

UKCS Production Efficiency

As expected, Production Efficiency (PE) in the United Kingdom Continental Shelf (UKCS) faced a challenging year in 2021, decreasing by 7 percentage points from the previous year to 73%. While a significant drop, this was not as severe as had been forecast. A major influence was the combined effects of dealing with operations in the pandemic and the postponement of a number of maintenance shutdowns from the previous year including the Forties Pipeline Systems (FPS). Consequently, production losses increased by 25% to a total of 176 million barrels of oil equivalent (mmboe).

Actual Well Production (AWP) fell across all regions, from a total of 612 to 509 mmboe, a 17% drop from 2020. Concurrently, Economic Maximum Production Potential (EMPP) fell by 9% to 698 mmboe, resulting in a 25% loss of production potential in 2021.

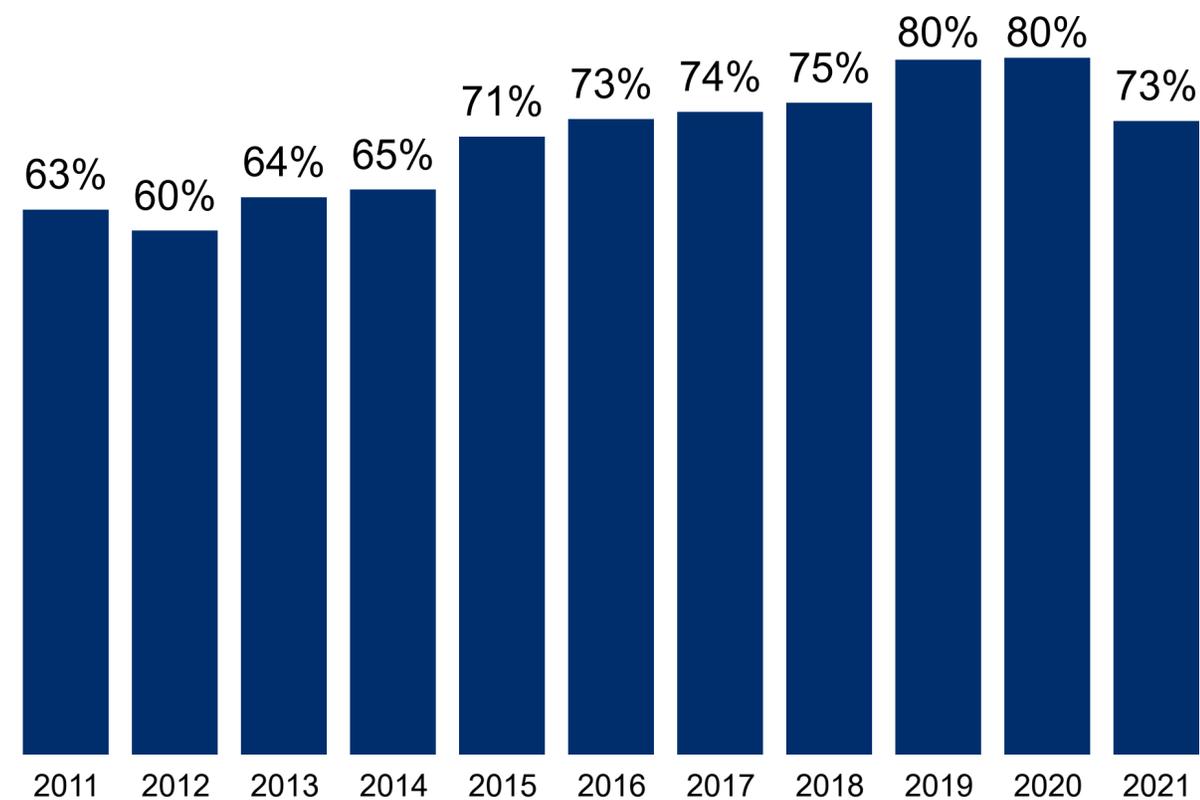
Only 31% of hubs in the UKCS achieved the 80% PE target. Small-manned platforms were the most affected by shutdowns and export losses in 2021.

The FPS maintenance was reflected by an increase in shutdowns days, a 45% increase from the previous 3-year average. Forward planned, shutdown days indicate a return to average levels and as constraints from the pandemic fade.

