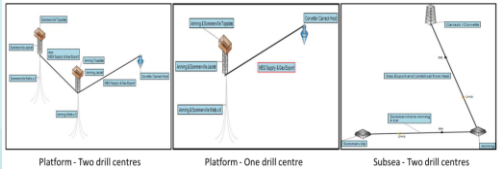
DECOMMISSION



# Digital enabling the energy transition

Enabling decisions through data driven insights which enable minimisation of environmental impacts

Lifecycle emissions forecasting across the design stages providing insights on the environmental impact



Leveraging data (industry, supplier, project, operations) through data platform, data science and analytics

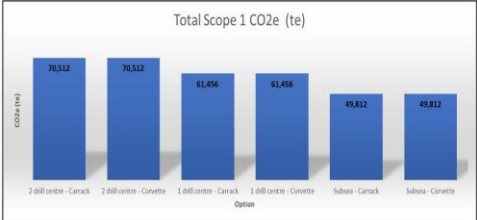
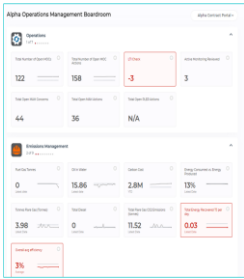
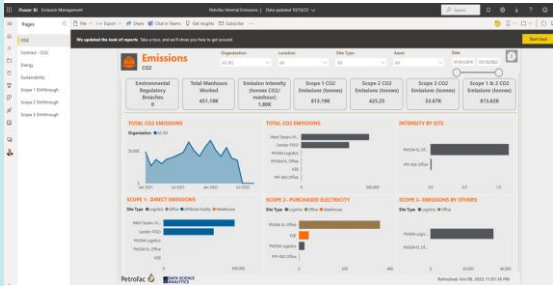


Figure 4-1: Scope 1 CO2e emissions across all options



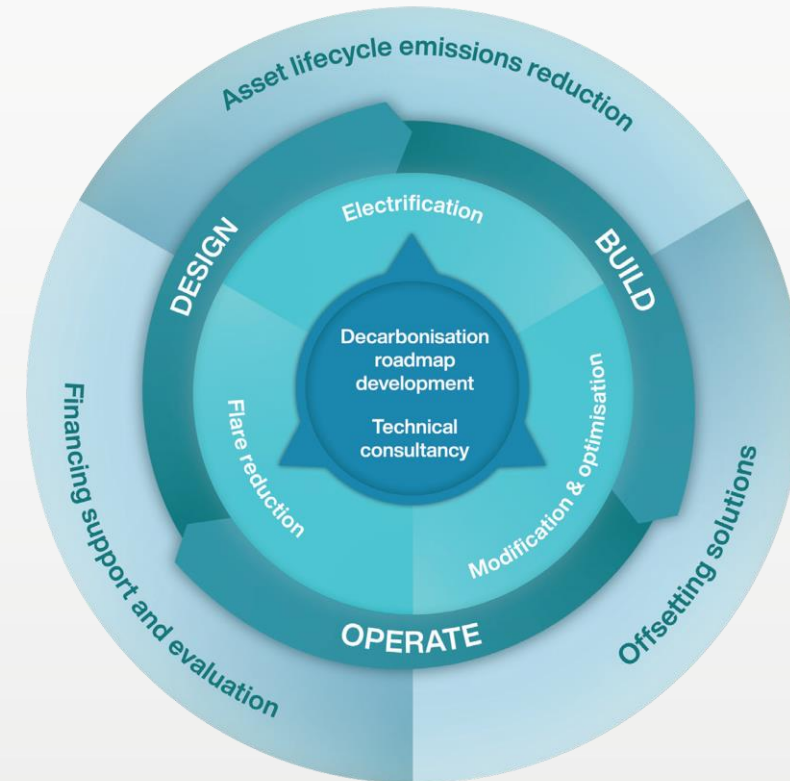
Visualising energy usage and emissions data, cross correlation with operational metrics supporting optimisation



# Emissions and energy management

Developed by Petrofac the **Emissions and Energy Management tool** provides a capability which enables emissions management across the asset lifecycle, reporting on Scope 1,2 and 3 emissions.

