Using GIIGNL GHG MRV Framework Template & LNG cargo MRV statement

Experience from Equinor Hammerfest LNG

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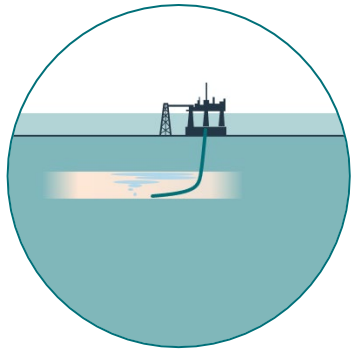
GIIGNL Joint 44th CSG and 77th TSG Meetings

CCS in Equinor | Stepwise build of new industry

29 year of experience

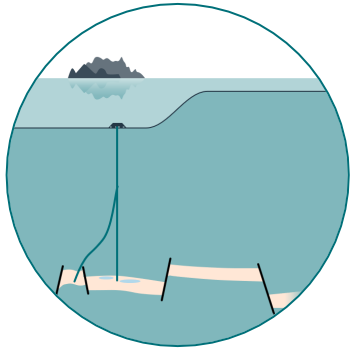
- Nearly 30 Mt stored to date
- Wide range of concepts

Sleipner | 1996



CCS works!

Snøhvit | 2008

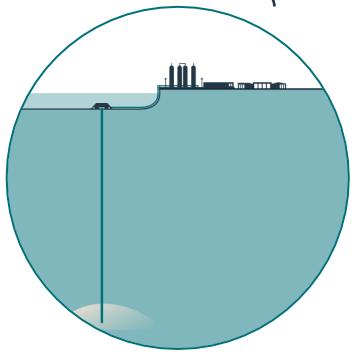


Expand technologies

TCM | 2012

Reduce capture cost

Northern Lights | 2024

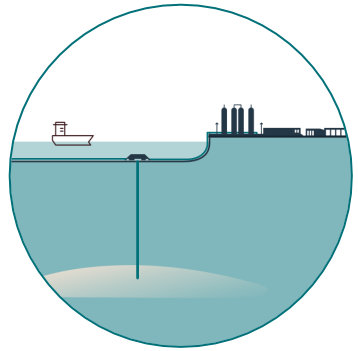


Market opener

NEP | 2027
Bayou Bend | 2027

Beyond NCS

Norway Hub | 2029
Smeaheia | 2029
CO2 Highway | 2030
CO2 Storage Kalundborg | 2030
Kinno & Albondigas | 2030



Bring costs down through scale-up

Future potential

NWE & US

Future CCS ambitions

- 30 – 50 Mtpa by 2035 (Equity)
- Focus: North Sea Basin and Texas coastal area

The evolution of Equinor's CCS technology

Sleipner

- **The world's first industrial -scale CCS project in 1996**
- The Sleipner gas field is located in the **North Sea**, about 250 km offshore
- The natural gas from Sleipner contains 4-9 %CO2,, which must be reduced to 2.5%
- Instead of venting it, the CO2 is compressed and injected into a reservoir located ~1000 meters below the seabed.
- Around **1 million tonnes of CO2 per year** has been stored since 1996.

Snøhvit, Hammerfest LNG, Melkøya

- **The first Arctic CCS project**
- The Snøhvit gas and condensate field is located in the **Barents Sea**, about 140 km offshore
- The natural gas from Snøhvit contains 5-8 %CO2,, which must be removed before liquefaction
- Instead of venting it, the CO2 is compressed and injected into a reservoir located ~2600 meters below the seabed.
- Around **0.7 million tonnes of CO2 per year** has been stored since 2008