The NSTA and operators are working together to ensure a swift recovery in PE for 2022.



UKCS Production Efficiency



This interactive report shows the performance and trends of production efficiency and production losses for the UKCS across regions and by infrastructure type. For detailed information on hub and operator level performance, operators can request their bespoke production efficiency benchmarking pack from the NSTA via ppr.team@nstaauthority.co.uk.

For information on the methodology used in this report, visit our [UKCS Production Efficiency guidance](#) page.

UKCS Production Efficiency - Overview

Production Efficiency
73%



-7%
Point Difference
-44
PE AWP Change (mmboe)



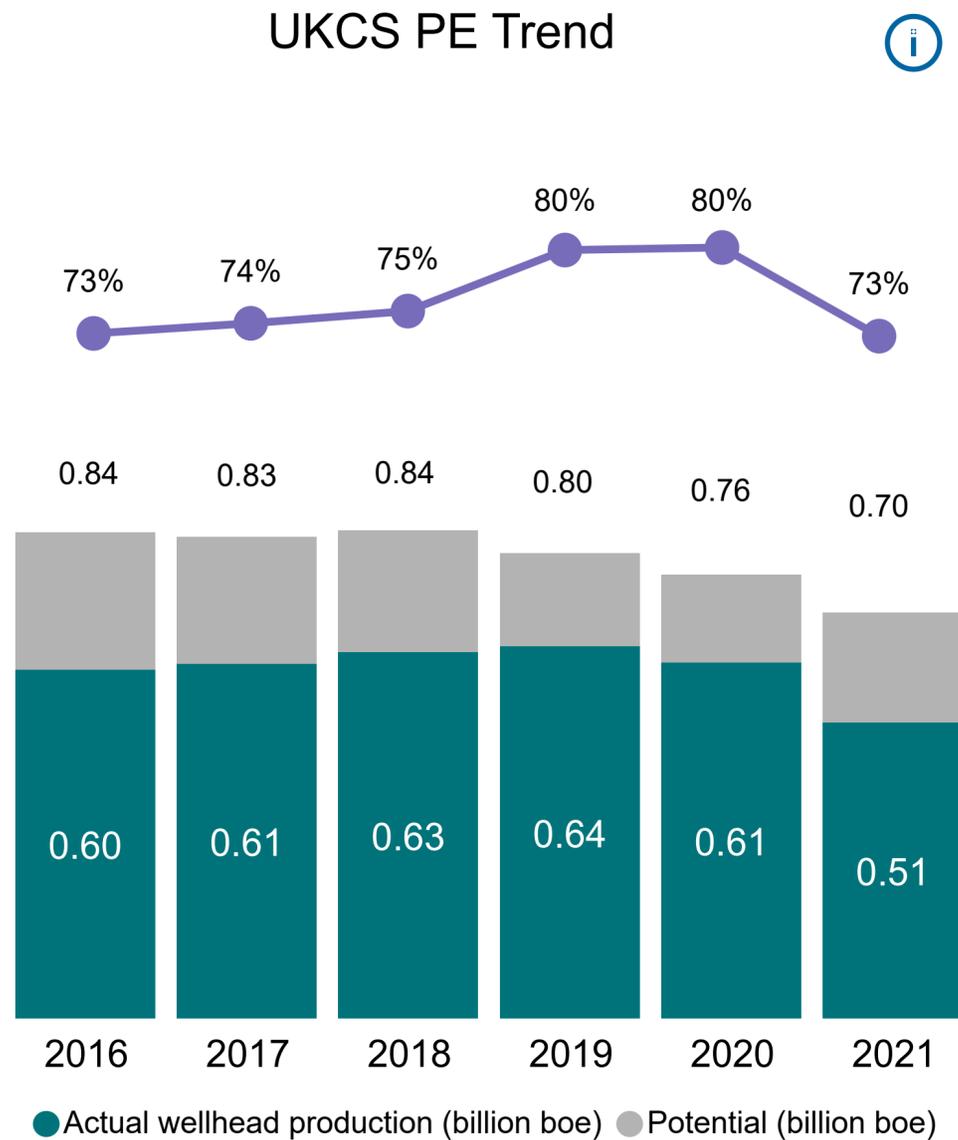
25%
Percentage Change
36
Point Difference (mmboe)

2021 PE is at 72.95%, the lowest since 2016 and a considerable drop of 7.25 percentage points from last year. This adds to an equivalent of 44.33 mmboe reduction as a result of lower efficiency.

