

blueye

BLUEYE ROBOTICS

Your eyes below the surface

The STORY

- Founded by Erik Dyrkoren, Martin Ludvigsen, Christine Spiten and Erik Haugane in 2015.
- A passionate team consisting of 30 dedicated experts within areas ranging from software and underwater robotics to business development
- The Blueye Pioneer underwater drone is our launch product – shipping to customers since 2018

The beginning

Best idea Prize at Top Manager's conference 2014:
"Small, inexpensive ROV's to conquer the Ocean Space"

Erik Dyrkoren brings the idea forward

NTNU Marine / AMOS student projects

Developing small ROVs for various use

Investigating various price reduction options

Entrepreneur and Investor Erik Haugane

believes small and inexpensive underwater drones will be a massive consumer market hit

*The three parties joined forces and started
"BluEye Robotics AS" June 2015*



Gründer på ny: Etter at Erik Haugane ga seg som direktør for Siva i desember i fjor har tiden gått med på å utvikle konkrete forretningsideer som nå er i ferd med å bli realisert i form av fire nye og spennende selskaper. Et språk er på vei ut i Haugane for endret toneart for forretnings- og oppstartbedrifter. Foto: O.J. LARSEN/NTNU

Klekket ut nye bedrifter

Den tidligere sjefen og gründeren for oljeselskapet Det norske, Erik Haugane, er klar med fire nye forretningsideer.

deressansjoner. Haugane ser for seg en drone med samme størrelse og funksjonalitet som de mest i dag brukes i lufta. – Den ikke må være for dyr, og alle må kunne styre den. Barn og voksne skal kunne bruke den til å ta bilder under

le en kjøretidator som kan brukes i kjøretidatorer til bil. – Vi vil utvikle en kjøretidator som er plassert i chassiset i en bil, slik at alle blir veldig sikkerhetsmessig. Ideen skrev jeg fra meg etterhvert i oljeselskapet, hvor

THE CHALLENGE WE SOLVE

Low-friction access to view
what's below the surface.

A person wearing a dark jacket and a cap, seen from behind, stands on a grassy cliff overlooking a coastal town and the ocean. They are carrying a large white and blue scuba tank on their back. The sky is overcast with grey clouds. A diagonal white line separates this image from the text on the right.

Start-up

- Three initiatives coming together
- Underwater drones for the public
- Early investors
- Prototyping and testing



blueye

THE BLUEYE PIONEER

- Full **HD-camera** (1080p/30fps)
- Powerful **LED lights** (3300LM)
- 4 powerful thrusters (350 W ea.)
- Depth rating **150 m**
- **2 hours** replaceable battery
- Replaceable thrusters and tether
- **iOS** and **Android** compatible Blueye App

[More technical details found online.](#)



A person wearing a dark jacket, a helmet, and a large white and blue backpack is standing on a grassy hill, looking out over a coastal town and the ocean under a cloudy sky. The image is split diagonally, with the top-left portion showing the person and the bottom-right portion being white.

Becoming operational

- Transforming the company
- Strong focus on design and user experience
- Building organisation
- A-series for investors
- Pivot from general public to light professional usage
- Contract to manufacturing company
- First delivery to customer 2018
- Focus on customer deliveries
- Focus on production

TARGET CUSTOMERS

Professionals that benefit from frequent underwater inspections. They are not experienced ROV pilots, neither do they have much prior knowledge about underwater vehicles.

Maturing the company

- Changes to the organisation
- Covid!
- Econocial sustainability
- Sales
- Customers

A diagonal split image. The left side shows a person in a yellow jacket holding a drone controller with a smartphone attached, overlooking a body of water with a forested hill in the background. The right side is a plain white background.

Market

- Diversify
- New or established market?
- Early adaptors

Organisation

- Idealism
- Naivety
- Value of enthusiasm
- Building team
- Scaling the team



Funding

- Grunders
- Soft money
- Investors
- Cash flow from sales



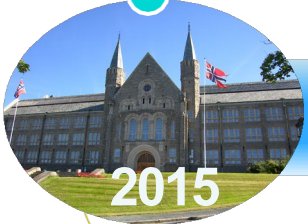
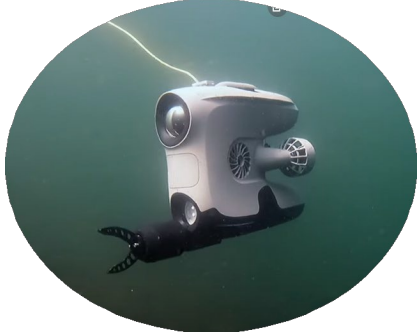
A photograph of two construction workers in high-visibility yellow and red gear sitting on a concrete wall. One worker is looking at a tablet. The background shows a large concrete structure under construction.