- **For Greenfield developments:**
  - **Accurate predictions of carbon footprint** of a planned development
  - Calculated over its **entire operating lifecycle**
  - Generates **costed engineering solutions** for quantified performance enhancements
- **For Brownfield assets:**
  - **Real-time emissions monitoring** capability
  - Data extracted at **component level**
  - **In-depth understanding** of asset's performance and how it could be enhanced, either through amendment to operating procedures or equipment modification



# The problem statement

During the design phase we want to:

- **Run various scenarios with different design criteria (steel, concrete, fuel usage, imported electrical power, flaring etc)**
- **Compare the relative emissions forecasts to take these into account alongside cost, schedule etc. when making our design decisions.**



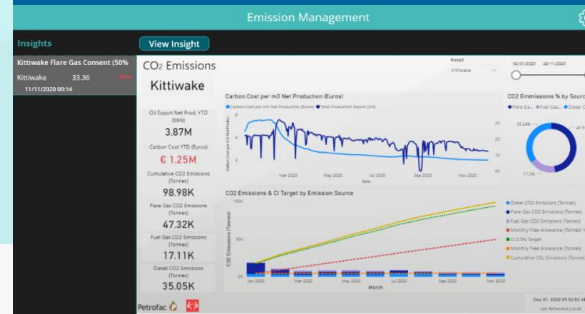
# The solution selection process

Requirements gathering, basis of design and solution selection process

Off the shelf application, readily available on the market



Apply one or more of our portfolio of existing digital capabilities

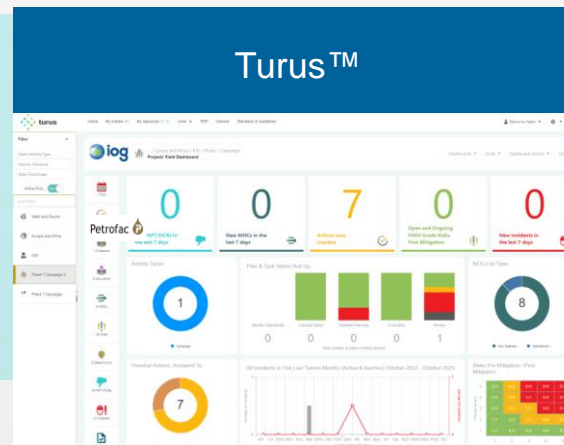


Build a new digital solution



Proof of Concept

Turus™



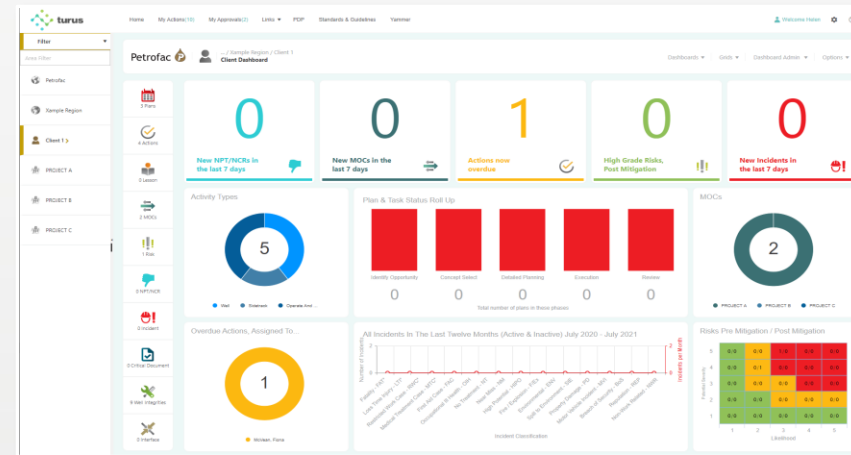
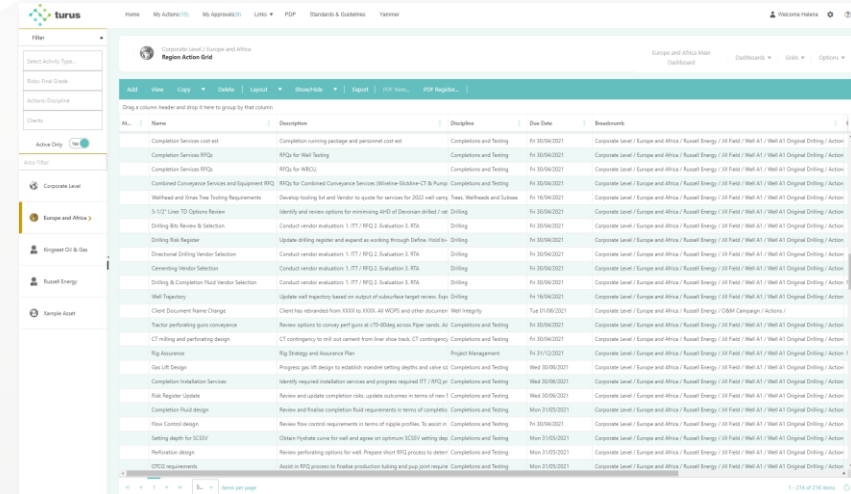
# Turus™ – what can it do for me?