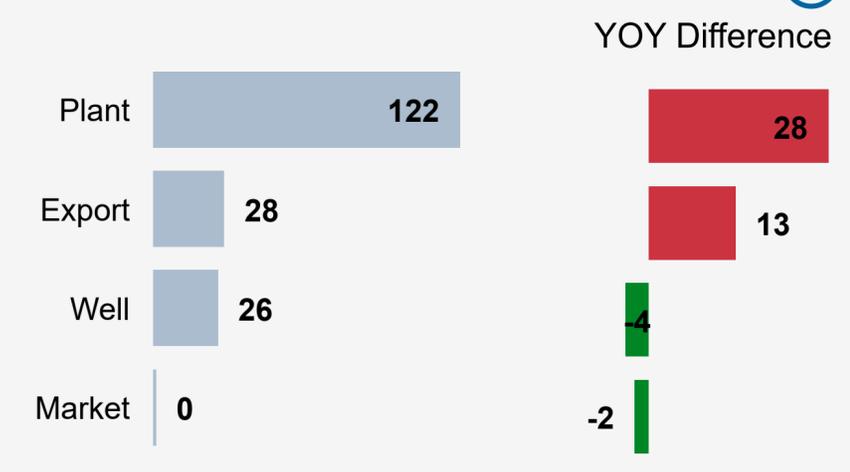
A drop in PE was predicted for 2021 due to the planned Forties Pipeline System (FPS) maintenance shutdown and other deferred shutdowns, however the 7 percentage point fall in PE was lower than expected.

Production losses increased by 25.3% from 2020. The increase in losses was due mostly to plant and export losses, which correlates with the FPS closure. Challenges associated with staffing and other operational issues related to the pandemic may also play a role on

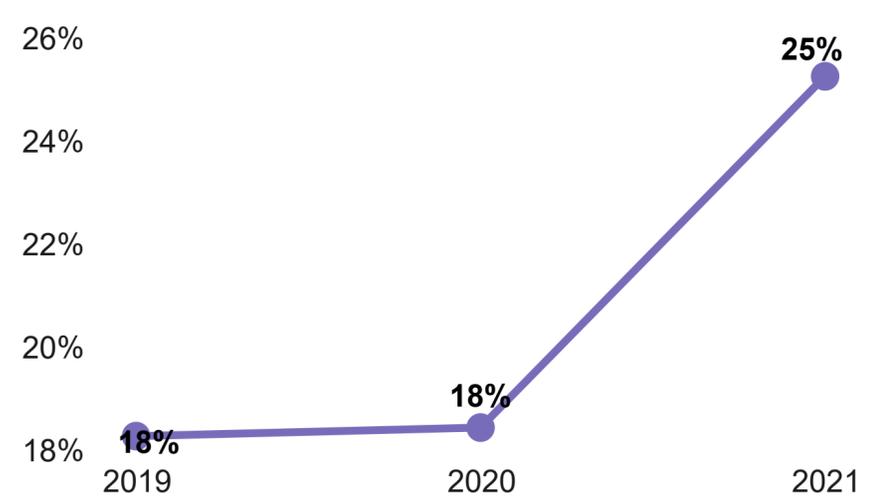
UKCS PE Trend



Loss by Category (mmboe)



Percentage of Loss EMPP



Select Filter

- CNS
- NNS & WoS
- SNS & EIS

- 2021
- 2020
- 2019

Reset Filter

UKCS Regional Split

AWP decreased by 103 mmboe, and no region achieved the 80% KPI PE target.

Both AWP and EMPP dropped considerably (103 and 65 mmboe respectively), but the drop production was 8% higher, causing the decline in average PE.

Both the West of Shetland (WoS) and Northern North Sea (NNS) narrowly missed out on reaching the PE target in 2021.

WoS, increased by 1 percentage point from 2020 while NNS decreased by 3 percentage points.

The Southern North Sea (SNS) region experienced the most change in AWP and EMPP leading to a 14 percentage point drop to 63%. PE in the East Irish Sea (EIS) region remained at 61% and has endured the lowest PE in the UKCS for the past 3 year. This was mostly due to unplanned terminal outages.