The evolution of Equinor's CCS technology

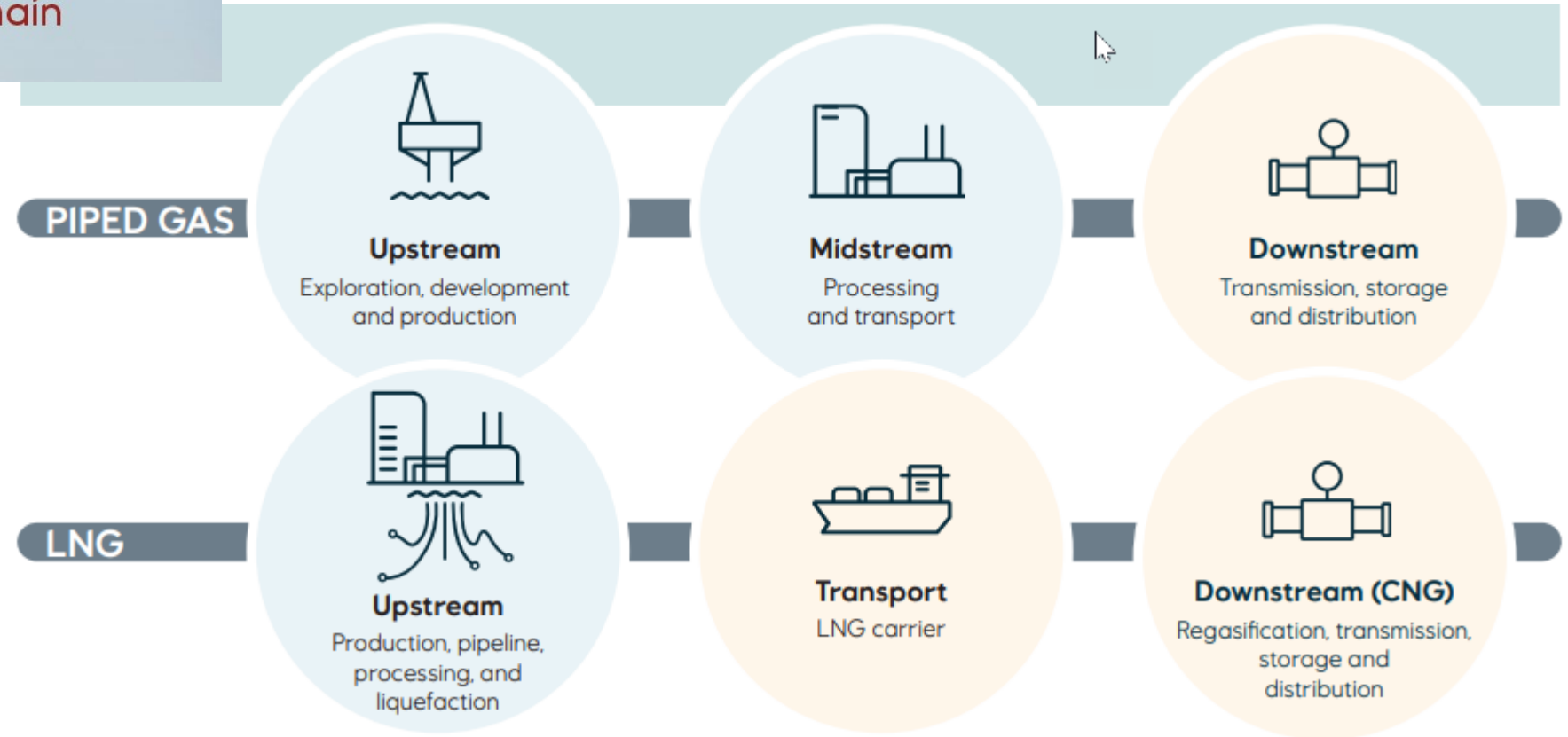
Technology Centre Mongstad (TCM)

- **The world's largest and most flexible test centre for post-combustion CO2 capture from flue gases**
- A joint venture with Shell, Sasol, and the Norwegian government, operational since 2012.
- It tests multiple capture technologies simultaneously at semi-industral scale for post-combustion CO2 capture from flue gases,
- **More than 10 different technologies significantly matured** at this facility.

