

Mainstream Renewable Power



„Energiezukunft Westafrika. Menschen. Kompetenzen. Technologien“

11. Oktober 2023

Romana Hartke

A WORLD ELECTRIFIED
BY RENEWABLE ENERGY

Oslo

Romana Hartke



Kuressaare

Berlin

- Diploma in Economics - Hanover
- 2008- 2010 Graduate Program with E.ON in Accounting & Controlling
- 2010 Nuclear power, new build projects: Coal & Gas power plants, Biomass conversion projects
- Since 2017 Offshore Wind with E.ON / RWE Renewables: Arkona Offshore Wind Farm construction, Offshore Wind Development
- Since 2022 with Aker
- Married with two children
- Social commitment: Working Mom's e.V.

Our vision, mission and values



Vision

The realities of climate change and concerns for energy security are driving world leaders to look to renewable energy as the solution.

Our vision is to electrify the world with renewable energy.

Mission

The world is undergoing a transition from its reliance on fossil fuels to investing and building the infrastructure for a future powered by renewable energy.

Our mission is to lead the global transition to renewable energy.

Values

Our seven values unite our team in our common goal and guide us on how we develop renewable power resources all over the globe.



Our seven values



Safety:
is our Number 1 priority.



Innovation: has led us to deliver our projects cheaper than new fossil fuel plants in South Africa.



Respect:
is at the core of all our relationships.



Sustainability: we work with local partners to deliver indigenous, cost-effective energy solutions.



Entrepreneurship:
we are a dynamic team that can act quickly to scale projects.



Working Together: we are a diverse team which works together as one to deliver our vision.



Integrity across our markets:
we adhere to the same Code of Conduct and anti-bribery and corruption statements.

Mainstream Renewable Power: Who we are



Mainstream Renewable Power is a leading pure-play renewable energy company, with wind and solar assets across global markets, including Europe, Latin America, Africa and Asia-Pacific.

Mainstream is a developer of gigawatt-scale renewables platforms, across onshore wind, offshore wind, and solar power generation.

It has successfully delivered 6.5 GW+ of wind and solar generation assets to financial close-ready and has a global project portfolio of 20.8 GW, with 1.4 GW in operation and under construction.

In 2021, Aker Horizons acquired a majority stake in Mainstream, and in 2022, Mitsui & Co., Ltd. joined Aker Horizons as a long-term strategic investor.

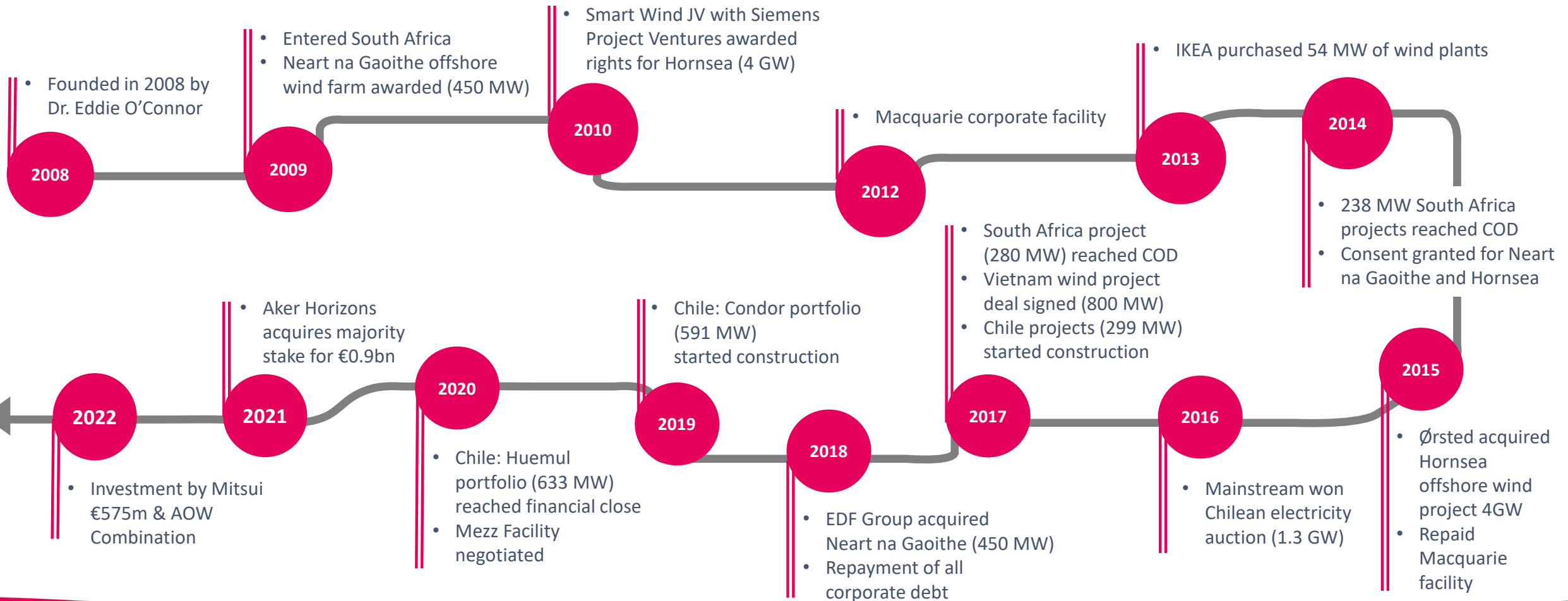
In 2022, Aker Offshore Wind was integrated into the Mainstream Group.

Mainstream has raised more than EUR 3.0 billion in project finance to date and employs more than 600 people across five continents.



