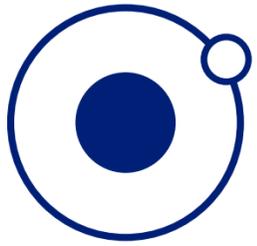


GREEN YACHT AS

Investor presentation

World class Norwegian maritime competence
providing zero-emission yachting

Summary



Our vision is to develop the market's first hydrogen energy system suitable for high-speed vessels. In reaching our ambitions, we will utilise Norwegian research, technology and maritime competence and demonstrate the technology via our Hydrogen Viking - 95 feet long yacht.

Hydrogen Viking will position our company at the forefront of the innovation within the maritime sector and the technology will be replicated towards new and retrofit vessels across maritime sectors. As of today, the project has reached significant media attention as well as interest from partners such as [HYON](#), [CMR Prototech](#), [Norwegian Electric Systems](#), [Greenstat](#), [Servogear](#), [Gexcon](#) and others. The project has also received support from the Hordaland County Council and, enabling us to develop a thorough conceptual study for the energy system.

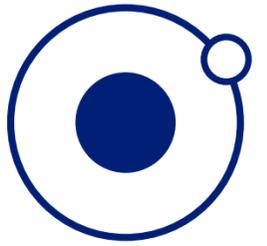
To accel the project, we seek external financing to build the demonstration system onboard the yacht. This will be the necessary platform for showcasing a groundbreaking zero emission solution that can be scaled world wide.



Our solution addresses the following UN Sustainable Goals



Global emissions



~ 15 grams of CO2
per tonne/km



~ 12 grams of CO2
per tonne/km



~ 9 grams of CO2
per tonne/km



~ 6 grams of CO2
per tonne/km

6 million

There are 6 million vessels used in European waters, both by professional and private users.

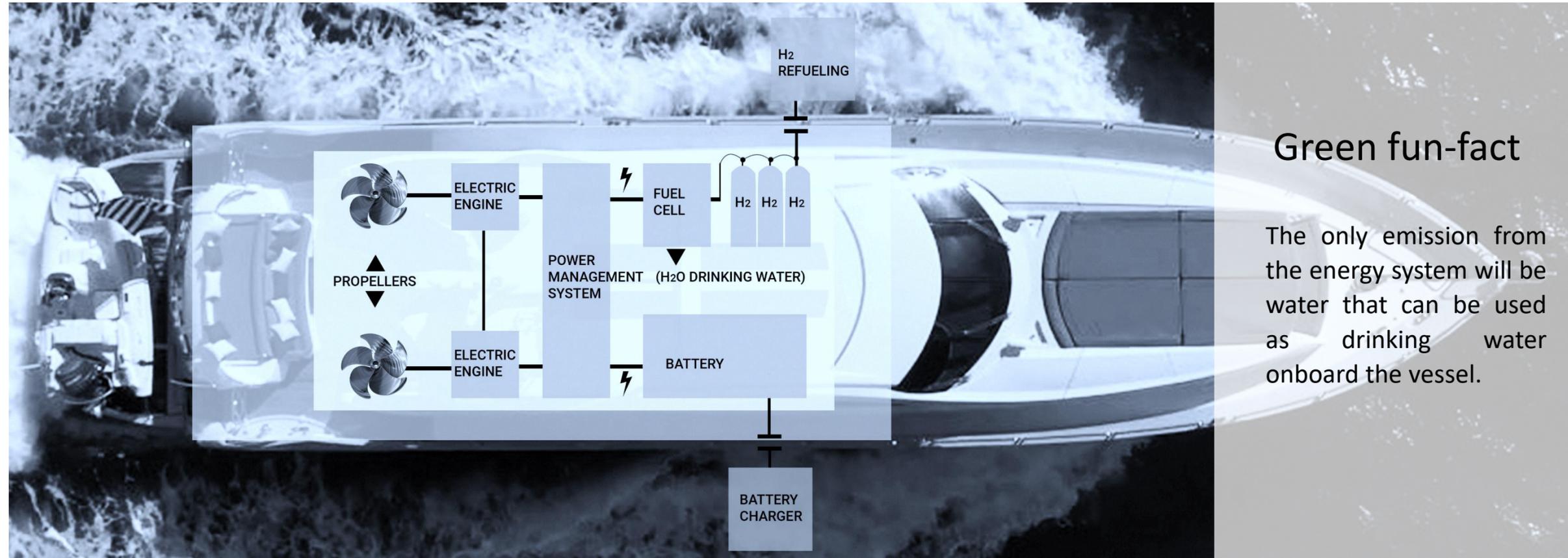
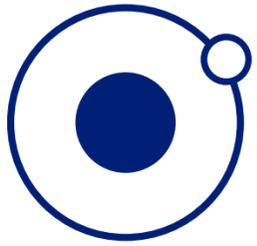
1 million