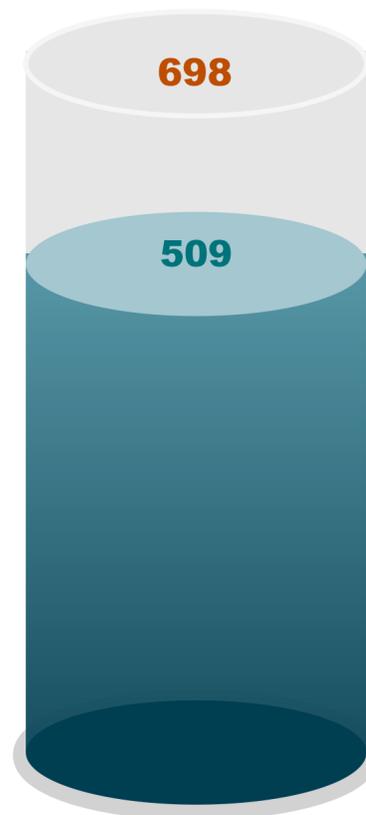


-17%
AWP Percentage change

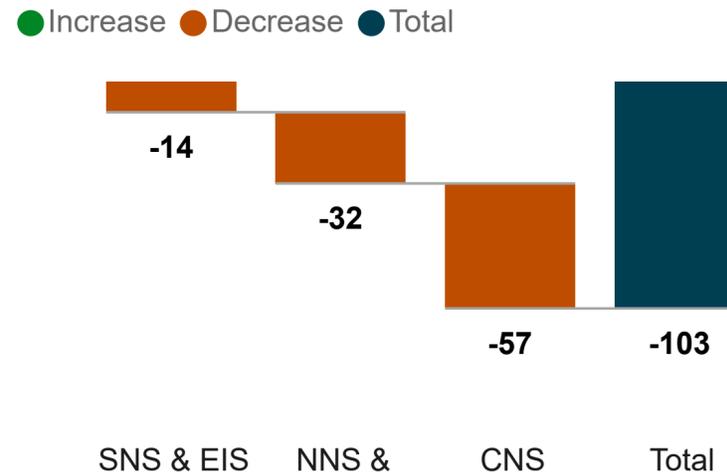


-9%
EMPP Percentage change

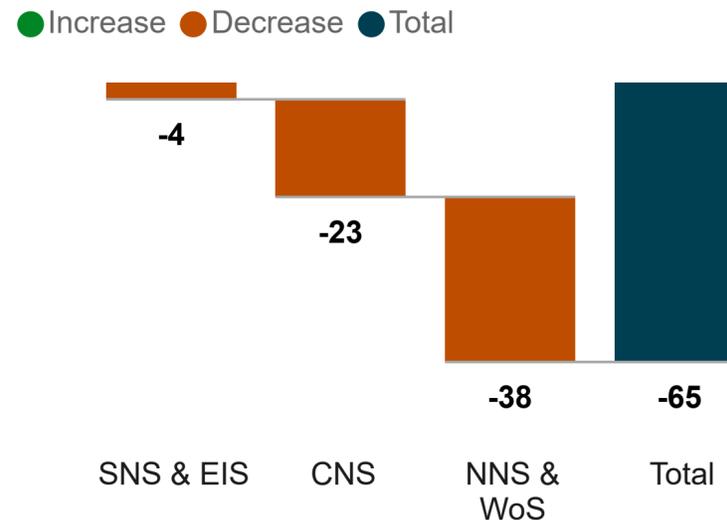
Production & Potential (mmboe)
EMPP **AWP**