Northern Lights

- **The world's first cross-border CO2 transport and storage**
- A joint venture with Shell, TotalEnergies since 2021
- Scope :
  - **Transport** liquid CO2 by ship ,
  - **Receiving CO2 terminal -** intermediate onshore storage and pipeline transport to offshore storage location
  - **Permanent storage** – CO2 is injected into reservior located 2600 meters below seabed.
- Phase 1 with state funding
- Phase 2 : without state funding

Greenhouse gas and methane intensities along Equinor's Norwegian gas value chain



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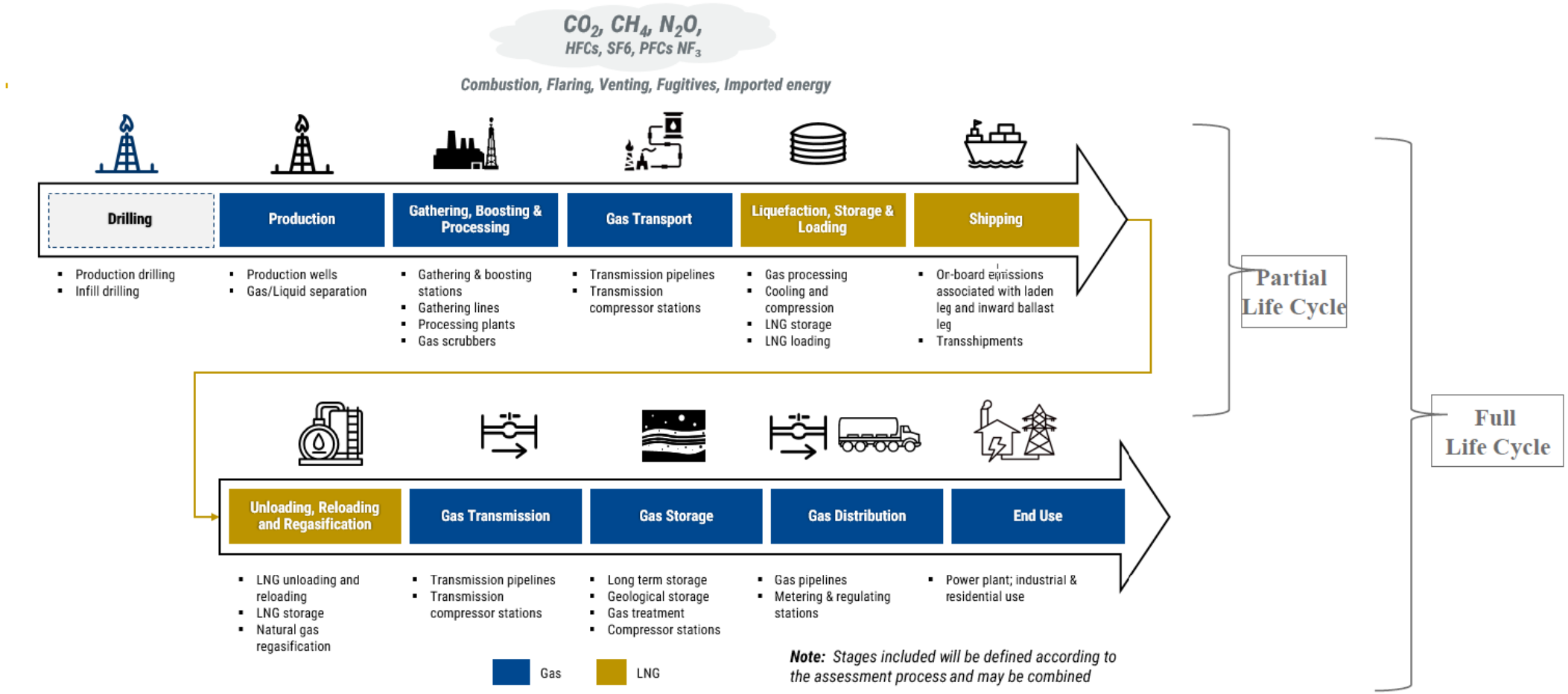
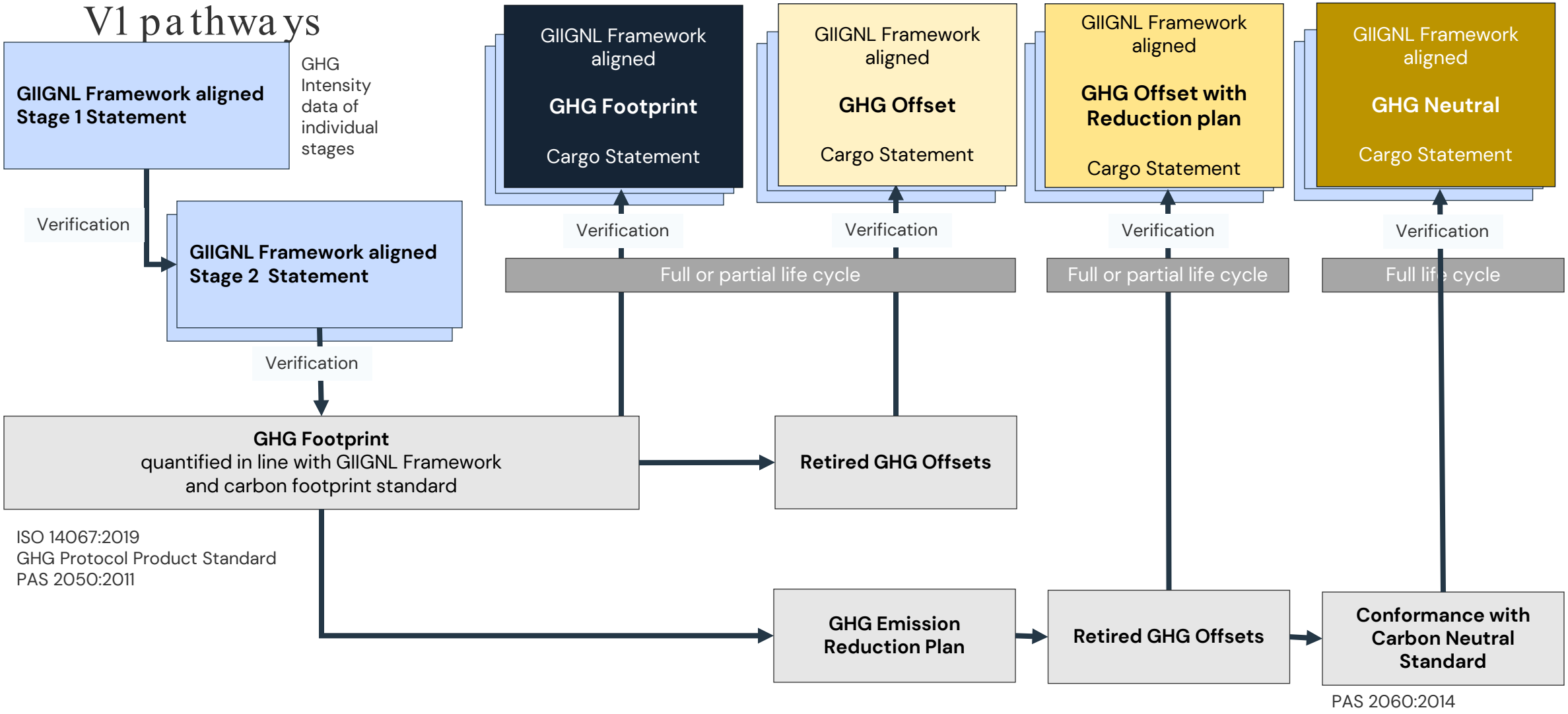
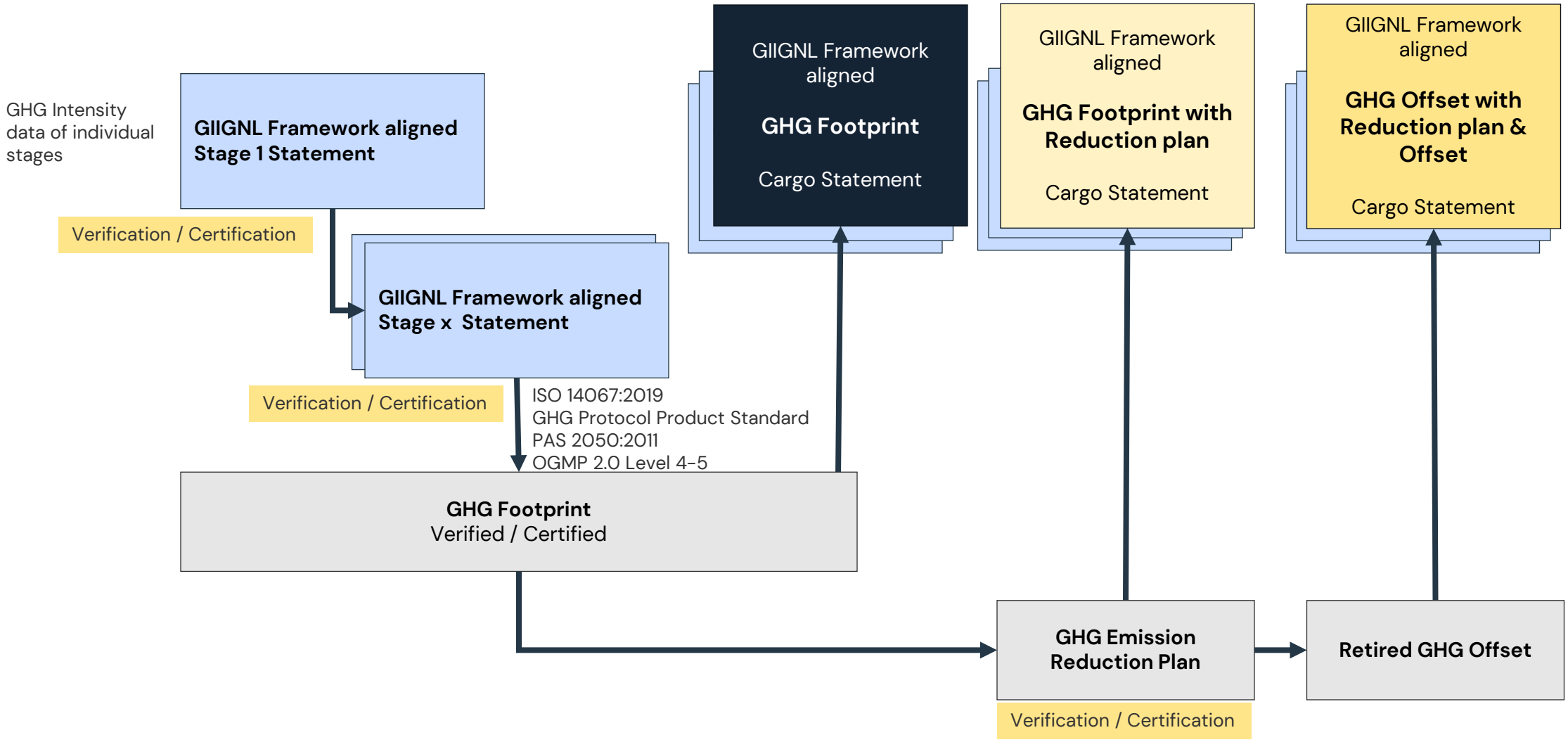
FRAMEWORK BOUNDARIES



GIIGNL GHG MRV Framework V1 pathways



GIIGNL GHG MRV Framework V2 pathways



Open GIIGNL MRV Template to view the details