In Norway only, one million vessels generate 1.3 million tons of CO2 annually.

55%

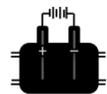
High-speed vessels are responsible for 55% of greenhouse gas emissions.

Solution



Green fun-fact

The only emission from the energy system will be water that can be used as drinking water onboard the vessel.



Hydrogen tanks storing compressed hydrogen will be placed safely onboard. Refueling systems will be provided as a part of the solution.



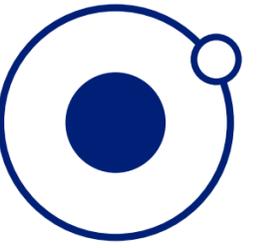
Fuel cell modules and high capacity batteries will provide the necessary electric power. Batteries provide acceleration and the fuel cell/hydrogen tanks provide range.



A well proven Power Management System (PMS) will be installed to handle the different power sources.



State-of-the-art electric engines are used to propel the vessel silently through the water.



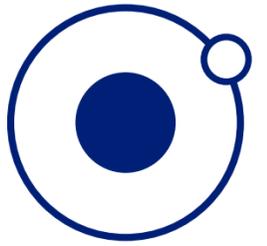
The pilot vessel

The world's first zero-emission
high-speed luxury yacht.

Sunseeker 95 Predator “Hydrogen Viking”



Press coverage



<<Hydrogen Viking>> bremses av manglende finans

Av Vibeke Blich



Verdens første hydrogen superyacht skulle etter planen være sjøklar i 2019, men manglende finansiering bremses prosjektet.

Beløpet som trengs for å realisere prosjektet er ca 40 MNOK hvor man regner med å få opp mot



Satser farsarven på å gjøre Gaddafis yacht grønn

Av MATS MYRØDAL 18. mars 2017, kl. 16:26

– Fokuset vårt er utelukkende på hydrogen, men det er ikke til å legge skjul på at det er litt spennende at Gaddafi-familien tidligere har brukt båten, sier Per Erik Berger (45).



DEL På Dokken ligger en luksusyacht med en spesiell historie og kanskje enda mer spesiell fremtid.

Fra 2005 til 2009 cruiset Libyas nådeløse diktator Muammar al-Qaddafi og familien rundt i

SYSLA GRØNN

FORNYBAR ENERGI KLIMA MENINGER KUNNSKAPSBANK



Daglig leder Per Erik og broren Guillermo Berger i Pagi Maritime sammen med Vegard Frihammer (til å., daglig leder i Greenstat. Foto: Orjan Deliz

De vil bygge om Gaddafis luksusyacht til hydrogen drift

– Vi vil forrest mulig ha bort Gaddafi-koblingen. Det gjør vi ved å skifte navn på båten til «Hydrogen Viking», sier Vegard Frihammer, daglig leder i

YACHT MED BRENSSELCELLE - HYDROGEN VIKING

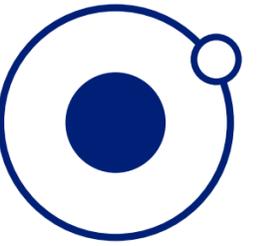
Eks-diktatorens luksusyacht blir verdens første på hydrogen

Gaddafis yacht pimpes i Bergen.