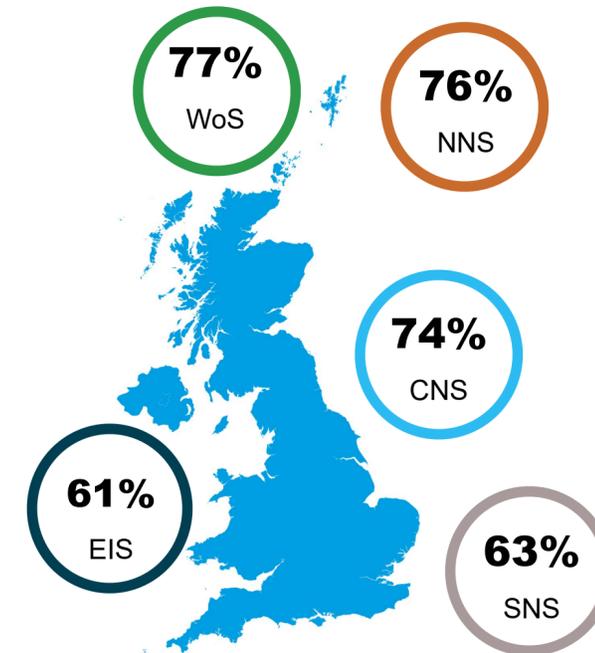
AWP Change (mmboe)



EMPP Change (mmboe)



PE by Region Loss by Region



Select Filter

- CNS
- NNS & WoS
- SNS & EIS

- 2021**
- 2020
- 2019

Reset Filter

Hubs efficiency

High shutdown days and only 31% of hubs reached target.

31%
Hubs over 80% PE

76%
Large Platforms

71%
Small Manned Platforms

72%
Floating Hubs

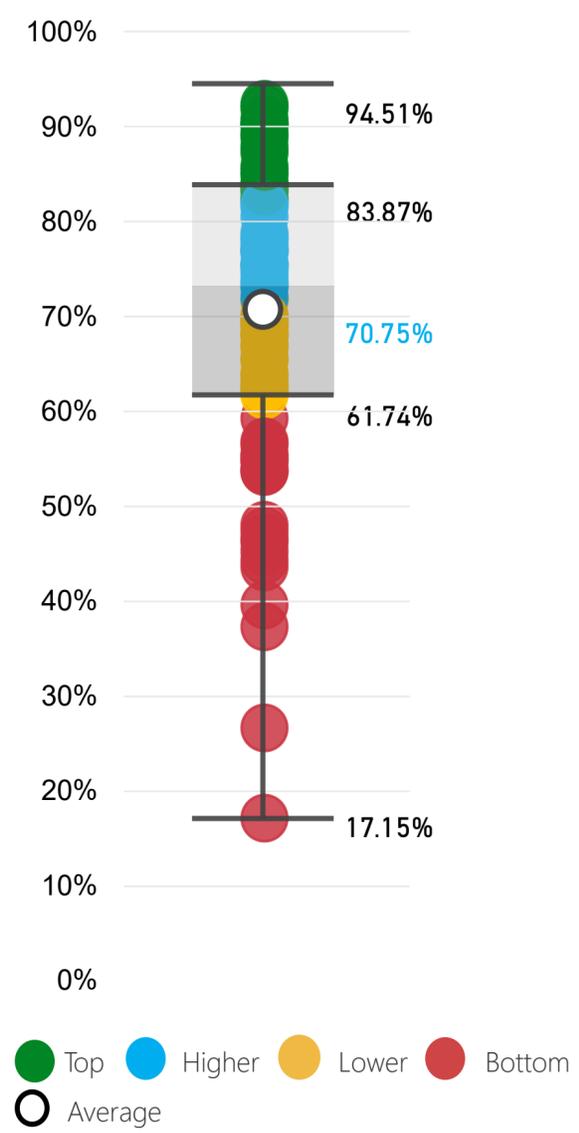
67%
Unmanned Platforms

PE for most hubs is lower in 2021 than in 2020, with the median PE at 73.2%, 7% points lower than 2020. Dispersion is also higher, the difference between PE in the lower and the third quartile (IQR) higher than in 2020, indicating a wider spread of PE. Only 31% of UKCS hubs reached KPI PE target, 17% points less than in 2020.

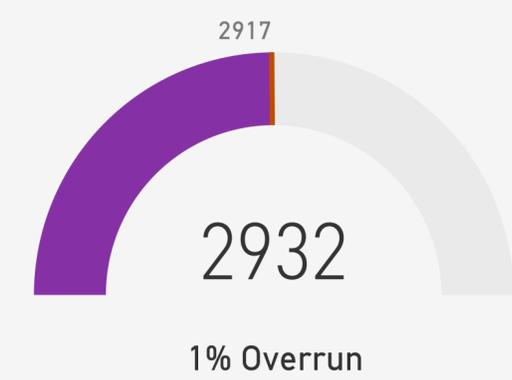
All hub infrastructure types did not achieve the target. Unmanned platforms had the lowest PE at 67%, despite a 2% point increase from the previous year. Large platforms had the highest at 76%, an 8% point drop from 2020.

