



IKM Subsea AS

ICNET N CONTROL ACCORDANCE

"Operational experience, insight and innovation"





IKM SUBSEA AS

Business idea

Use the IKM Group's collective experience in electrical engineering, control systems and subsea design to form a manufacturing and operating company for ROV and trenching technology.





IKM Subsea business areas:

- ROV Operations Rental of ROV with personnel.
- Trencher Operations Rental of Trencher with personnel.
- Sale of ROVs







Who are we?

- Norwegian company owned by the IKM Group:
 - A multidiscipline sub-supplier to the oil and gas industry
 - 2000 employees, estimated turnover in 2009 of USD 450.000.000
- Engineering capabilities
 - Experienced engineers and inventors with more than 20 years experience from design, construction and operation of ROV's and Trenchers
- Offshore operations
 - ROV pilots and technicians with substantial offshore operational ROV experience.
- Strong Management Team
 - Chairman of the board Ståle Kyllingstad
 - CEO Anders Dirdal
 - Business Director Ben Pollard





The IKM Group

IKM Invest

Electrical Eng./ Mechanical Instrumentation/ Completion/ Process

Commissioning Operation

Engineering/ Construction/

Machining

IKM Maskinering AS

(Sola)

dept. Arendal

dept. Pyresdal

dept. Sola

dept. Tau

IKM Eiendom AS

IKM Industri-Invest AS

IKM Elektro AS (Stavanger)

IKM Instrutek AS (Larvik) dept. Bergen

IKM Laboratorium AS (Tananger) dept. Bergen dept. Oslo

IKM Measurement Services Ltd. (Aberdeen)

IKM Measurement Services Asia Pte. Ltd. (Singapore)

IKM Production Technology AS (Stavanger)

IKM Production Technology Sdn. Bhd (Malaysia)

IKM Products AS (Stavanger)

IKM Subsea AS (Bryne)

IKM Valves AS (Stavanger) (67%) dept. Bergen

IKM Testing AS (Sola) dept. Bergen dept. Hammerfest dept. Kristiansund

IKM Testing Asia Pte. Ltd. (Singapore)

IKM Testing Australia Pty. Ltd. (Perth)

IKM Testing Canada Ltd. (St. Johns)

IKM Testina Kazakhstan LLP (Atyrau)

IKM Testing Spain SL (Cadiz)

IKM Testing Thailand Co. Ltd. (Rayong)

IKM Testing UK Ltd. (Northumberland) dept. Aberdeen

IKM Consultants AS (Tananger) dept. Bergen

IKM Consultants (UK) Ltd. (Aberdeen)

IKM DSC Engineering AS (Tranby)

IKM Inspection AS (Kristiansand) dept. Grimstad dept. Grenland

IKM Kran og Løfteteknikk AS (Tananger)

IKM Mekaniske Kristiansund AS (Kristiansund)

IKM Mekaniske Stavanger AS (Stavanger) dept. Nærbø

IKM Ocean Design AS (Forus) (88%) dept. Trondheim

IKM Operations AS (Forus)

IKM Service AS (Sola)

Industrial Estate

Apartments

Development Projects

Selskapsinvesteringer AconaWellpro AS (21%) North Energy AS (3%) ScanFuel AS (41%)

Ingenium AS (34%) IOR Technology AS (51%)

Noreco ASA (5,1%)

Funds Progressus Hitecvision **Energy Ventures**

Acta



*The turnover for IKM Invest comprises companies where KM's owner share is 20% or more.



IKM Group's Subsea Involvement:

- IKM Elektro Design and manufacture of subsea electrical motors and drives, subsea HPUs and subsea control systems.
- IKM Valves Supplier of subsea valves and actuators.
- IKM Ocean Design Norway's leading engineering company for design of subsea components, structures and pipelines.
- Ingenium Engineering and design of offshore operations and equipment.
- IKM Subsea A specialist company in production and operation of ROV's and ROV technology.
- IKM Technique ROV tooling specialist





Strategic Milestones	
Development of frequency controlled subsea electrical motors - IKM Elektro	2000 - 2001
Development of Merlin Trencher - ROVCO	2000 - 2002
Establishment of IKM Subsea AS	2007
Development of Merlin workclass ROV	2007 - 8
Offshore operations	2007 - present
Milestone delivery of first all electric ROV to Shanghai Salvage Bureau.	2009
Manufacture - 2 off Merlin WR200 workclass ROV	1st half 2010
1st ROV operations contract in the North Sea Solstad AHT vessel Normand Prosper	23th March 2010
Manufacture - 4 off Merlin workclass ROV's	2010 - 2011





Plan next 2 years

Overall Goal

Become no. two to Oceaneering Norway (which also serves international market)

By 2012 we shall achieve a turnover of 250 mill NOK and have 10 work class ROV's in operation

Build program

- Start production of 4 new W-class ROV's this year
- Build further 4 new W-Class ROV's by 2012
- ROV's for sale according to client orders





Head Office and Facilities

- Nordlysveien 3, 4340 Bryne, Norway
- 400 m2 office facilities
- 3000 m2 Workshop facilities







Presence in Asia

- Asia Head office:
 Kuala Lumpur Malaysia
- Asia base and technical support Singapore
- India representative office Mumbai - India