Noen av menneskene bak Hydrogen Viking, båten i bakgrunnen. F.v: Per Erik Berger, daglig leder i Pagi Maritime, Vegard Frihammer, daglig leder i Greenstat, Tjolve Svendsen, forsker ved Prototech og Bernt Skjæle, administrerende direktør i Prototech (til høyre). Foto: Olav von Munthe

Business case



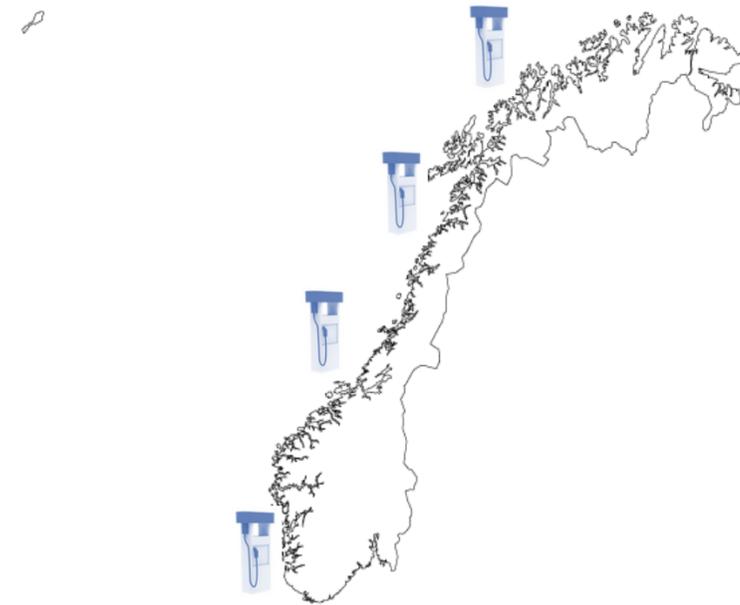
1

Demonstration of concept and energy system via the 95 feet long high-speed vessel Hydrogen Viking.



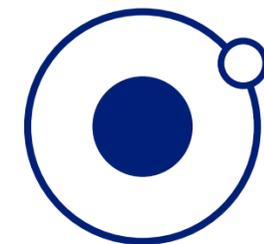
2

Develop a preliminary infrastructure at strategic marinas in Norway. Retrofit in yachts and aquaculture vessels.



3

Deploy a nation-wide infrastructure for hydrogen production and distribution. Eventually, Green Yacht AS with partners, aim to become a world leading supplier of hydrogen/battery systems for high speed vessels. Selling onboard systems and owning the infrastructure.



Market-use potential

Our technology belongs to the global boat market, which in 2018 was worth 25.6 bEUR and is forecasted to reach 52.6 bEUR by 2026. The growth of alternative propulsion systems in this market will be spurred among others by governmental measures to reach low- or zero-emission shipping. Already today, 85% of vessel operators invest in technology helping to reduce CO2 emissions by 2050.



1,700

The Norwegian-controlled fleet consists of around 1,700 vessels. This includes everything from fishing boats, pleasure yachts and ferries to deep-sea cargo transport, fuel transport and ocean exploration.



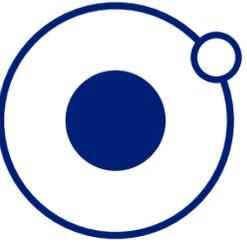
6,000

Norway has an annual production of approx. 6,000 vessels for the aquaculture sector. A minor part of the vessels are kept in Norway, as most of the production is exported.



2-6,000

New boat builds are planned to substitute dismantled old boats (2,000-6,000 per year in Europe) and will be spurred by the stupendously growing global boat market.



Customer segments

Ship builders

DAMEN

NAVAL
GROUP

FINCANTIERI
The sea ahead



LÜRSSEN


MEYER WERFT
PAPENBURG 1795

 **Navantia**

**CHANTIERS
DE L'ATLANTIQUE**



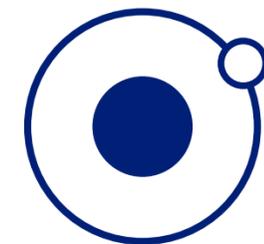
Vessel operators


**Fred. Olsen
Cruise Lines**


WÄRTSILÄ



WILSON
• THE PREFERRED CARRIER • 



Development

We will develop & commercialise the energy system from Q1 2021 via our partners' networks.

HYON *PEGI Maritime* GREENSTAT *cmr* Prototech  norwegian electric systems

The total project cost for the pilot vessel will be in the range of 40 mNOK. Phase one related to basic infrastructure has a financial requirement of approx. 10-15 mNOK, while the energy system will require 25-30 mNOK. Our plan is to combine soft- and hard-funding options.

