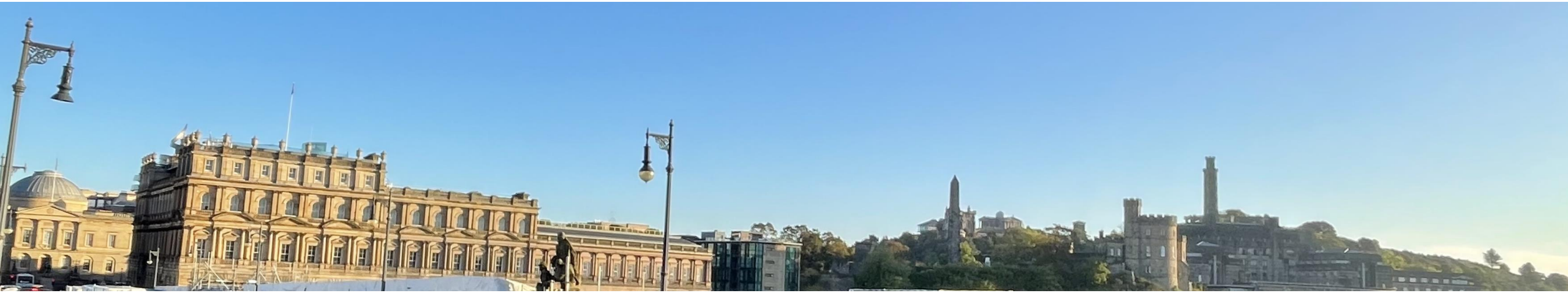
Mark Spring
Technical Authority for structures

FLOTATION ENERGY

# Triple Jump Gold

## cautious steps, anticipating the big leap



## Mark Spring, Technical Authority for structures

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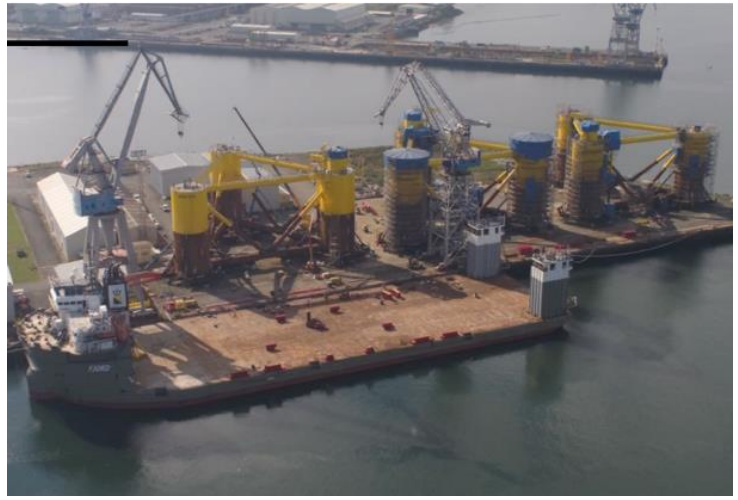
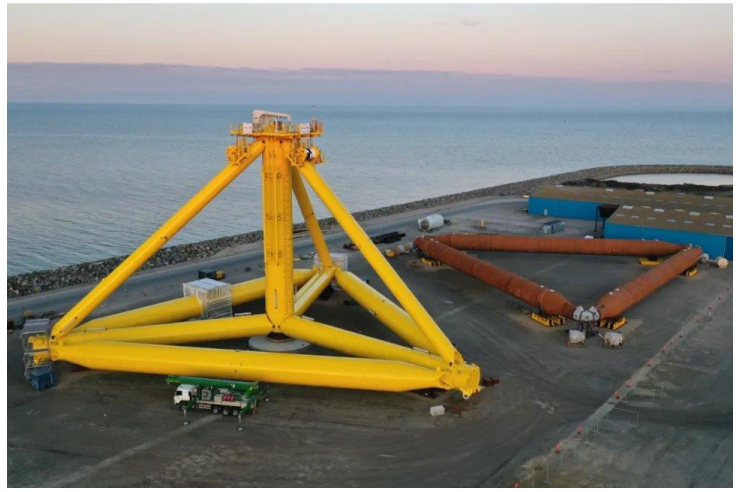
# About us

## Teamed with Japan's largest utility

| | |
|---|---|
| Founded 2018 | An **agile developer**, driving forward UK Floating Offshore Wind (FOW) roll out at pace |
| +**2.5** GW | **Secured UK pipeline** in delivery (w/ innovation features) + growing, robust **international pipeline** |
| TEPCO RP | Acquired by **TEPCO Renewable Power** in late 2022. Resourced for delivery: 160+ global head count |
| FOW profile | Unique FOW experience, the logical **successor to Kincardine** Applied technical expertise – **insights embedded** in projects |