Mainstream's growth journey

A leading global renewable energy company



Aker group with 180 years of industrial heritage



181 YEAR HISTORY IN BUILDING INDUSTRIAL FRONTRUNNERS



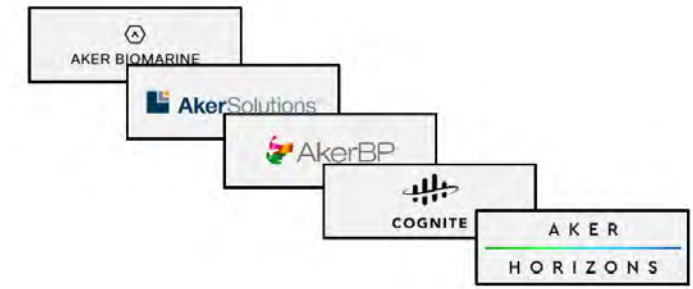
Norway's largest industry player

- NOK 75 bn net asset value
- ~31,000 employees globally

Continuous adaption and value creation is in our DNA

- ~27% annual return to shareholders since 2004
- ~13x increase in net asset value since 2004

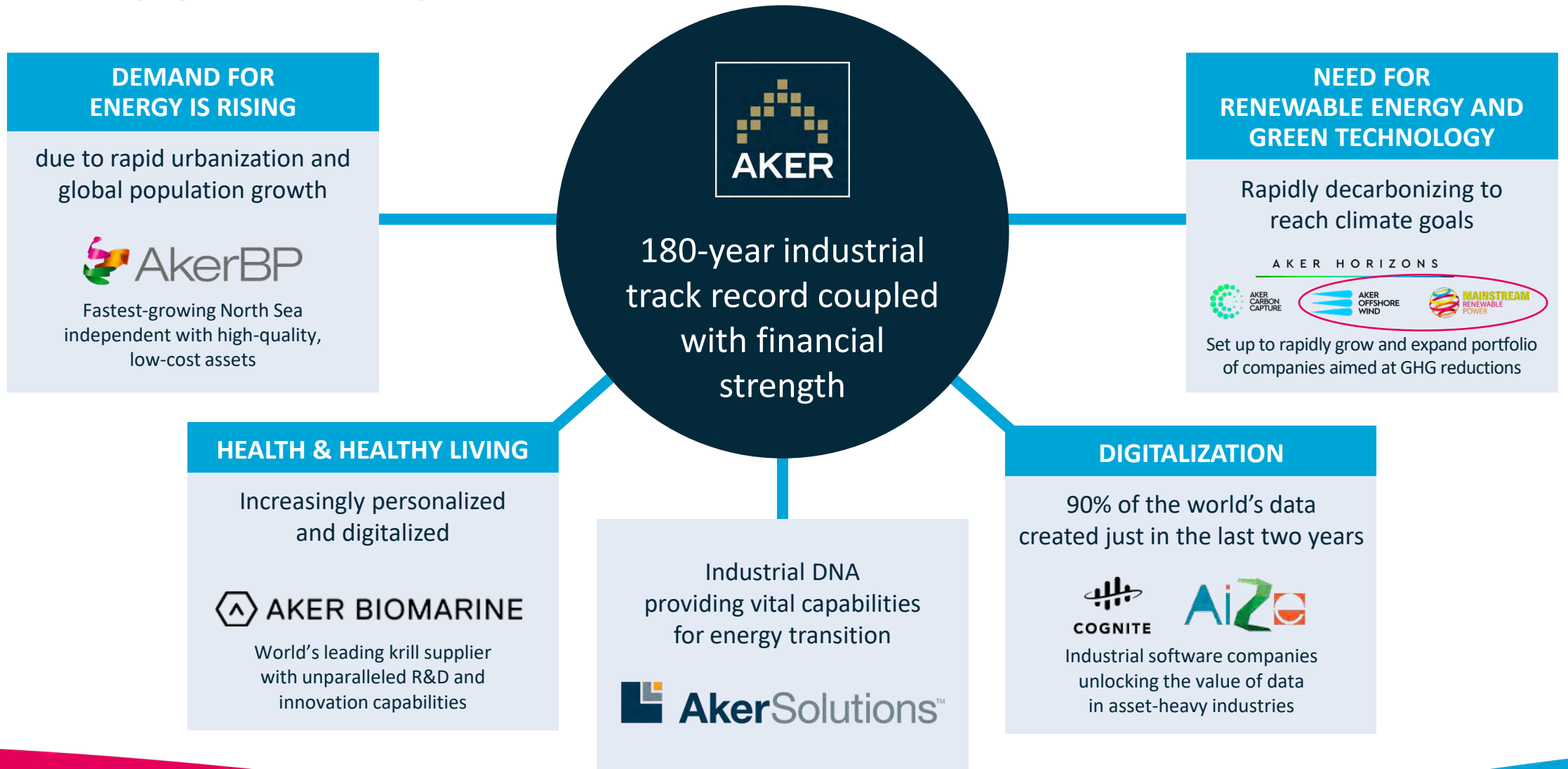
REPEATEDLY ADVANCING FRONTIERS IN COMPLEX BUSINESSES...



FOCUSING ON THE MOST PRESSING CHALLENGES; NOW EMPHASIS ON RENEWABLES AND DIGITAL

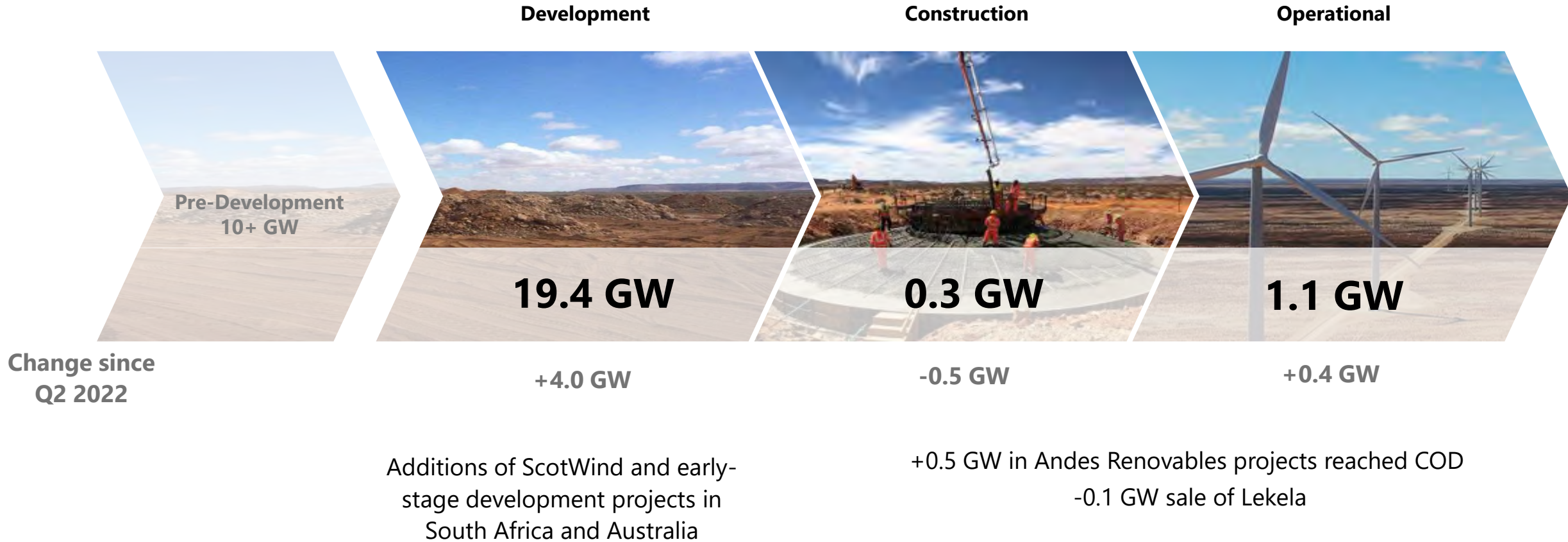


Aker group positioned to invest along global megatrends



20.8 GW net¹ global pipeline

Global portfolio of 31 GW net



Note: All figures shown at 30 June 2023.