Soft-funding

SkatteFUNN Innovation Norway Enova
Sustainable Energy Catapult

Hard-funding

Private investors

Collaborators



Timeline

Funding/financing

Q2 2020

Engineering /procurement

Q3/4 2020

Installation and testing

Q4 2020

Interior design

Q1 2021

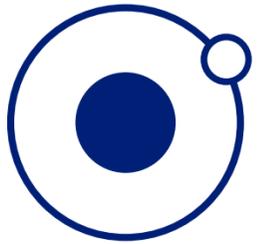
Commercial launch - Norway

Q2 2021

Commercial launch - Europe

Q1-2 2022

Development risks and mitigation



Risk



This is the first-time hydrogen is used to propel a fast-moving boat and it will therefore be a challenge to adapt and calculate the right parameters to achieve optimum power.



Hydrogen is highly flammable, and for safety reasons, tanks must be placed in a way that hydrogen is led away from the boat. The location itself will have a major impact on the boat's progress and energy consumption.



Most other planned hydrogen projects are tailored to pre-adapted hulls. As Hydrogen Viking is an existing boat to be rebuilt and adapted to hydrogen technology, fuel cells, batteries and other equipment must be installed so that the boat's safety and stability are ensured.

Mitigation



Optimal results will be ensured by using experience from the automotive industry, partner maritime expertise, as well as frequent and detailed tests and measurements during the project.



Approvals will be taken care of through the use of companies with expertise in the certification of vessels.



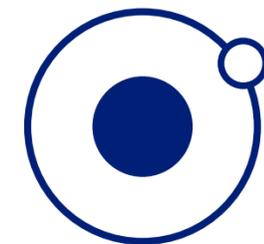
Calculations will be developed with a help of industry experts. Boat architecture and engineering will be consulted with maritime manufacturers.

Competing solutions*



	Green Yacht	Golden Gate Zero Emission Marine	Evoy	Diana Yacht
Combination of H2 and a power battery	H2 + EL	H2 + EL	EL	H2 + Diesel
Suitability for high- speed vessels	✓	✗	✓	✗
Maximum speed	35+ knots	22 knots	55 knots	15 knots
Range at 30 knots ~	100 Nm	100 Nm	25 Nm	--
Electric engine power	3 MW	600 kW	350 kW	600 kW
Zero emission	✓	✓	✓	✗

*Showing a few of many concepts that are being developed around the world. A full-scale demonstration of a H2/EL system is yet not demonstrated.



Technical Team

Christian Erichsen
Project manager
Green Yacht AS

Experience:
Entrepreneur,
captain, Navy
projects

Tomas Fiksdal
Chief Project Manager
Greenstat

Experience:
Hydrogen production,
energy systems

Vidar Wallestad
Yacht expert
Consultant

Experience:
Experienced yacht
builder

Tjalve Svendsen
Researcher
CMR Prototech

Experience:
Hydrogen

Partners

CMR Prototech

Experience:
Fuel cell systems

Greenstat

Experience:
Hydrogen production,
project management

Norwegian Electric
System

Experience:
Electric systems,
Power management
systems

Corvus Energy

Experience:
Battery systems

HYON

Experience:
Hydrogen systems,
refueling solutions

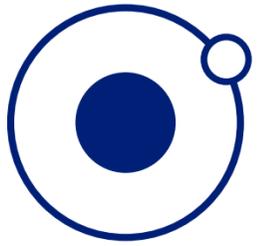
CMR Gexcon

Experience:
Safety

Servogear

Experience:
Propellers/gear

Board and network



Board



Vegard Frihammer –
Chairman of the
board

Experience:
CEO of Greenstat,
Chairman Norwegian
Hydrogen Association,
Business development



Bernt Skeie-
Board member

Experience:
CEO of Prototech,
Economics, Chairman of
Greenstat, fuel cell and
hydrogen competence



Guillermo Berger-
Board Member

Experience:
Investor, Manager
at Bravida, maritime
experience

Network / clusters



Web site:

<https://maritimecleantech.no/>



Web site:

<http://elbatforeningen.no/>



Web site:

