Subsea electrification
Improving the capacity and life span of oil and gas fields

Subsea gas compression
Gas compression installation

The world’s first subsea gas compression stations from the Åsgard field (H1 and H2) have been installed. Improving production capacity and the life span of the field

Challenges for subsea development

- Most isolated subsea oil and gas fields are found in remote areas with harsh environmental conditions, making them challenging to access
- To efficiently extract oil and gas, more equipment will be needed, making the operation more complex and challenging
- The subsea environment has unique characteristics, such as high pressure and low temperature
- To allow for efficient subsea operations, new technologies are required

Benefits of subsea installations

- Subsea installations improve the production capacity by extending the life span of the offshore oil and gas fields
- Can be connected directly to an onshore plant, eliminating the need for offshore structures
- Can be installed quickly to accelerate production
- Reduced capital and operational expenditure due to fewer topside structures and fewer staff

Sources:
- Åsgard project
- 260m: Man’s limit in an atmospheric suit
- Deepest diving: Soviet nuclear combat sub
- 690m: Sunlight no longer penetrates
- 1000m: the furthest depth for oil and gas extraction and the sperm whale
- 300 bar pressure: will crush a common house-brick
- Colossal Squid: can dive up to 2.2km
- 278 million barrels: Enough to power the entire US for 2 weeks

Subsea stations are nearly the length of a football field, as long as being 1072