To extend or end asset life — which is best?

For many UK companies, cutting costs and bringing sustainable practices into operations are key targets. Offshore operators are faced with the decision of extending or concluding production asset life — and pre-decommissioning planning has emerged as a key challenge for the industry. Mitigating uncertainty, enabling decision making and justification as to whether to end or extend asset life, as well as detailed knowledge of asset conditions is crucial.

Tracerco, experts in subsea technologies, provide us with their advice:

Choosing to extend the asset life

Always think about whether extending asset life is the best thing to do. If you believe this is the case, the assessment of asset structures to retrieve data on the asset's condition is vital to determining whether extending the asset life and production is safe. In cases of initial assessment, technologies that can confirm structural integrity with regard to pipeline corrosion and erosion, flexible riser liner and carcass inspection, midwater arch/buoyancy tank inspection, platform member inspection and grout monitoring is essential. These technologies are also vital during extended life campaigns, as regular inspection is required to confirm the viability of the asset.

To make sure that you're choosing the right decision, you must assess and determine the ongoing production process. Information given via detection, diagnostic and measurement technologies can guarantee maintainable, relatively inexpensive production. Reservoir recovery is circa 30% to 40%, and with IOR/EOR technologies as an industry, we have experienced a significant increase in these percentages. In IOR/EOR applications, chemical tracer technology can be used to manage fluid movement and maximise hydrocarbon output by establishing water entry points, providing a water cut profile along the wellbore and confirming the water source from the formation or injection water movement when combined with waterflood tracing.

When it comes to field development planning, there are certain technologies that can help distinguish high-flow permeable channel blocking to approve the efficiency of chemical treatment. In addition, operators can also measure waterflood effectiveness, residual oil saturation, water and oil inflow — which can often be used as an alternative to PLTs (sometimes deemed too risky or costly), as well as effective water injection and mud invasion.

Choosing to end asset life

It can be the best decision to end asset life in some cases. But how do you decommission safely and effectively? The important factor here is to ensure that the route taken mitigates risk and is carried out safely, considering the best interests of the environment as well as complying with local regulations and legislation.

You must be aware of asset conditions if you decide to take this route. This is because it will help to make an informed decision on dismantle and disposal plans. Knowing about platform member integrity and flowline contents allows operators to assess the weight of structures (as well as ensure they are free from deposits/blockages) before any lifting, ensuring safe dismantling. Some companies also offer expertise and equipment for NORM and LSA scale management, detection, and disposal — guaranteeing that decommissioning is as safe as possible. These services are also valuable in radioactive source recycling, further enhancing the safety and sustainability of operators' decommissioning programmes.