<https://www.oceanhywaycluster.no/>



Web site:

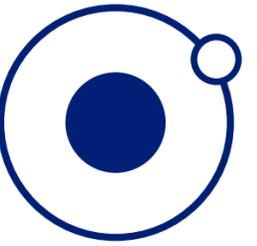
<https://sustainableenergy.no/>



Web site:

<https://www.hydrogen.no/>

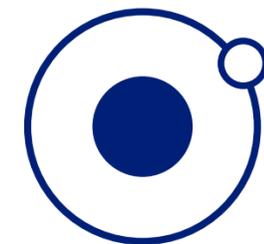
Financial forecast



	2020				Year	2021				Year	2022				Year	2023				Year	
In 1,000 NOK	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		
Revenues / Cash-in																					
Soft-funding				10,000	10,000		15,000			15,000											
Retrofit yacht									10,000	10,000	30,000	30,000	30,000	30,000	120,000	75,000	75,000	75,000	75,000	75,000	300,000
Retrofit other											10,000	10,000	10,000	10,000	40,000	20,000	20,000	20,000	20,000	20,000	80,000
Total				10,000	10,000		15,000		10,000	25,000	40,000	40,000	40,000	40,000	160,000	95,000	95,000	95,000	95,000	95,000	380,000

	2020				Year	2021				Year	2022				Year	2023				Year	
In 1,000 NOK	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4		
Salar. inc. overhead		250	250	250	750	250	250	250	250	1,000	500	500	500	500	2,000	1,000	1,000	1,000	1,000	1,000	4,000
Retrofit yacht				15,000	15,000		25,000		9,000	34,000	27,000	27,000	27,000	27,000	108,000	67,500	67,500	67,500	67,500	67,500	270,000
Retrofit other											9,000	9,000	9,000	9,000	36,000	18,000	18,000	18,000	18,000	18,000	72,000
Purchased services		250	250	250	750	250	250	250	250	1,000	400	400	400	400	1,600	500	500	500	500	500	2,000
Overhead		50	50	50	150	100	100	100	100	400	150	150	150	150	600	200	200	200	200	200	800
Other		50	50	50	150	100	100	100	100	400	150	150	150	150	600	200	200	200	200	200	800
Total		600	600	15,600	16,800	700	25,700	700	9,700	36,800	37,200	37,200	37,200	37,200	148,800	87,400	87,400	87,400	87,400	87,400	349,600

Grand total		-600	-600	-5,600	-6,800	-700	-10,700	-700	+300	-11,800	2,800	2,800	2,800	2,800	11,200	7,600	7,600	7,600	7,600	7,600	30,400
Cumulative total		-600	-1,200	-6,800	-6,800	-7,500	-18,200	-18,900	-18,600	-18,600	-15,800	-13,000	-10,200	-7,400	-7,400	+200	+7,800	+15,400	+23,000	+23,000	+23,000



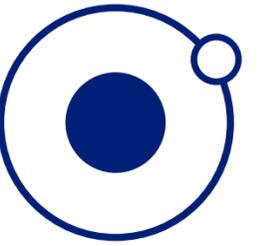
Investor

Green Yacht AS seeks to raise between 3 mNOK and 6 mNOK through a private placement. The funds will be used to upgrade the pilot vessel with basic infrastructure, such as propellers, electric engines, power management system, control system etc. The total cost of this upgrade is estimated to be around 10-15 mNOK. The remaining capital will be bank loans and soft funding.

Existing owners:

<i>Peb AS (Per Erik Berger)</i>	<i>533 333 shares 33.3 %</i>
<i>Gibe AS (Guillermo Berger)</i>	<i>533 333 shares 33.3 %</i>
<i>Greenstat AS</i>	<i>266 667 shares 16.67 %</i>
<i>Prototech AS</i>	<i>266 667 shares 16.67 %</i>

	Low	High
Number of shares in the emission	800 000	1 600 000
Price per share	3,75 NOK	3,75 NOK
Raised Capital	3 mNOK	6 mNOK
Dilution	33 %	50 %
Pre-money evaluation	6 mNOK	6 mNOK
Post-money evaluation	9 mNOK	12 mNOK



GREEN YACHT AS



World class Norwegian maritime competence
providing zero-emission yachting