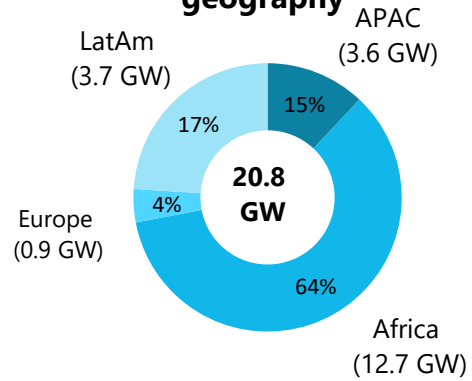
1. Net pipeline capacity combining development, construction and operational projects.

Global pipeline of wind and solar assets

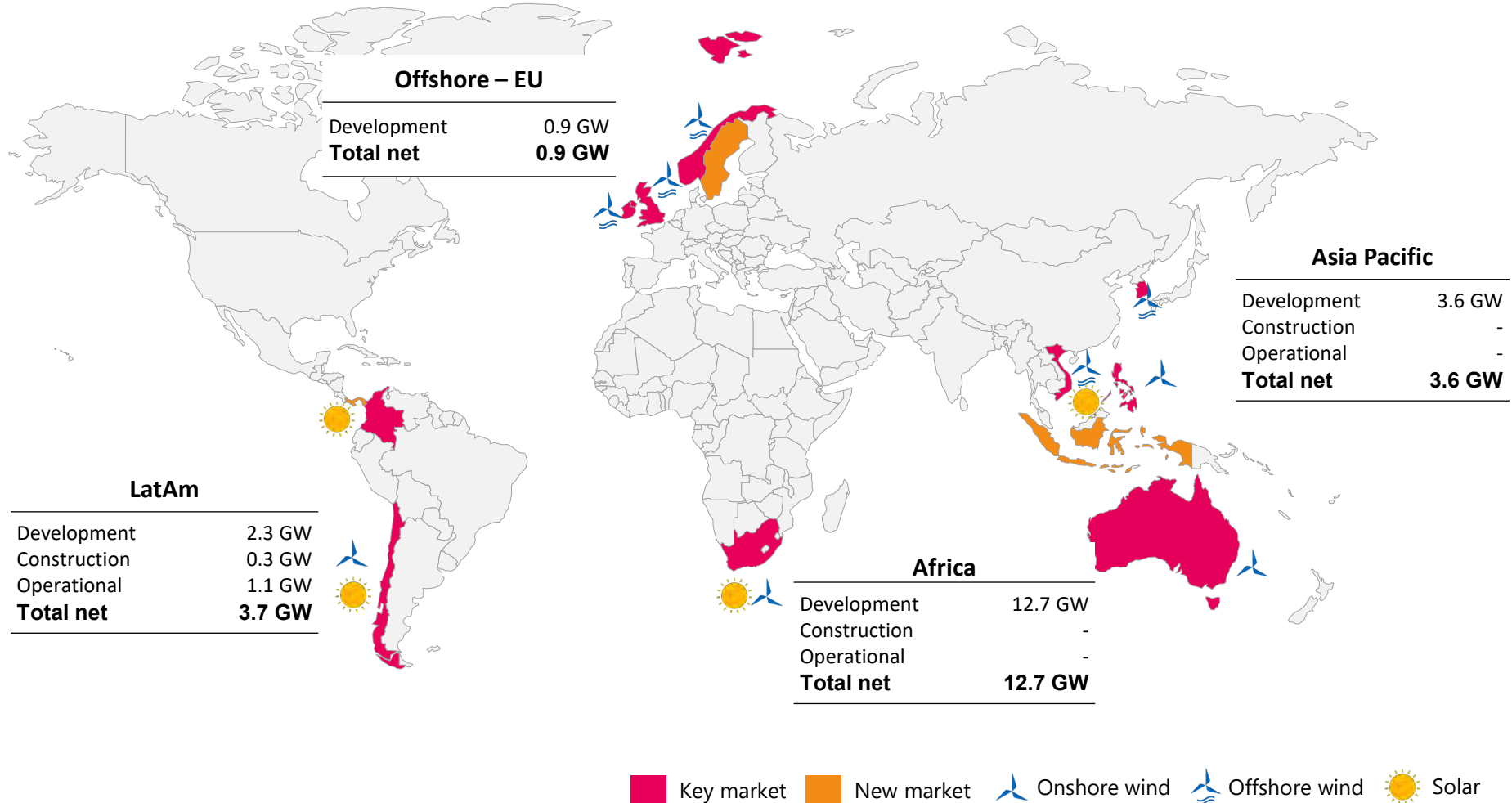
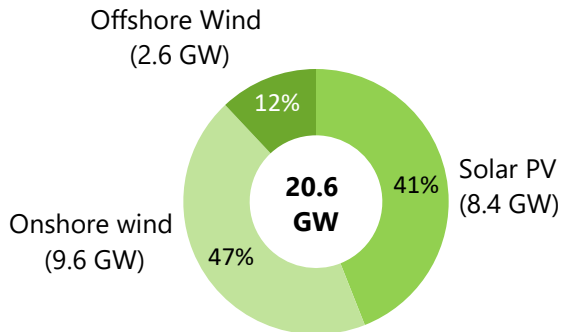


Pipeline reflects assets in development, construction and operational

Capacity distribution by geography



Capacity distribution by technology



■ Key market
 ■ New market
 ✪ Onshore wind
 ✪ Offshore wind
 ☀ Solar

Note: All figures shown on a net ownership basis at 30 June 2023

Our Global Development Standard (GDS)



World-class GDS guarantees exceptional project delivery through a robust system of processes

- > In-house project development system; aims to eliminate risk at every development stage.
- > Sets out the methods by which Mainstream develops, constructs and operates its global portfolio of projects to the highest standard.
- > Benchmarked against the IFC Environmental and Social Standards and the Equator Principles.
- > In line with the UN Guiding Principles and Human Rights and the World Bank Group Environmental, H&S Guidelines.

