



GIIGNL Osaka

29 Sep 2025



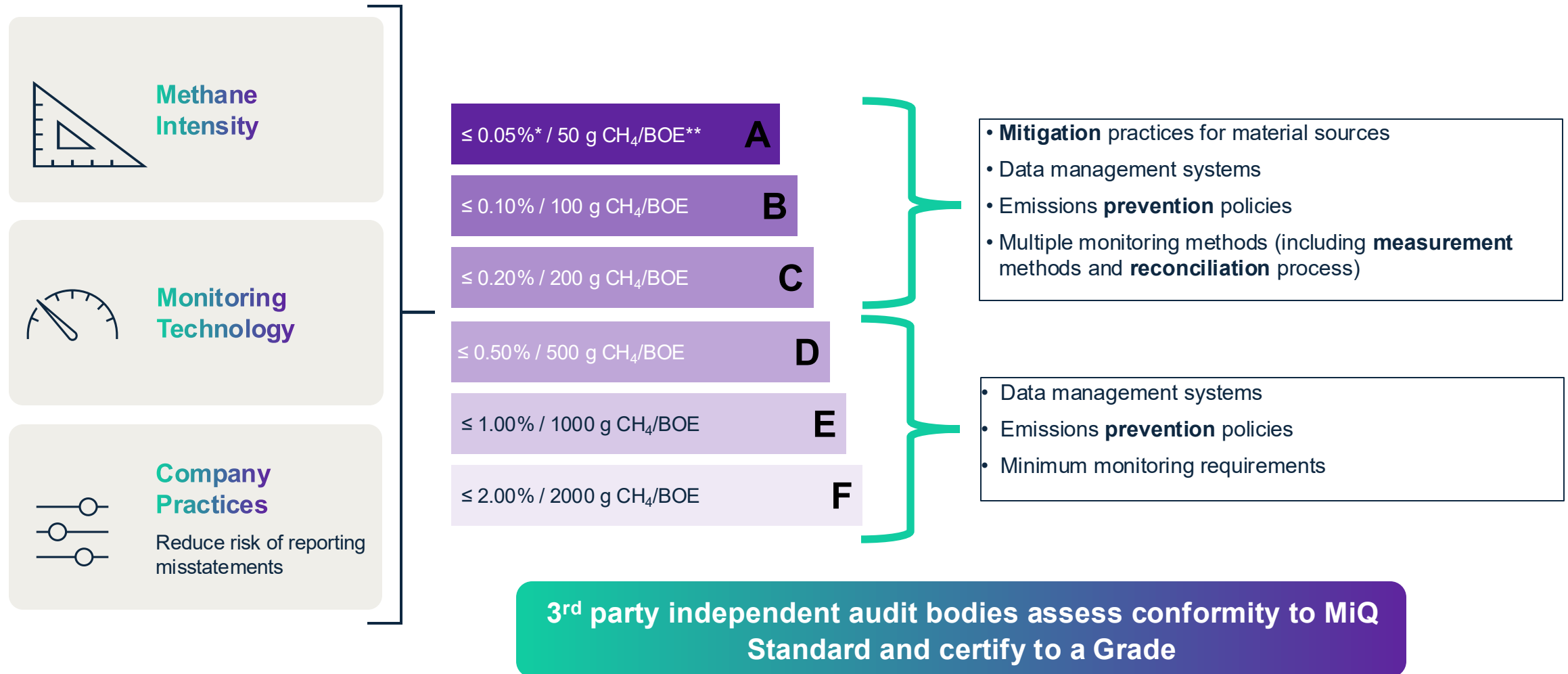
MiQ - Methane IQ

- MiQ is a global not-for-profit, founded in 2020 by RMI (Rocky Mountain Institute) and SYSTEMIQ.
- Our funders are philanthropical organisations with a mission to address oil and gas methane emissions.
- "Theory of change": certifying methane emissions, leads to a differentiated gas market for buyers or importers incentivising better operator performance.
- MiQ pioneered certified gas as a category. It is fully operational with 240 bcm/year certified by MiQ



Methane in oil and gas is the low hanging fruit to slow down climate change. See Carl Pope in the New York Times

Methane Performance Standard (“MiQ classic”) Grading System



* Intensity bands presented are for the production segment

** Metric dependent on if oil is co-produced

MiQ standard has many similarities to OGMP L5. MiQ and OGMP are jointly developing a certification protocol for L5 assets, an alternative certification pathway to MiQ Performance Standard certification