Our Products

MERLIN TR2000

Jet Trencher

Power: 2000 HP

Depth Rating: 2000 MSW

Fully electric



MERLIN WR200 **Work Class ROV**

Power: 200 HP

Depth Rating: 3000 MSW

Electrical Propulsion



MERLIN LR120 Light Work Class ROV

Power: 120 HP

Depth Rating: 3000 MSW

Electrical Propulsion





































Design	Advantage
Fully electrical propulsion system	More power and efficiency, lateral/vertical pull of 8/11 kN resp. and 90% of power transmitted
Integrated frame and bouyancy in composite construction	Reduced weight, enhanced stability, reduced drag and improved maintenance accessability
Fully redundant electrical propulsion system	Can operate with 3 thrusters out of function
Frequency controlled thrusters with power control topside	Higher reliability and longer service life
"Green" design	Limited risk of pollution
Configurable PLS control system based on fiber optic communication	Reliable control with options to control remote tooling through the ROV
Subsea hydraulic power system for manipulators and tooling	Flexibility to drive any manipulator and hydraulic tooling.
Subsea electrical tooling interface	Flexibility to drive any electrical tools





Operation Center

- Two HMI chairs
- Ergonomic man-machine interface with NS12 Omron touch panel
- Intuitive Graphical User Interface, fully configurable
- Flat screen video wall:2 x 42", 7 x 22" high definition LED monitors
- Advanced manipulator control
- Dual redundant air-conditioning system







LARS and TMS

Sourced from renowned suppliers

Winch CETIX AS

WAVERUNNER™ Electrical Winch





A-frame SEPRO Technology AS

HPL Dipping A-Frame



TMS
MALM ORSTAD AS

Standard Tether Management System





Operation resources

Our staff has extensive experience from design, construction and operation of ROV's and Trenchers in several countries of the world.

Personnel

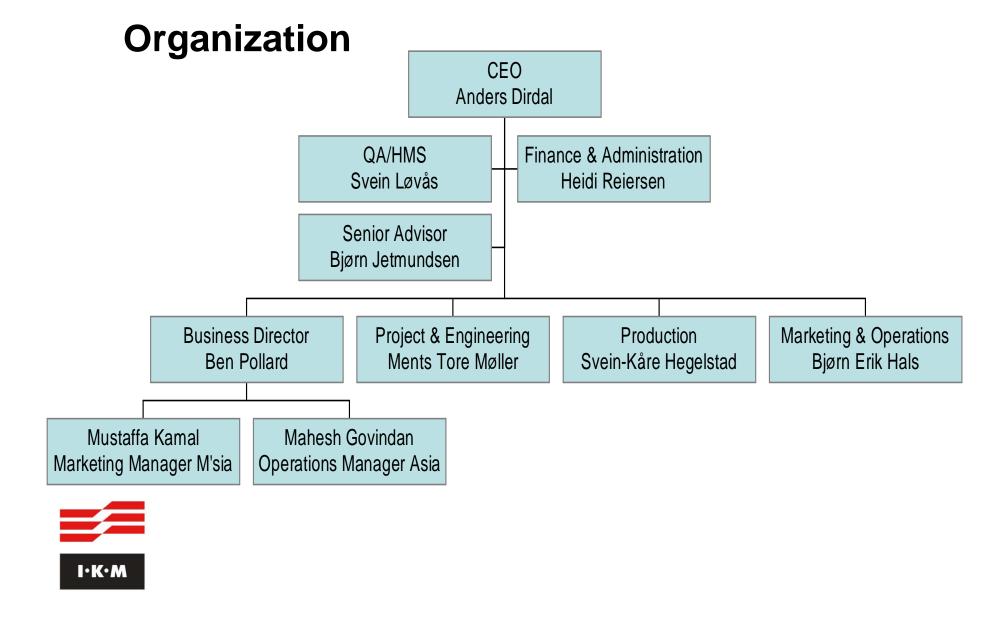
- Pilots
- Technicians
- Supervisors
- Superintendents
- Engineers

Our resources have accredited training through the IKM Training Program











Summary IKM Subsea









Experience! We have the experience and dedication to provide clients with working solutions to their remote intervention needs. We solve customers' challenges with design and engineering innovations and in the forefront of technical advancement. Our personnel have broad experience from subsea operation / construction work and provide first class service to our customers.

Technical Advantages: Our ROV Systems Provide the customers with the following advantages:

Increased system reliability

Best in class performance and characteristics

Easy access and maintenance

Electrical propulsion system

Configurable control system

Best in class man-machine interface

Green ROV. AS the Merlin is an electrical ROV, this eliminates the risk of pollution as compared to conventional ROVs.



IKM Subsea AS Nordlysveien 3, 4340 Bryne, Norway

Tel: +47 96 20 02 10

www.ikm.no/ikmsubsea

IKM Subsea AS 117 Defu Lane Singapore 539229 Tel: +6567778803











Contact persons:

Anders Dirdal +47 92 61 25 25, <u>anders.dirdal@ikm.no</u> Ben Pollard +47 47 46 43 67, <u>ben.pollard@ikm.no</u>

Mahesh Govindan +6596607629,

mahesh.govindan@ikm-group.com