Local community engagement

- Identifying community needs
- Investing in communities
- Creating jobs

Industry foresight

- Entrepreneurial spirit with flexible and nimble strategy
- Unique market intelligence

Brand recognition

- Strong global reputation generates various leads / opportunities
- Renowned management team and award-winning projects

Global Development Standard

Financing capabilities

- Unique structuring capabilities enhance shareholder returns and ensure project bankability
- Strong global financing partners

Robust governance, controls and risk management

- Highest development principles
- Continuous project and portfolio auditing
- Rigorous independent RIC process

World-class technical capabilities

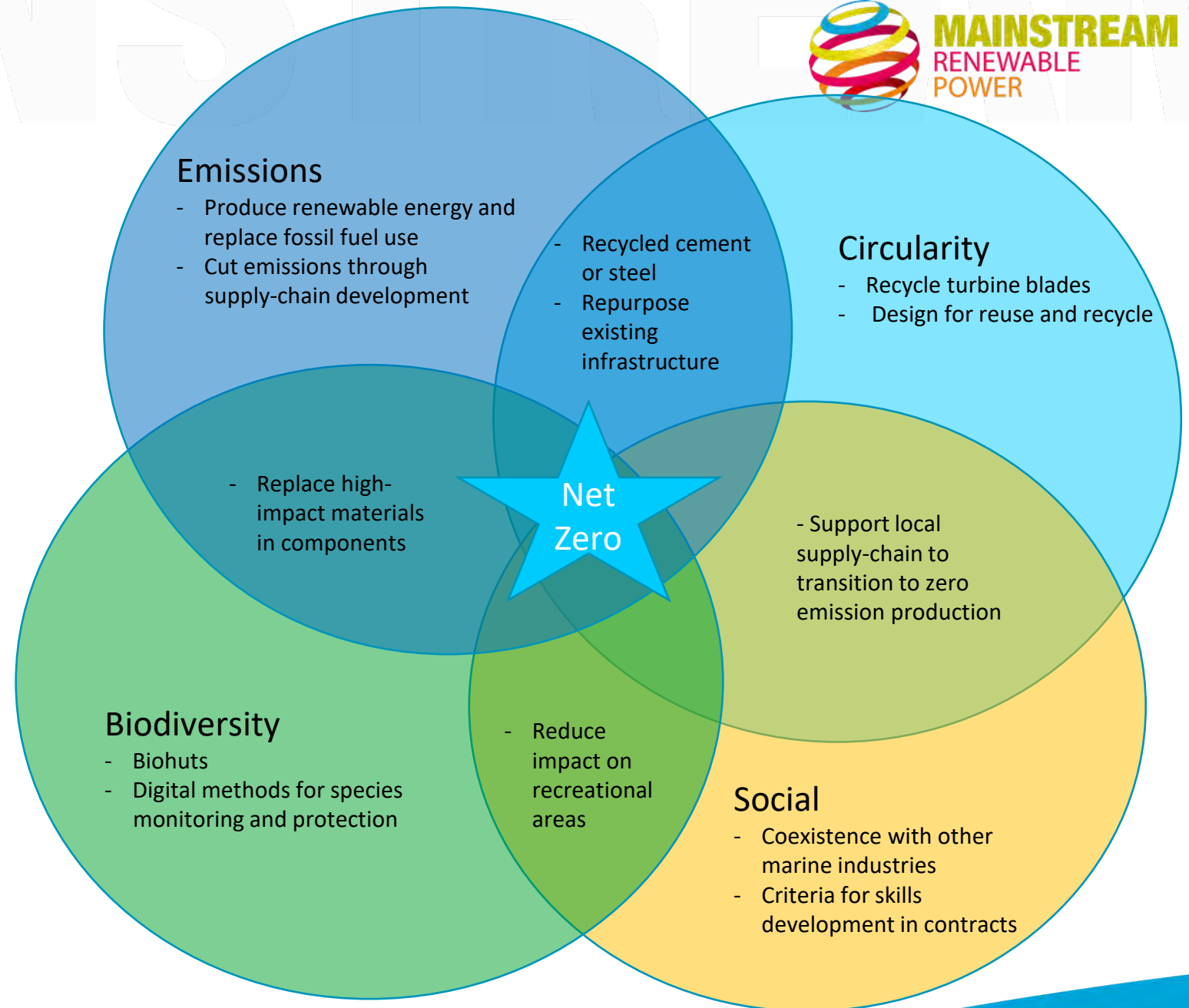
- Internal resource estimates minimise risk and maximise returns
- Proven ability to optimise turbine technology for site profiles

Sustainability



Can contribute to 5 important political priorities through integrating solutions that:

- ✓ Cut emissions
- ✓ Protect, preserve and restore biodiversity
- ✓ Secure coexistence with other users of the Sea
- ✓ Create green jobs
- ✓ Transition to a circular economy



Full set of in-house capabilities



Strong end-to-end in-house renewable project execution capabilities

Capability	Corporate and technical capabilities through full asset life	
Corporate	Corporate + Project Finance Tax and Financial Accounting	Marketing & Brand Human Resources
Project Support	SHEQ Power Sales PMO + Project Control	Commercial (M&A, Bidding) Legal Central Engineering
Market Entry / Origination	New Market Entry Due Diligence of Acquisitions	Constraints Mapping (GIS)
Development	Land Control Energy Yield Analysis Engineering	Environmental Studies, Planning and Consents Community Engagement Grid Connection
Construction	Procurement and Contracts Project Management	Construction Management Civil and Electrical Engineering
Operations	Commissioning and Handover Operations and Maintenance	Asset Management Power Plant Optimisation

Professional Disciplines



> Chile

- Andes Renovables platform 1.3 GW solar and onshore wind projects.
 - Construction and commissioning of all Condor projects (591 MW) completed.
 - Alena wind (86 MW) reached commercial operations Dec. 21.
 - Rio Escondido, Tchamma and Cerro Tigre received COD
 - Huemul (630 MW) and Copihue (148.5 MW) on track to complete construction in 2022 – 23.