Route 2: L5 OMGP certification (draft)

- OGMP is currently covering 42% of world production, MiQ has practical experience of certification globally
- The EU Methane Regulation references OGMP L5 ¹, however the EU also requires verification ²
- CLEAN voluntary initiative could leverage L5 data sources to build out supply chains to Japan/Korea ³
- Overview of the L5 certification initiative:
 - 2Q25: MiQ and OGMP drafted the first certification protocol for L5
 - 3Q25: Draft protocol reviewed extensively by operators, NGOs, regulators, auditors
 - 4Q25: MiQ and OGMP developing updated version of L5 certification ⁴ , based upon feedback
 - 1Q26: Updated protocol v2 released for feedback
 - 2Q26: Pilot/trial with voluntary market participants

(1) There are other pathways allowed, such as producer equivalency or country equivalency. The EU is only concerned with producer level info, not LNG

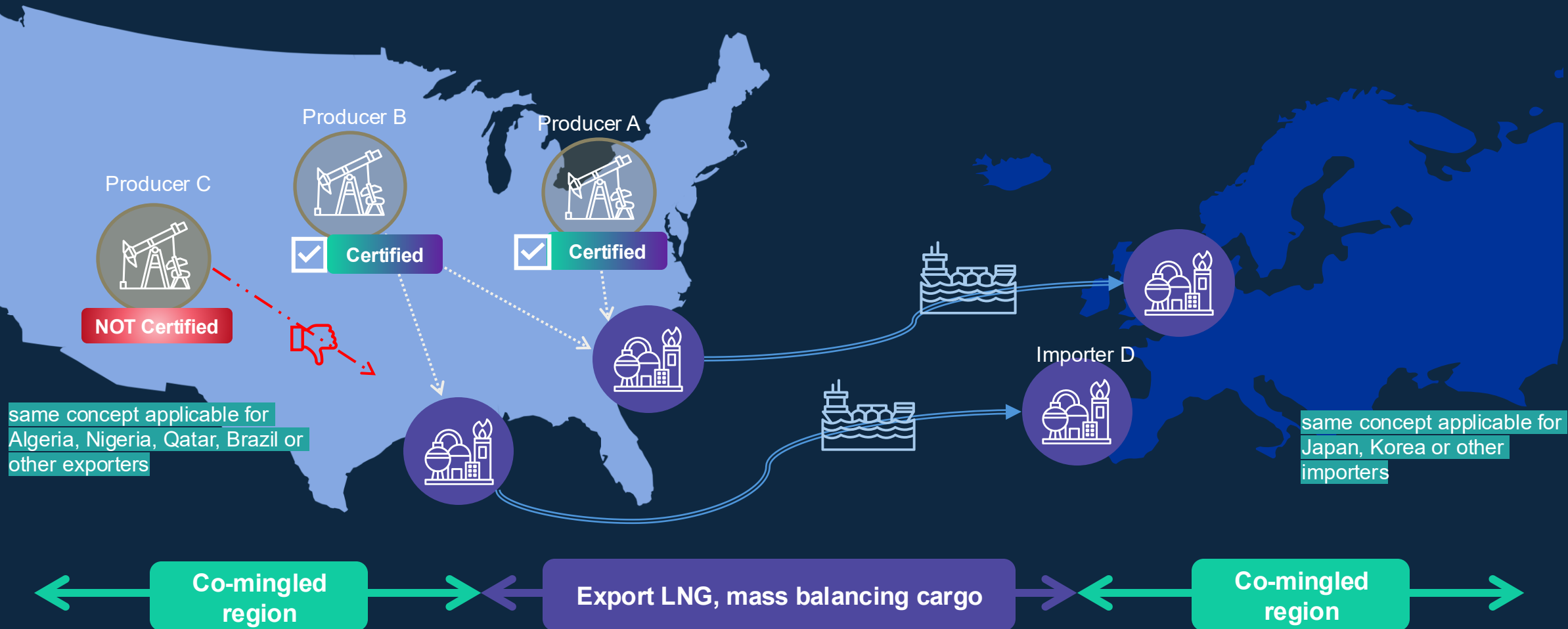
(2) The EUMR requires a layer of verification by a third-party auditor – this is not built into the OMGP process

