IKM Subsea AS
"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.

Zero injuries - an overall objective!
IKM Subsea business areas:

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

Zero injuries - an overall objective!
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*

*Zero injuries - an overall objective!*
The IKM Group

Electrical Eng./Instrumentation/Process
IKM Elektro AS (Stavanger)
IKM Instrutek AS (Lavik)
dpt. Bergen
IKM Laboratorium AS (Tønsberg)
dpt. Bergen
dpt. Trondheim
IKM Measurement Services Ltd. (Aberdeen)
IKM Measurement Services Asia Pte. Ltd. (Singapore)

Mechanical Completion/Commissioning
IKM Testing AS (Stavanger)
dpt. Bergen
dpt. Hammerfest
dpt. Kristiansund
IKM Testing Asia Pte. Ltd. (Singapore)

Engineering/Construction/Operation
IKM Consultants AS (Trondheim)
dpt. Bergen
IKM Consultants UK Ltd. (Aberdeen)

Machining
IKM Maskinering AS (Sola)
dpt. Arendal
dpt. Ytreostdal
dpt. Sola
dpt. Ila

IKM Invest

IKM Eiendom AS
Industrial Estate
Apartments
Development Projects

IKM Industri-Inves AS

SeislaasInvestering AS (21%)
AconsWell AS (21%)
North Energy AS (3%)
ScandInve AS (41%)
Inginium AS (94%)
IOI Technology AS (51%)
Norco ASA (5,1%)

Fund
Progressus
Maelvann
Energy Ventures
ACI

*The turnover for IKM Invest comprises companies where KN’s own 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

Zero injuries – an overall objective!
<table>
<thead>
<tr>
<th>Strategic Milestones</th>
<th>Date</th>
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<tbody>
<tr>
<td>Development of frequency controlled subsea electrical motors - IKM Elektro</td>
<td>2000 - 2001</td>
</tr>
<tr>
<td>Development of Merlin Trencher - ROVCO</td>
<td>2000 - 2002</td>
</tr>
<tr>
<td>Establishment of IKM Subsea AS</td>
<td>2007</td>
</tr>
<tr>
<td>Development of Merlin workclass ROV</td>
<td>2007 - 8</td>
</tr>
<tr>
<td>Offshore operations</td>
<td>2007 - present</td>
</tr>
<tr>
<td>Milestone delivery of first all electric ROV to Shanghai Salvage Bureau.</td>
<td>2009</td>
</tr>
<tr>
<td>Manufacture - 2 off Merlin WR200 workclass ROV</td>
<td>1st half 2010</td>
</tr>
<tr>
<td>1st ROV operations contract in the North Sea Solstad AHT vessel Normand Prosper</td>
<td>23th March 2010</td>
</tr>
<tr>
<td>Manufacture - 4 off Merlin workclass ROV’s</td>
<td>2010 - 2011</td>
</tr>
</tbody>
</table>
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

Zero injuries – an overall objective!
Presence in Asia

- **Asia Head office:**
  Kuala Lumpur - Malaysia

- **Asia base and technical support**
  Singapore

- **India representative office**
  Mumbai - India

Zero injuries - an overall objective!
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

*Zero injuries - an overall objective!*
IKM Subsea - Technological Advantage

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

Zero injuries - an overall objective!
LARS and TMS
Sourced from renowned suppliers

Winch
CETIX AS

A-frame
SEPRO Technology AS

TMS
MALM ORSTAD AS

WAVERUNNER™
Electrical Winch

HPL
Dipping A-Frame

Standard
Tether Management System

Zero injuries - an overall objective!
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

Zero injuries - an overall objective!
Organization

CEO
Anders Dirdal

QA/HMS
Svein Løvås

Senior Advisor
Bjørn Jetmundsen

Finance & Administration
Heidi Reiersen

Business Director
Ben Pollard

Project & Engineering
Ments Tore Møller

Production
Svein-Kåre Hegelstad

Marketing & Operations
Bjørn Erik Hals

Mustaffa Kamal
Marketing Manager M'sia

Mahesh Govindan
Operations Manager Asia

Zero injuries - an overall objective!
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.

Zero injuries - an overall objective!
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Zero injuries - an overall objective!