Phase	Portfolio	Financial Close	MW Onshore Wind	MW Solar PV
1	Condor	November 2019	3 assets (446 MW)	1 asset (145 MW)
2	Huemul	September 2020	3 assets (425 MW)	2 assets (205 MW)
3	Copihue	June 2021	1 asset (148.5 MW)	-

- Nazca Renovables hybrid renewables platform - 1 GW launched in 2021 with 6 assets
- Aela Energia platform 332 MW
 - Established in 2013 through a joint venture with Actis.
 - Won 332 MW (3 onshore wind assets) through the National Energy commission auctions in 2015 – 16.
 - Aela Energia platform sold in 2022.

> Colombia

- Power purchase agreement signed for 100 MW solar project.
- Progressing further development opportunities.

LATAM	
Development	2.3 GW
Construction	0.3 GW
Operational	1.1 GW
Total net	3.7 GW



■ Key market
 ■ New market
 ✈ Onshore wind
 ☀ Offshore wind

Note: All figures shown on a net ownership basis at 30 June 2023

Mainstream Africa



- > Mainstream has been advancing a just energy transition in Africa since 2009, as a developer, constructor and operator of wind and solar assets.
 - Our collaborations with global and local partners have added more than 1.2 GW of clean, reliable generating capacity to the continent's energy mix in Egypt, Senegal and South Africa.
- > South Africa
 - Entered market in 2009.
 - Mainstream is the leading renewable energy company in South Africa following its Round 5 win (1.27 GW).
 - Total 2.1 GW won in government bid auctions since 2011.
- > Pan-African platform Lekela Power
 - Mainstream and emerging markets investment firm Actis established joint venture company Lekela Power in 2014.
 - Lekela has over 1 GW of wind power under construction or in operation.
 - Mainstream operates all of Lekela's operational projects in South Africa totalling 610 MW across 5 wind farms.
 - Lekela Power was sold in 2023.

Africa	
Development	12.7 GW
Construction	-
Operational	-
Total net	12.7 GW



Note: All figures shown on a net ownership basis at 30 June 2023

TAIBA N'DIAYE WIND FARM - SENEGAL



- > The Taiba N'Diaye wind farm in west Africa will provide a 15% increase in electricity generation capacity for the country, providing power for over 2 million people. Built near the Taiba N'Diaye community, the wind farm created 600 employment opportunities during the peak of its construction phase.
- > The project reached financial close in July 2018 and construction commenced with Vestas, supplying 46 of its 3.45 MW turbines, and contracted for the EPC works. In February 2020, the first phase of the wind farm, 50 MW was officially inaugurated by the Senegalese Head of State, His Excellency Macky Sall. In 2021, the project reached full commercial operation.

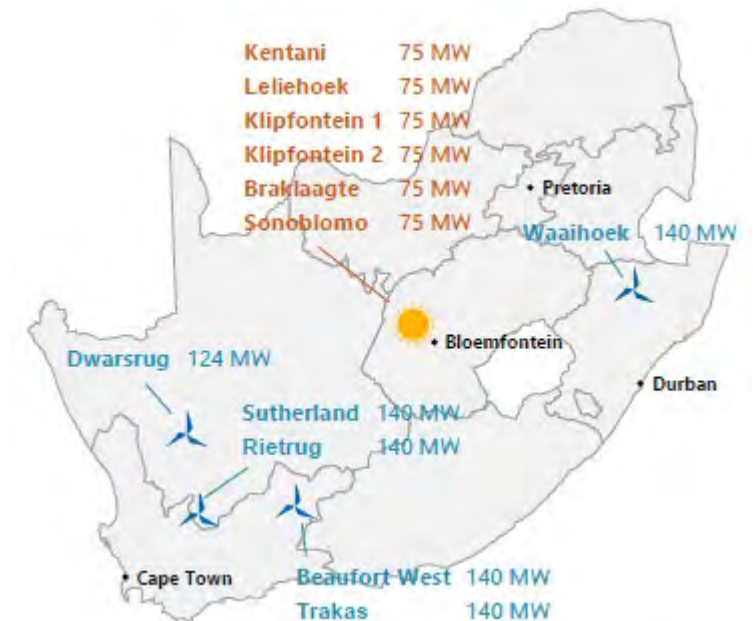


South Africa – Round 5



- > Mainstream and consortium partners awarded 1.27 GW in Round 5 auctions
- > The wind projects are spread across four locations whilst the solar PV projects are bundled together in Tokologo, Free State.

Asset	Technology	Capacity (MW)	Province	Municipality
Dwarsrug	Wind	124	Northern Cape	Hantam
Beaufort West	Wind	140	Western Cape	Prince Alfred
Trakas	Wind	140	Western Cape	Prince Alfred
Waihoek	Wind	140	Kwazulu-Natal	Madlangeni
Sutherland	Wind	140	Northern Cape	Karoo Hoogland & Laingsburg
Rietrug	Wind	140	Northern Cape	Karoo Hoogland
Kentani	Solar PV	75	Free State	Tokologo
Leliehoek	Solar PV	75	Free State	Tokologo
Klipfontein	Solar PV	75	Free State	Tokologo
Klipfontein 2	Solar PV	75	Free State	Tokologo
Braklaagte	Solar PV	75	Free State	Tokologo
Sonoblomo	Solar PV	75	Free State	Tokologo
Total MW		1,274		



> Vietnam

- 2.3 GW gross pipeline of solar and offshore wind projects.
- Offshore wind projects
 - Flagship 1.4 GW Phu Cuong Soc Trang offshore wind farm
 - Set to become largest offshore wind farm in South-East Asia when built
 - 200 MW Phase 1 received Investment Registration Certificate.
 - 500 MW Ben Tre project in development with local company, AIT.
- Solar PV project (405 MW)

> Philippines

- Late-stage development – 90 MW onshore wind
- Exploring development opportunities

> Australia

- Pipeline of wind projects
- Exploring onshore and offshore wind opportunities

> Indonesia

- Office in place and exploring development opportunities

Asia Pacific

Development	3.6 GW
Construction	-
Operational	-
Total net	3.6 GW



■ Key market ■ New market 🌬 Onshore wind 🌊 Offshore wind ☀

Note: All figures shown on a net ownership basis at 30 June 2023

Mainstream + Aker Offshore Wind



Differentiators that make the combined entity a global offshore wind frontrunner



Agility & Robustness

- > Drive a fast-paced and agile project development portfolio
- > Streamlining early market development activities
- > Increase digitalisation, innovation and enhance safety