(3) CLEAN is concerned with the full supply chain, including LNG and also CO₂, not only methane. It is voluntary unlike EUMR

(4) Update V2 will be reviewed with industry organizations such as IOGP and GIIGN but also EU and Asian governments will be consulted

CIRIS: Certificate Inter Regional Import System

A pragmatic emission tracking solution to complex supply chain systems

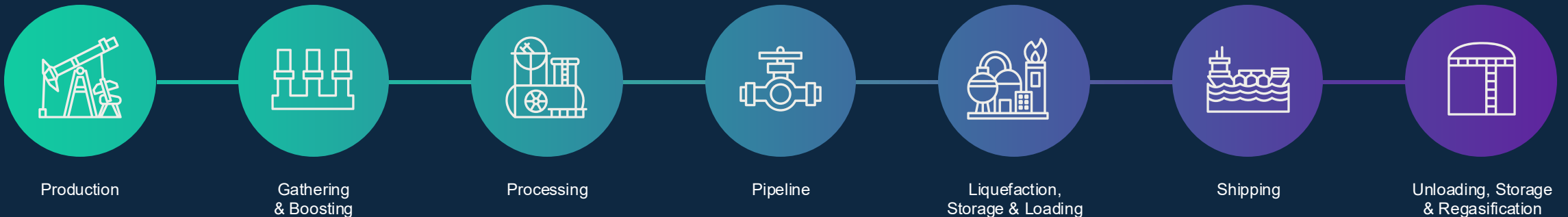


Certificates with asset specific MRV → LNG import checked by MiQ Registry (CIRIS) → no double counting, no global book and claim

MiQ Supply Chain Protocol

MiQ created an open-source framework based upon three years of research to:

- Create supply chain emissions determinations and inform the marketplace TODAY
- Utilize heterogenous data sources as we align to higher quality data methodologies
- Utilize accepted LCA and LCI principles, including ISO 14040 and ISO 14044
- Align behind a DQI system that recognizes the importance of measurement-informed inventories and third-party verification
- Aligned with GIIGNL attestations, and solutions for regulatory markets



Analyse and compare LNG supply chains

Supply Chain Declaration for buyers

MiQ Scout
Release early 2026

Select Supply Chains

Supply Chain 1 (reference)

Ichthys AUS to Japan

Supply Chain 2

Australia National Ave to Japan

Supply Chain 3

Chesapeake Haynesville to Japan

Edit Parameters

Memorable name *

Japan imports

GWP

20 year GWP (82.5 x)

Monthly Volume (MMBtu)

3,000,000

Start Month

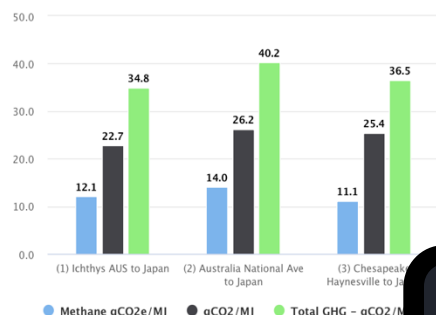
Nov-24

Number months

3

Calculate

Calculate



Detailed Results

		Ichthys AUS to Japan	Australia National Ave to Japan	Chesapeake Haynesville to Japan
Total volume	MMBtu	9,000,000	9,000,000	9,000,000
Methane Emissions	%	0.88%	1.02%	0.81%
	g/MMBtu	154.2	179	141.5
	gCO2e/MJ	12.1	14.0	11.1
	DQI	24.0	22.6	20.2
	MT	1,387.8	1,608.3	424.5
	MT CO2e	114,494	132,685	35,021
	delta MT CO2e		18,191	-79,472
CO2 emissions	gCO2/MJ	10.6	12.2	11.1
	MT	100,602	115,578	125,450

MiQ - MethaneScout 0.8 (beta)