# Market context – exponential scaling

## FOW ramping to 2-8 FWTS p.m 2030-2050

**1.** T&D sites

**2.** Scaling w/ Green Volt

**3.** Cenos @ **1.4** GW

**4.** ScotWind

The world's current, largest operational floating windfarm is **88 MW** (11 turbines)

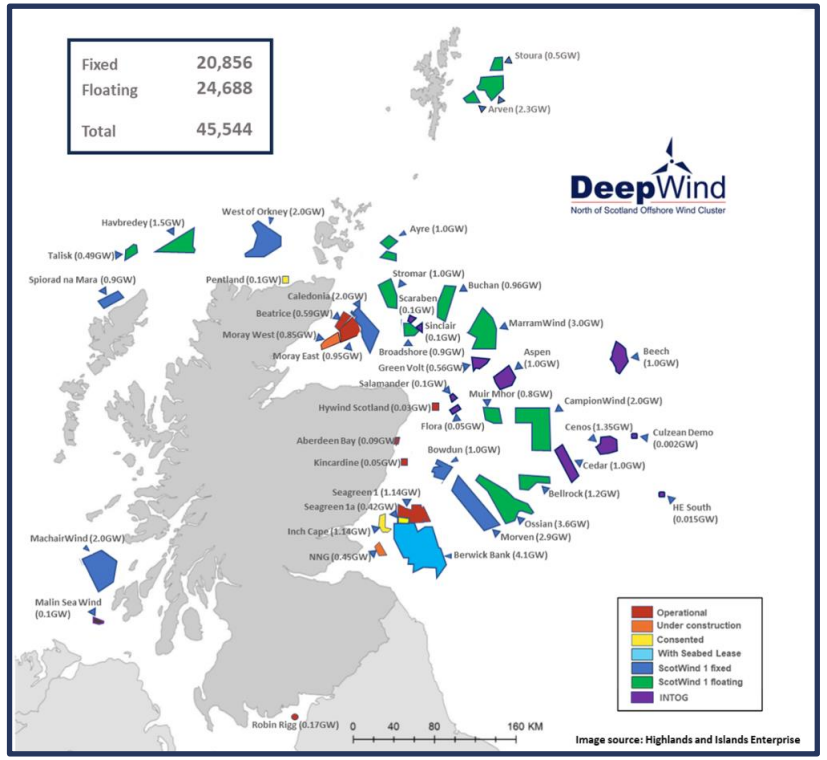
GREEN VOLT

Up to **560 MW (~35 turbines)**

£6bn+ GVA to global economy *

cenos

Up to **1400 MW (~90 turbines)**




*Gross value added (INTOG projects)

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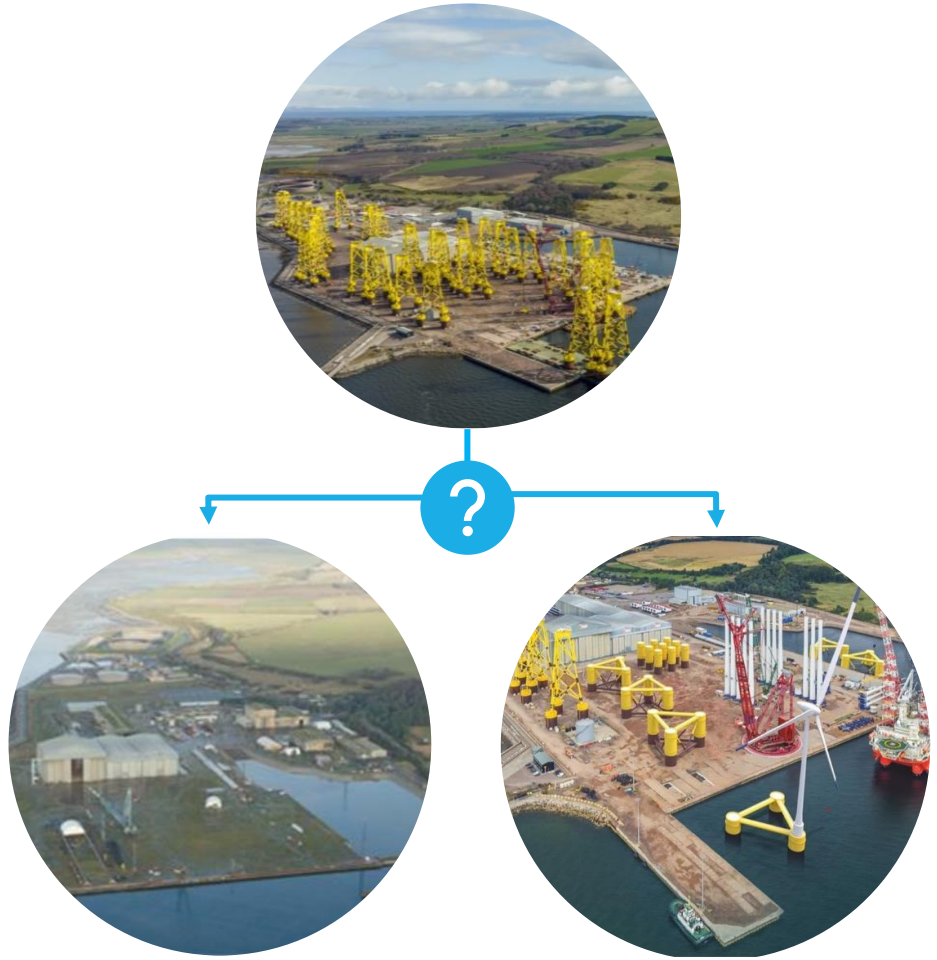
# Status check