Turus™ simplifies the project management journey by bringing a new level of standardisation, control, visibility, transparency and assurance to projects.

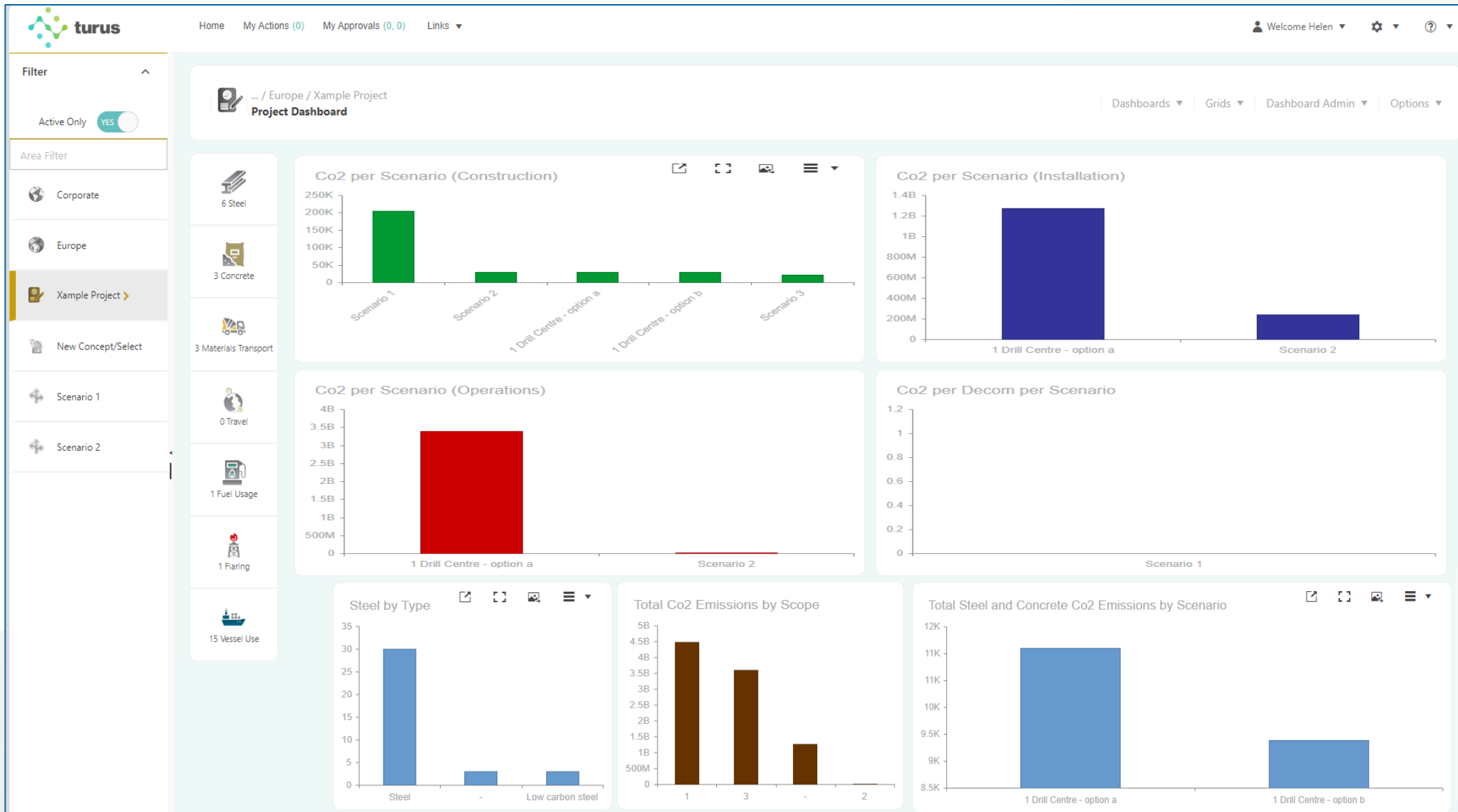


- Risk and opportunity management
- Assign actions to risks, opportunities and other items
- Light touch to full suite
- Permission-controlled external access
- Supports the 'one-team' ethos
- Facilitates project oversight
- Simple project interface
- Internal dashboards bring data to life
- Data in Petrofac's data lake for internal reporting
- Manage your end-to-end delivery process
- Repeatable, standardised methodology
- **Designed to be used by any business type in any industry sector - completely configurable**