Gas Supply Chain Asset Data MiQ Protocol Tables Help My Team Admin

Calculate

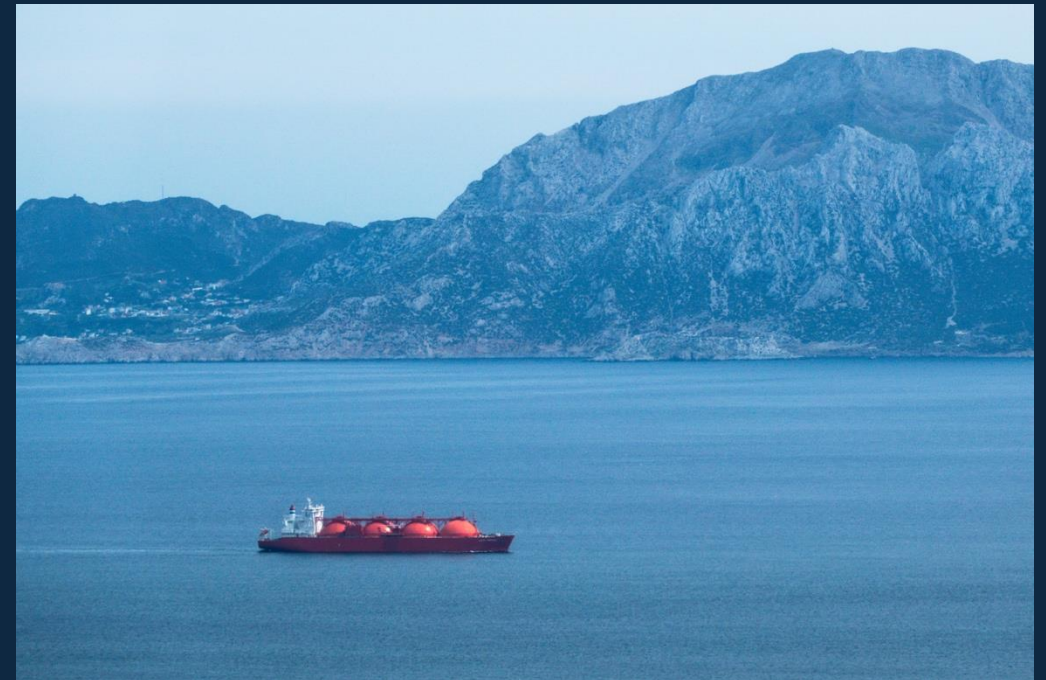
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Facility or Benchmark	Segment(s)	Country	Operator	Methane Best Available Data	Methane DQI score	Methane Intensity %	Methane Intensity gCH4/MMBtu	CO2 Intensity gCO2/MMBtu	CI GWP 20yr gCO2e/MMBtu
bp energy - Eagle Ford	Production	United States (USA)	BP America Production Company	MiQ	1	0.20%	35.1		2,896
Gulf Coast Basin (Midstream)	Midstream (B&G, Processing)	United States (USA)	(Basin)	Basin-level data extrapolated from Sherwin et al (2024)	24	1.92%	336.5	4,793	32,554
Transmission Eagleford to Cameron Parish (310 miles)	Pipeline and Storage	United States (USA)	Kinder Morgan	GREET BU/TD Hybrid (2023)	24	0.17%	29.2	2,510	4,919
Freeport LNG Import Terminal	LNG Liquefaction	United States (USA)	LNG Freeport Development LP	GHGRP, Pre-RY2024, no 3P Audit (self-reported)	18	0.01%	1.4	292	408
US Gulf Coast to NW Europe, X-DF LNG ship	LNG Shipping	(LNG ship)	N/A	Rosselot et al (2023)	18	0.10%	17.1	1,157	2,567
Grain LNG	LNG Regasification	United Kingdom (UK)	National Grid	MiQ	1	0.10%	17.5		1,444
Total / Average					21.0	2.49%	436.9	8,752	44,787

GIIGNL & MiQ ...

collaboration based on respective strengths

- Leverage both not-for-profit organizations strengths to build out of supply chain emissions & differentiate low emissions LNG cargoes – **pragmatically & credibly**
- Collaborate on CLEAN initiative. This could include certified or partially certified full supply chain **pilots** from varying jurisdictions into Japan or Korea
- MiQ has developed SCP (version 2.0 imminent), trialing MiQ Scout, and would like to pilot protocol and operationalizing tool with operators in Asia or Atlantic basin.
- OGMP L5 certification protocol will add a huge amount of extra data sources to trial. Other new data sources could jointly be analyzed and included.