## Defining the opportunity

**Scotland's opportunity** → **+41 GW of OSW**

**KPIs:**

- **Consented = 5%**
- **Consent submitted ~20%**
- **Scoping submitted ~55%**

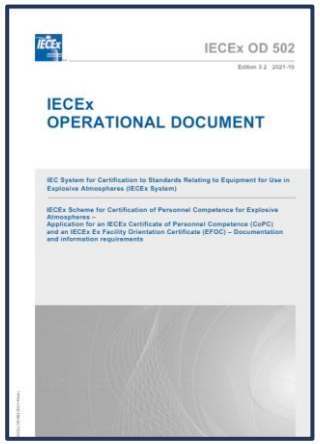


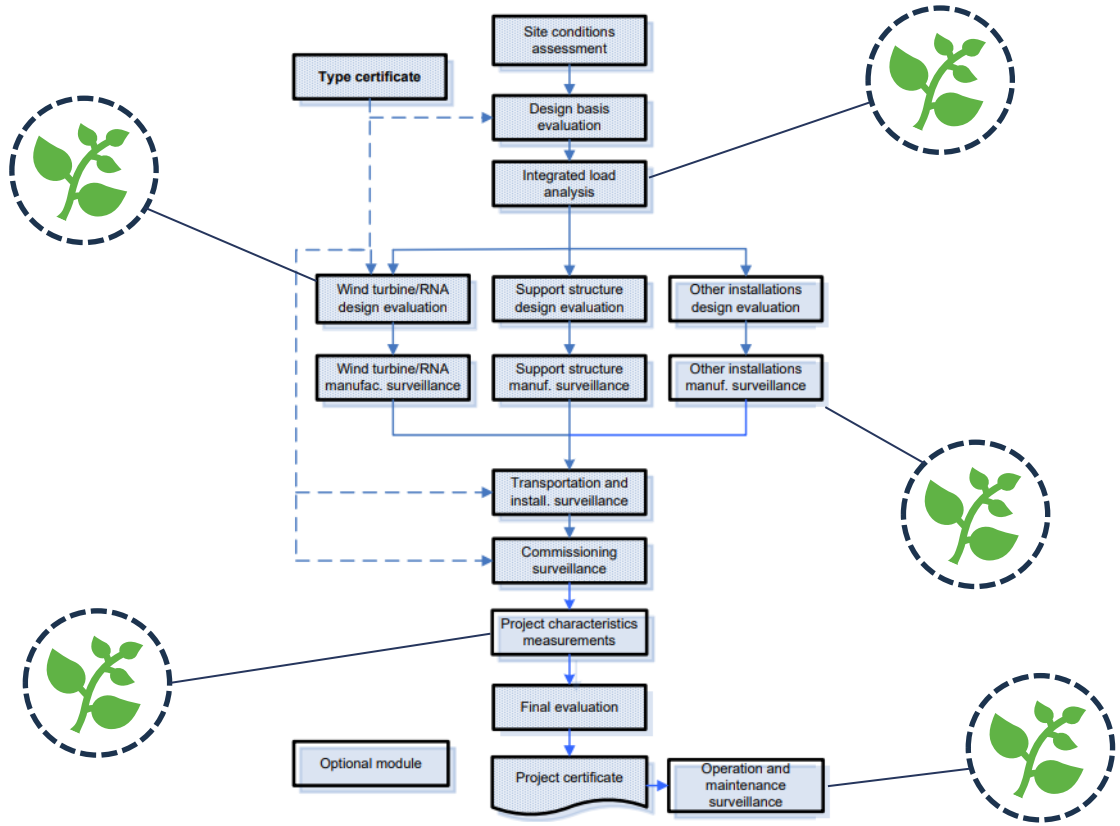

| No. FWTs – Pipeline vs WTG size | | | |
|---|---|---|---|
| | **15MW** | **20MW** | **25MW** |
| **10 GW** | 666 | 500 | 400 |
| **20 GW** | 1333 | 1000 | 800 |
| **30 GW** | 2000 | 1500 | 1200 |