Capabilities & Experience

- > Deep complementary capabilities combining technical, development and execution track record
- > Increased and aligned inhouse expertise across the project lifecycle to drive down LCOE



Footprint & Scale

- > Complementary geographical footprint with increased scale adding 2.1 GW of projects
- > Harmonising projects, unlocking significant synergies and project pipeline



Partners

- > Leveraging combined global network
- > Broadening supply chain and partnership relationships
- > Strengthening policy and government affairs efforts globally

Strategy for the offshore combination



Source, develop, and operate offshore wind projects



Diversify portfolio across fixed and floating wind with a growth mix across greenfield, acquisition and partnerships



World-class development & industrialisation capabilities through Aker family and Mainstream's renewables track record



Target early-mover strategy and experience in emerging markets to harvest value creation opportunities and build a strong track record as the industry matures



Maximise benefit of preferential rights to bankable **floating foundation technology** through ownership in Principle Power



Accelerate market entry, drive local value creation, de-risk development and execution phases through partnerships

Global Offshore Wind Projects

4.9 GW in active development



Arven 1.8 GW

Shetland Islands, Scotland

- > Appointed preferred bidder by Crown Estate Scotland
- > Developed in partnership with Ocean Winds.
- > tCO₂e savings each year: 3 million

Phu Cuong Soc Trang 1.4 GW

Soc Trang Province, Vietnam

- > Will be the largest wind farm in SE Asia when complete
- > 1.6 million homes powered each year
- > tCO₂e savings each year: 1.8 million

KF Wind 1.2 GW

Ulsan, South Korea

- > Phase 1: 500 MW, generating from 2027
- > Site location: 80 km from the coast
- > Developed in partnership with Ocean Winds and local partner, Kumyang Co.

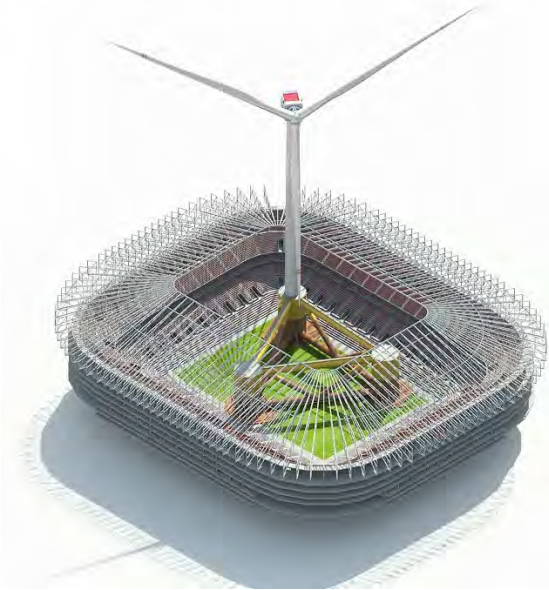


Ben Tre 500 MW

Ben Tre Province, Vietnam

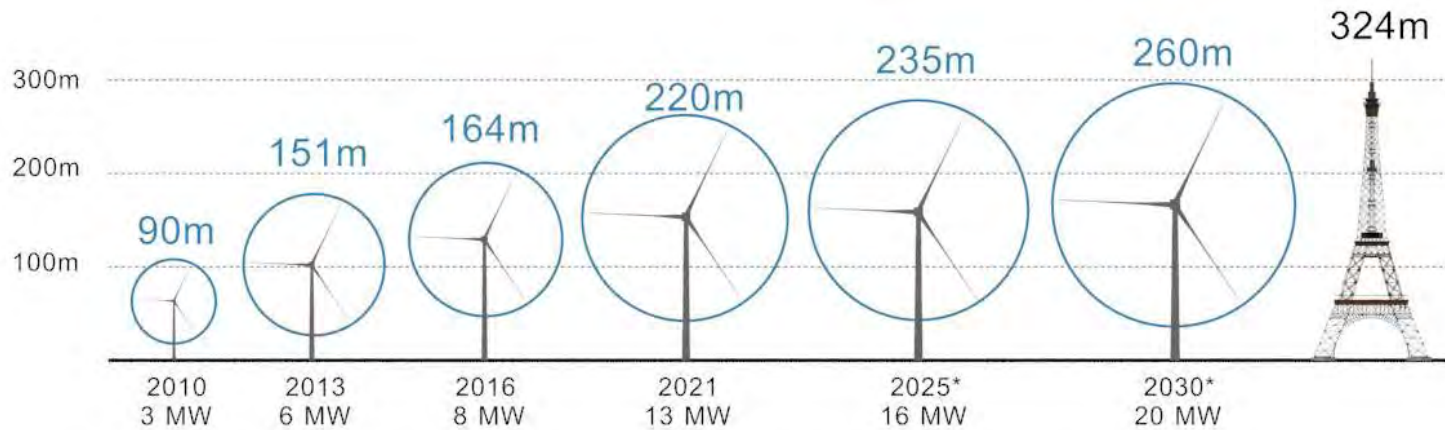
- > Formed joint venture with AIT in Nov 2020 to co-develop the project
- > Received site survey license
- > Completed feasibility study