Today

- Technical platform
 - Multiple products
 - Flexibility
 - Scale down production
 - 1100 units in the market
- Diverse customer segments
- Cash positive

Blueye milestones

- Blueye start-up
- A spin off from AMOS¹, NTNU



2015



2018

- **Blueye Pioneer** – The first drone delivered to customers
- Pre orders for 600 units

2020

- **Blueye Pro** release
- Camera tilting for better field of view and improved light for more natural colors
- Increased depth rating to 300 meters (1000 ft)

2021

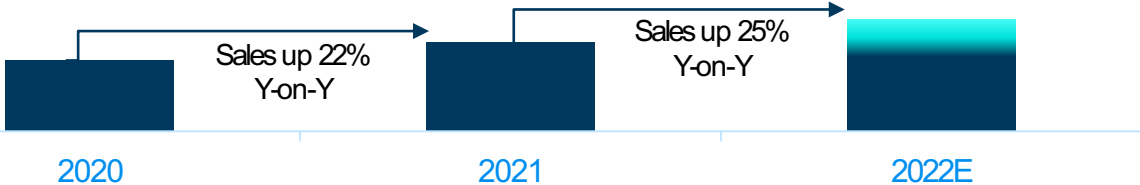
- **Blueye X3** release
- Three guest ports support positioning system, sonars, external lights, external cameras, manipulators and 2 axis gripper

2022

- **Blueye Deep** edition with improved battery (5h) and stronger Wi-Fi
- Computer vision-based navigation with position hold
- Blueye Cloud & post-processing of video/images

2023

- **“Big brother”**
- Heavier
- More power
- More payload
- Bigger battery
- More tools



1. AMOS is the Centre for Autonomous Marine Operations and Systems NTNU is the Norwegian University of Science and Technology

Our drone product range



	Pioner	Pro	X3
Dept rating	150 m	300 m	300 m
Tether lengths of 75m / 150 m / 250 m	✓	✓	✓
Price point	\$	\$\$	\$\$\$
92 Wh/3 h battery included	✓	✓	✓ (5 hrs*)
Free frequent software updates	✓	✓	✓
Compatible with Android and iOS	✓	✓	✓
Free support from Blueeye engineers	✓	✓	✓
CE certified	✓	✓	✓
HD camera	✓	✓	✓
Tiltable camera		✓	✓
Compatible with external equipment			✓

Blueeye X3 external equipment for more jobs

- SONARS**
 Navigate and find your position underwater.
- SENSORS**
 Measure and collect data with different sensors.
- POSITIONING SYSTEMS**
 See the ROV location and log where you have been with an acoustic positioning system.
- GRIPPERS AND MANIPULATORS**
 Retrieve lost objects, collect samples or deploy equipment.
- EXTERNAL CAMERA**
 Add external camera controlled in the Blueeye App.
- EXTERNAL LIGHTS**
 Get up to 10,000 lumens on your ROV.

Unique user interface – it's easy – it's an app

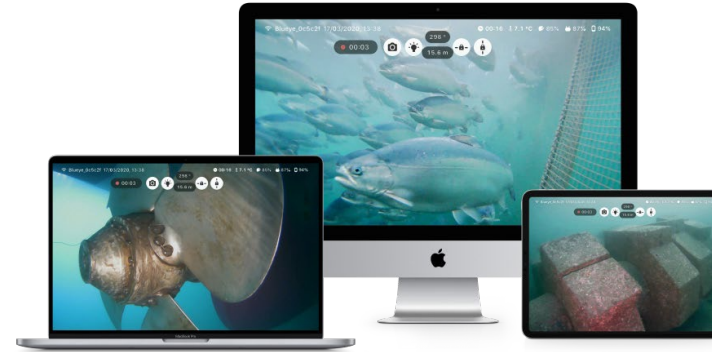


1 The Blueye App – use any smart phone – iOS or Android device to:

- Control the drone
- Combine it with a standard Playstation controller
- Download media files and dive logs
- Generate inspection reports on-the-fly

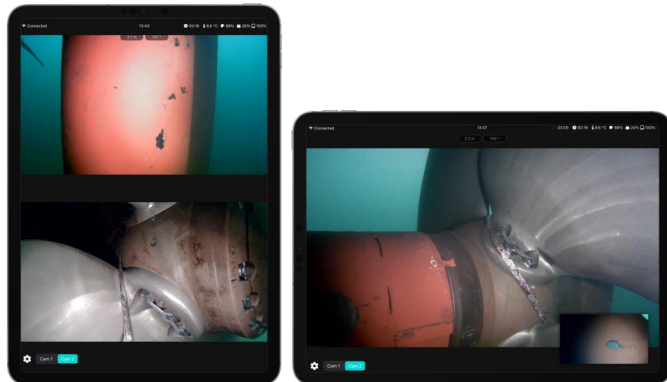


2 Microsoft Teams - live global collaboration – like any other meeting



- Collaborate in MS Teams meeting - all see the same images
- Experts can guide the drone operator to collect data, take measurements or images for decisions and documentation

3 The Observer App – everyone locally can see what the operator sees

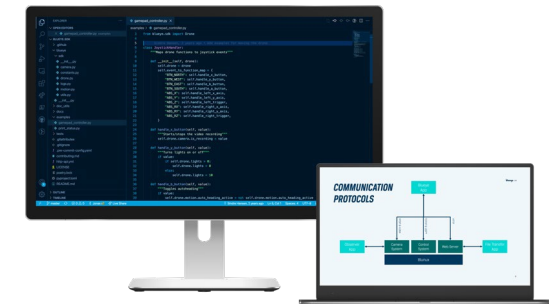


- Multiple people can connect to the drone
- More eyes increase work efficiency and quality
- Perfect for education, search and inspection

4 Simple file transfer & storage



5 Develop custom software



In hindsight

- Early testing
- Balance between naive enthusiasm and experience
- Keep focus on good partners
- Develop on all four pillars