**= 25 – 100 FWTs/year for 20 years!**

# Risk and opportunity – a developer's view

## Incremental risk reduction – based in "compliance"




*"Turbines require heavy maintenance"*

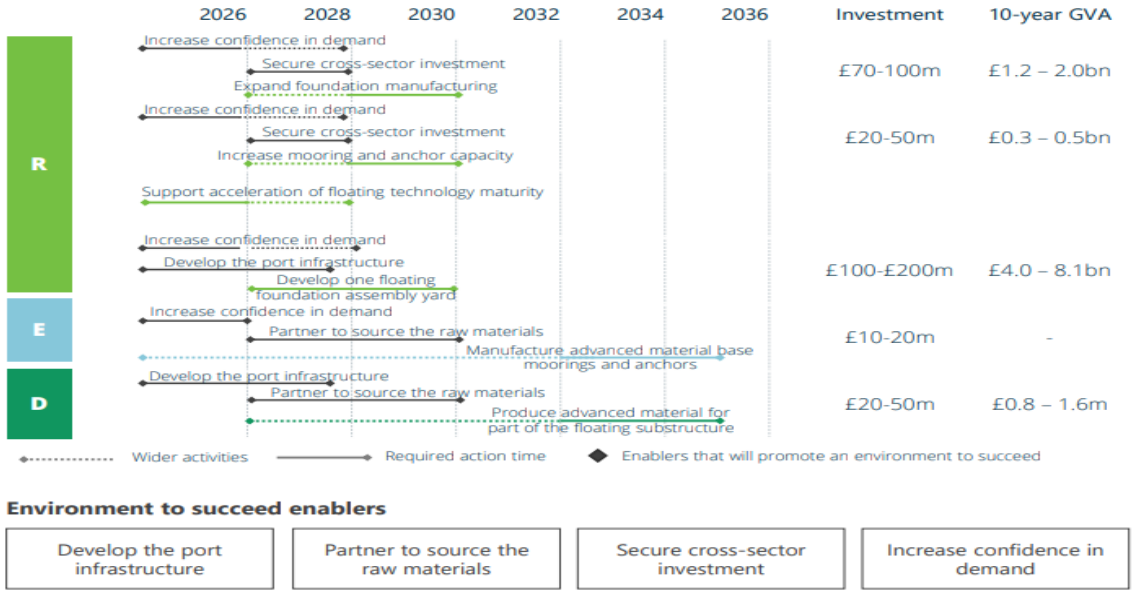
*"Offshore windfarm reports 63% capacity factor"*

# UK industrial growth plan

## Setting the challenge and the pace

**(R)espond, (E)xpand and (D)isrupt Programmes**

Investment in manufacturing and standardisation of foundations, particularly for floating projects and deeper water fixed bottom water, would help the UK capitalise its first mover advantage in the floating offshore wind space, becoming a market leader in supply.




**Environment to succeed enablers**

| | | | |
|---|---|---|---|
| Develop the port infrastructure | Partner to source the raw materials | Secure cross-sector investment | Increase confidence in demand |

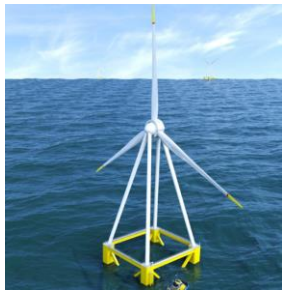

**Strategic investment = more than developers**

**Timeline transparency would be a big step**

**Aligning behind IGP will drive commonality**

# Disruptor technologies

## Friend or foe of industrialisation and scale?







# Serialising and scaling

## Progressive substructure design derisking commercial opportunity


**Shipyard construction**

- Mature methods
- +4 months / unit


**Modular assembly**

- Mature methods
- immature logistics
- 1-3 months / unit


**Modular rapid assembly**

- Immature technologies
- Immature logistics
- <1 month / unit

# Thank you

markspring@flotationenergy.com