Wind Turbine

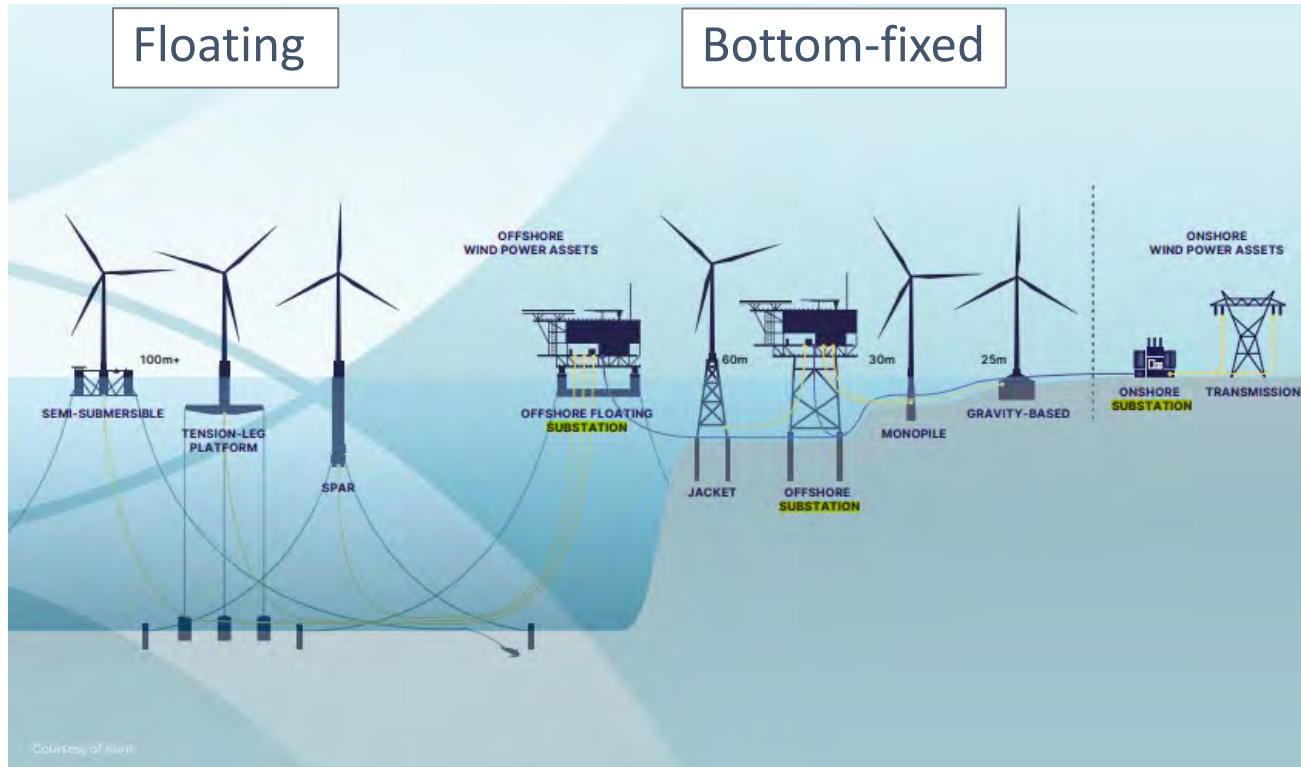


AOW's office at the 2nd floor in the O8 building at Fornebu

- > The latest 15MW offshore wind turbines are huge!
- > A 15MW turbine can power your home for a year in just one hour!
- > The trend is growing



Foundations



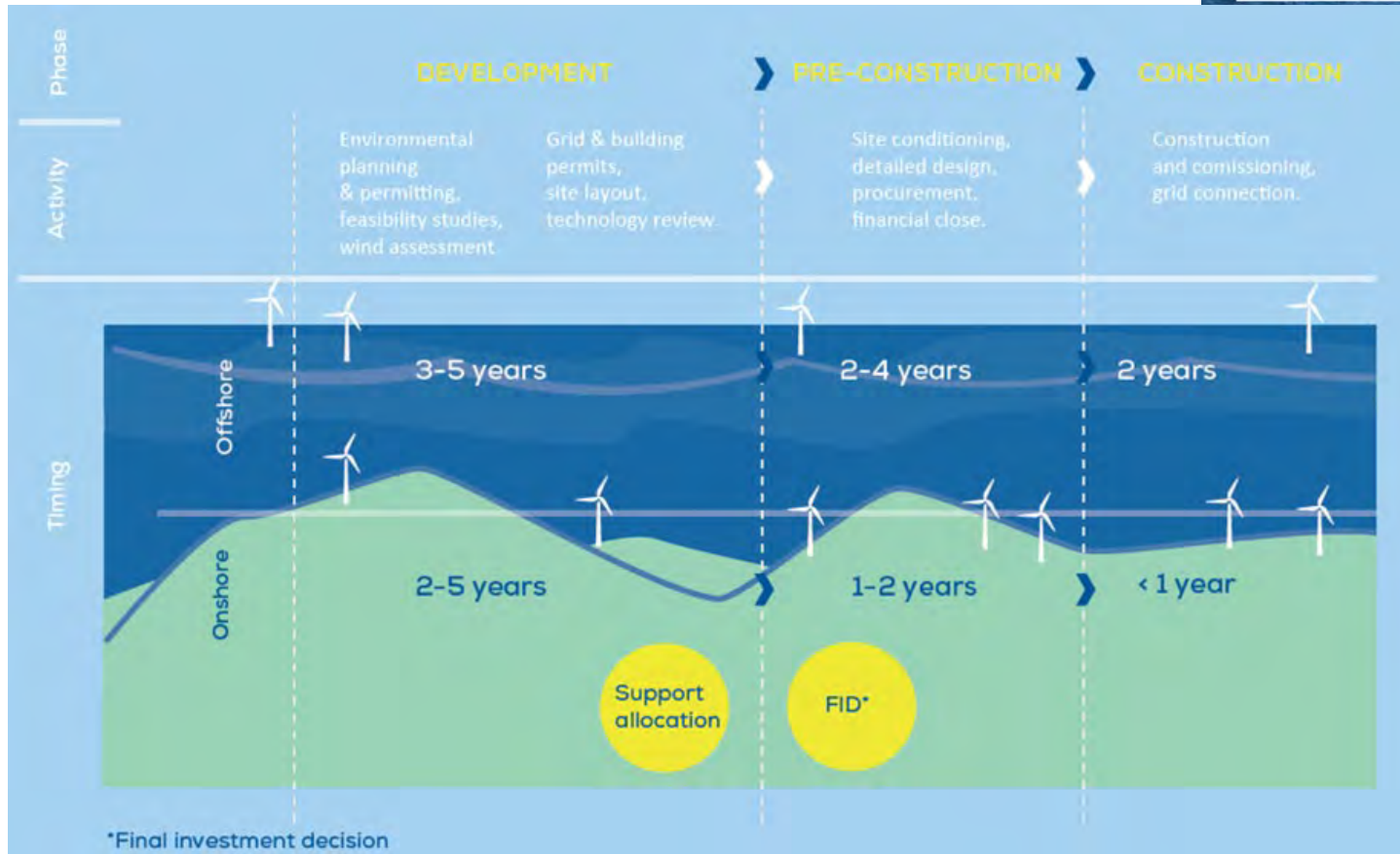
- > Purpose of foundations:
 - Maximise output and availability
 - Stable and good motion characteristics for WTG
 - Robust
- > Floating and bottom-fixed concepts
- > Made of steel or concrete