The building blocks are finally in place in 2025
Forward leaning LNG operators want to showcase low emissions cargoes

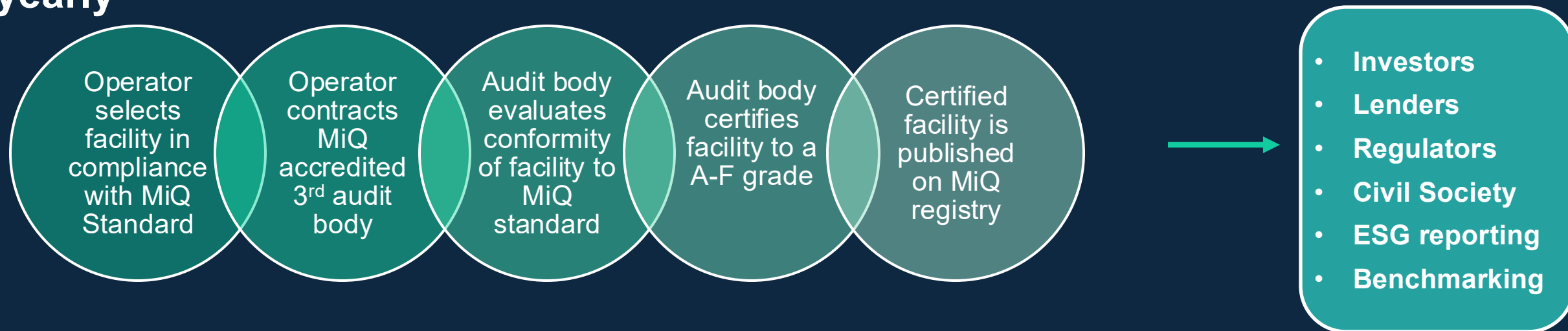
Governments including EU and Japan want address methane but also preserve security of supply

Let's make it happen together, pragmatically

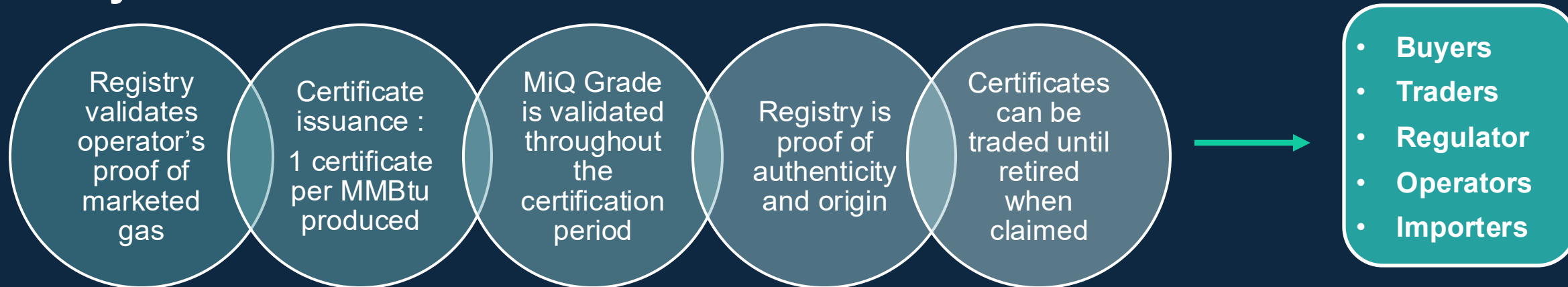
Backup slides

Certificates → differentiate Performance & Origin of gas

yearly



monthly / when traded



Why certified gas?

Achieve both environmental and security of supply objectives



Differentiation for Companies

- **Independent** reporting
- Producers can **differentiate** their gas from competitor's higher emissions gas
- Buyers / countries can choose lower methane certified gas to meet voluntary GHG targets
- Make the case for coal to gas switching
- Make the case for blue ammonia / H2
- Cost effective

Country & climate objectives

- Facilitate voluntary initiatives such as **CLEAN**
- Producers can export lower methane certified gas, lowering their country's emissions.
- Import countries could fast-track import standards relying on certification
- Cost effective

Regulation & Reporting

- **EU Methane Regulation 2027** onwards.
- **CBAM** will extend to methane
- Demonstrate lower scope 1 & 2
- Credible backup for ESG and GHG claims and reports
- Credibly demonstrate low emissions to lending banks, insurers, investors
- Credible Scope 3 reporting for gas buyers