mPACT2WO
a molex Business

SeaChange – A Pragmatic Approach to Digital-Industrial Transformation

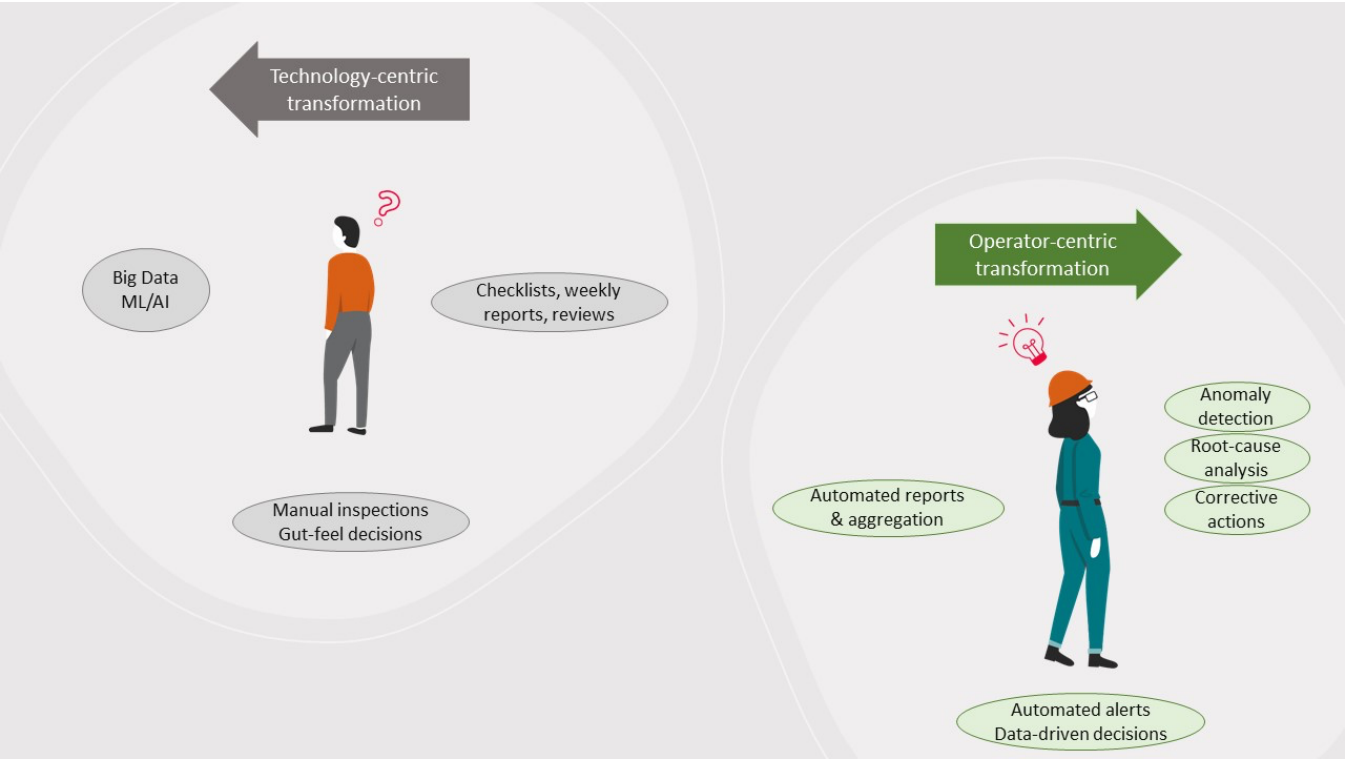
The industrial to digital-industrial transformation has delivered mixed results. While technological advances and limited implementations showed promise, active operator adoption and measurable operations efficiency have been spotty, with unpredictable hits and misses. These mixed results can be attributed to suboptimal approaches across three connected factors:

I. IIoT solutions – IIoT1.0 solutions with too much technology and too little operator adoption
II. Transformation methods – Misplaced assumptions on existing inefficiencies, operator adoption and expected operations efficiencies
III. Management support – Lack of recognition based on digital methods and lack of clarity on transformative value

mPACT2WO, a Molex business, collaborated with visionary industrial customers to develop **SeaChange**, a pragmatic approach to digital-industrial transformation. SeaChange combines mPACT2WO expertise in IIoT solutions (sensors, software and transformation) and the customer expertise in plant operations for a structured practice of trust-and-adopt implementation.

SeaChange shifts the focus from *technology-centric* transformation to *operator-centric* transformation. Operator-centric transformation is guided by two foundations:

a. Operator adoption – Extent to which operators' daily decisions are enabled by the transformation
b. Operations efficiency – Quantitative or qualitative benefits



SeaChange refines the suboptimal approaches of the above-listed three factors for a holistic impact. The following sections expand, with specifics of emissions monitoring and reduction.

I. IIoT solutions – Shift to IIoT2.0 solutions with minimum viable technology for maximum operator adoption
    a. For example, the refinery operator gets a real-time alert on a leak or potential leak source location. The solution enables detection response to discuss findings and to decide on corrective action. Adherence to such operator-familiar steps makes the shift from manual to automated methods seamless.

II. Transformation methods
    a. Prioritize and scope existing inefficiencies to balance quick-hit and big-hit problems (important to expand the scope of inefficiencies to quantitative and qualitative aspects)
    b. Assess transformation hurdles for each problem. Examples could include operations priorities, turnaround constraints, consent decree concerns and respective economics (operations interruptions vs maintenance costs tradeoffs)
    c. Set realistic expectations on operator resistance to change, time to active operator adoption, and time to update operational methods

III. Management support
    a. Update operator evaluations to recognize new operator efficiencies
    b. Align quantified new efficiencies with operational budget items

SeaChange has enabled customers to accelerate operator adoption, which quickly leads to operations efficiency. The problem scope is selected to accelerate operator trust and to ease operator adoption. Customers have achieved anytime-anywhere visibility and step-change efficiencies in emissions reduction within the plant and at fenceline, as well as enhanced maintenance procedures and process safety. The SeaChange practice can also be used for enhanced digital operations transformation of fixed and rotating assets.

mPACT2WO SeaChange practice shifts the focus from technology-centric transformation to operator-centric transformation. Without this shift, digital-industrial transformation will continue to struggle with an unpredictable mix of hits and misses.

SeaChange is a structured practice and is offered as part of mPACT2WO solutions from a simple advisory to full implementation service.