**AKER
OFFSHORE
WIND**



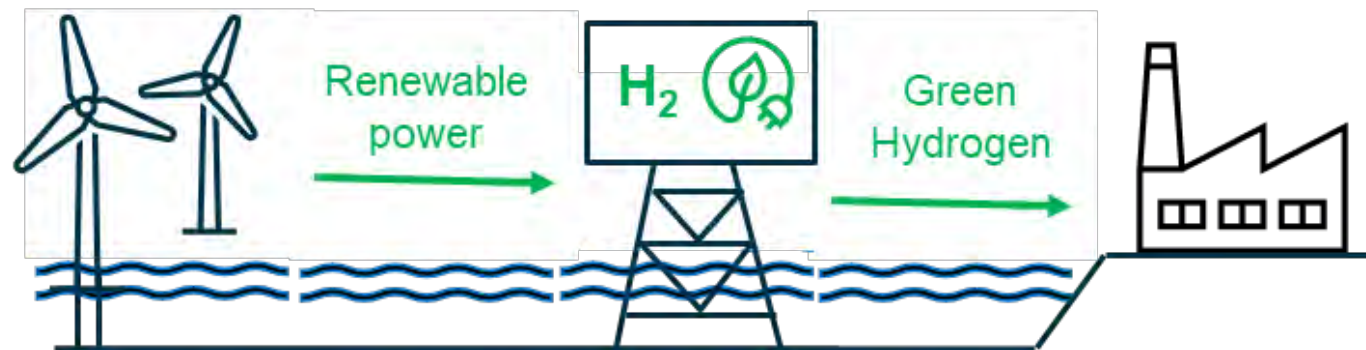
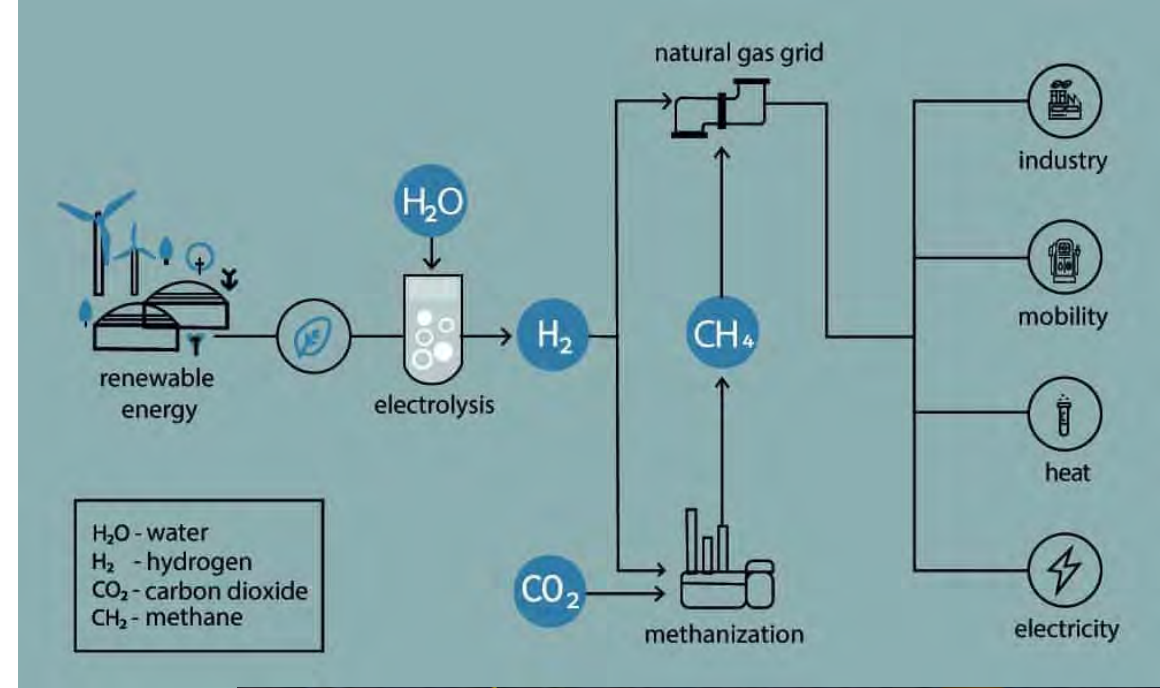
Timelines



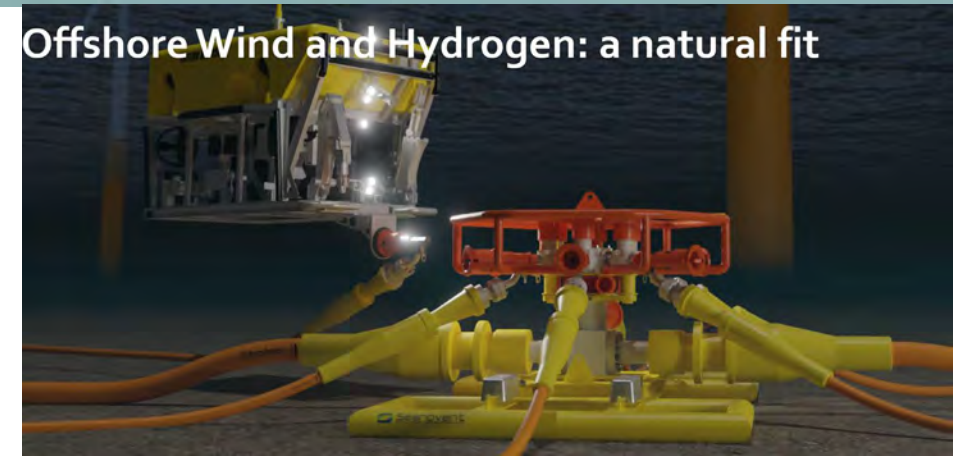
Power-to-X

- Centralized H₂ production on H₂ Substation
- Or
- Decentralized H₂ production on WTG locations
- Transport via pipeline, or
- By vessels into the load centres

- No export cable necessary – Transmission System Operator relief



Offshore Wind and Hydrogen: a natural fit



Power 2 X



Mainstream's competitive advantage in markets with excellent resources

- > Chile has a stated ambition to produce the most cost-efficient green hydrogen in the world by 2030 and to be one of the world's top three exporters by 2040.
- > South Africa has natural advantages with renewable energy resources, land and raw materials for hydrogen economy.
- > Mainstream is pursuing large scale development of renewable energy pipeline in world's best regions for LCOE1 ; Chile and South Africa among leading contenders.
- > Mainstream is well-positioned to capitalise on opportunities through large-scale infrastructure development capabilities, extensive local competence, high-quality portfolio and established relationships.



MAINSTREAM RENEWABLE



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POWER

Mainstream Renewable Power

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