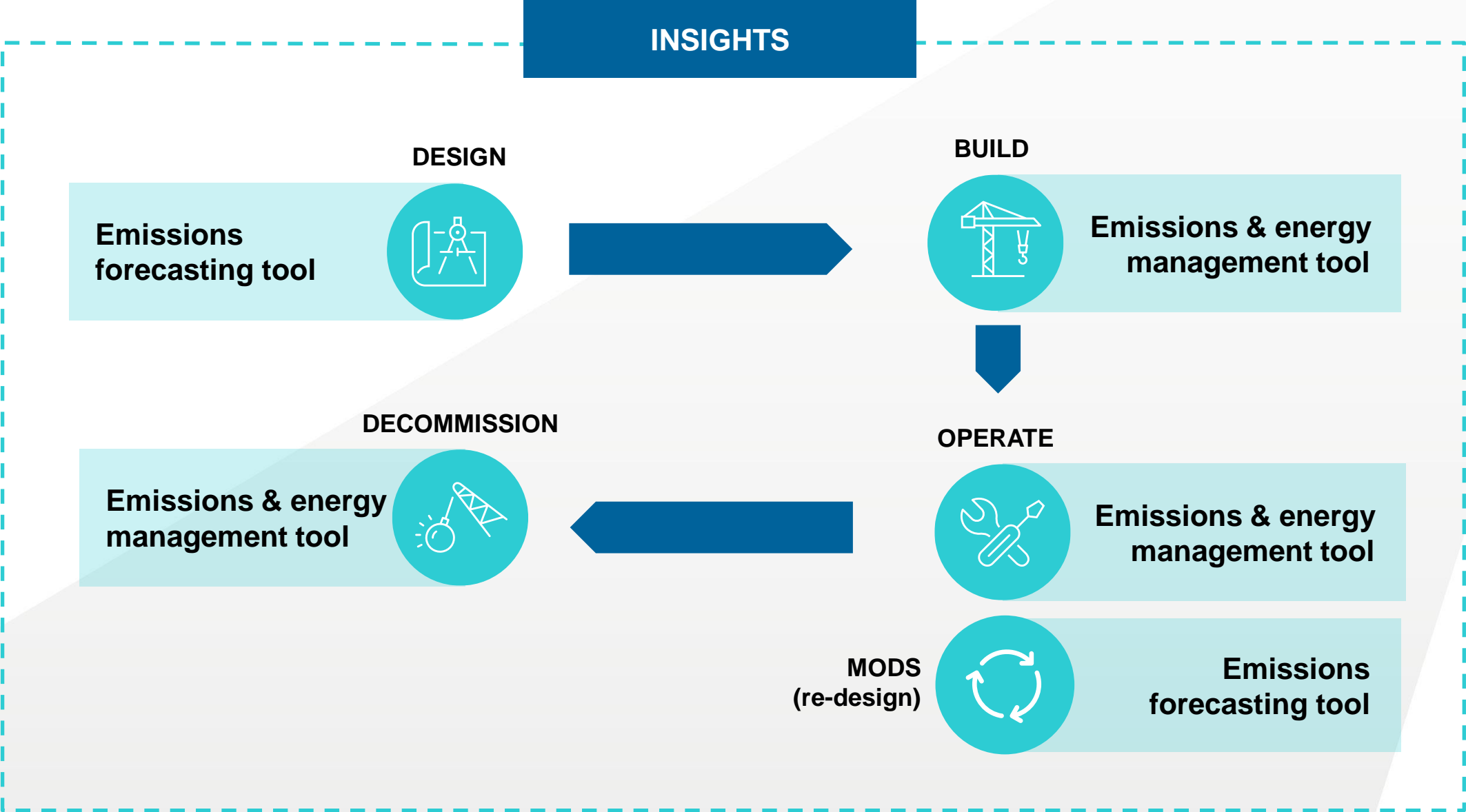




# Emissions forecasting tool



# Emissions & energy management digital suite



## The answer sometimes lies in unexpected places!

- **Involve all your stakeholders when reviewing digital options - make sure everyone has the opportunity to input**
- **Software developers are stakeholders too**
- **Harness your internal talent**
- **Aim to minimise the number of applications in your armoury – rule out before adding in**
- **Look at your internal applications and solutions (potentially with a twist) before going external**

# Thank you

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Petrofac 