There was a 45% increase in shutdown days in 2021 compared with the previous 3 years average. This is influenced significantly by the FPS maintenance shutdown. A

Total Hub PE distribution



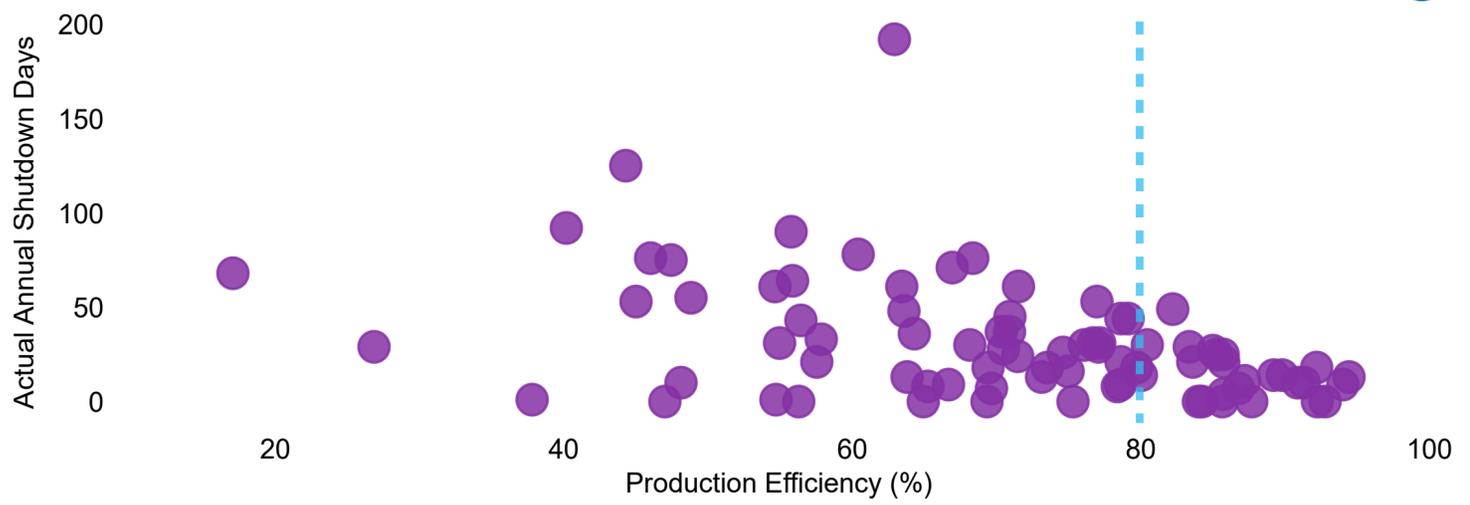
Actual vs Planned Shutdown (Days)



Annual Shutdown days (2021)



Hub - Shutdown days and PE



Select Filter

- CNS
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Reset Filter

Losses

Losses increased by 25% from 2020, adding to a total of 176 mmboe that could have been produced in 2021.

