

## Intelligent digital operations case studies

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Intelligent digital operations that combine deep process knowledge with plant data are increasingly being applied in different sectors within the process industries.

In petrochemicals, ethylene plants are now benefiting from real-time ethylene yield soft-sensors that allow conversion control, coupled with coke monitoring and furnace optimisation technology. Refining and chemicals plant sites are benefiting from site utilities optimisers that execute within seconds to provide operators with multi-option decision support information for minimising energy cost and CO<sub>2</sub> footprint. Oil & gas operating companies are implementing multi-site optimisation covering of large-scale gas operations, that generate daily additional revenue increments and also enable optimal response to abnormal situations. Online reactor decision support systems help operators monitor reactor KPIs that have never before been available.

This presentation describes some practical applications of recent digital operations applications from large-scale upstream and downstream operations.