176
Total Loss (mmboe)

25%
Percentage change

30%
Plant

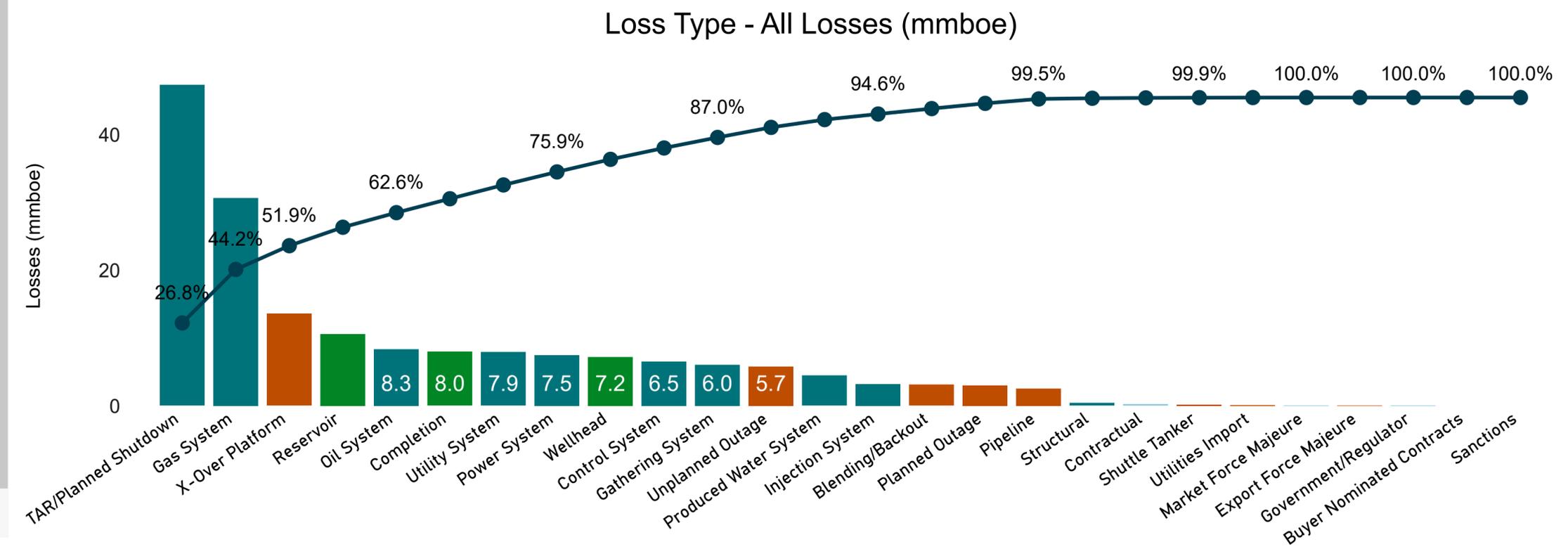
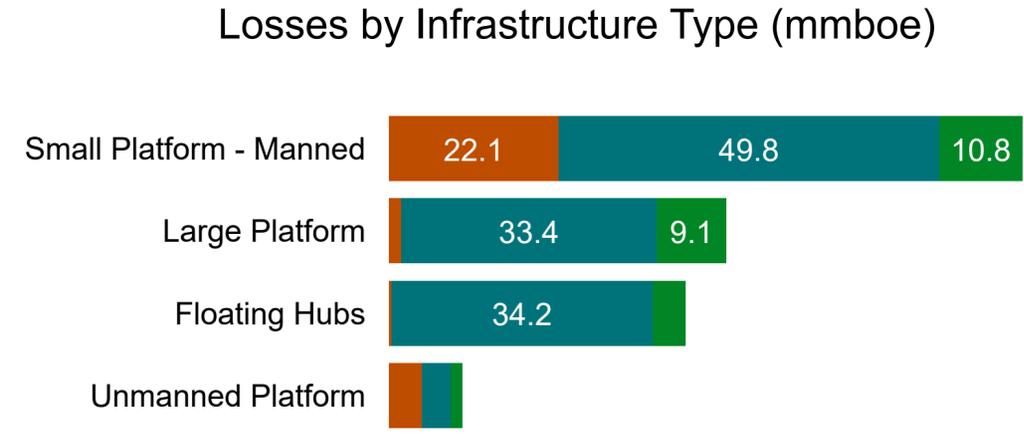
-12%
Well

91%
Export

Plant losses increased by 30% from the previous year to 122 mmboe. Continuing the trend over the last 4 years. Losses due to turnaround maintenance (TAR) or planned shutdowns and gas system failures were the top two loss types. TAR/Planned shutdowns accounted for 27% of production losses, while 17% was due to gas system challenges, predominantly related to gas compression.

Export losses increased by 91% from 2020. It was largely influenced by a jump in X-Over Platform losses, which are related to cross over services to other installations.

Well losses saw an improvement, a 12% reduction from 2020 as a result of decreases in reservoir and wellhead losses by 24% and 19% respectively.



Select Filter

CNS

NNS & WoS

SNS & EIS

2021

2020

2019

Reset Filter