INDUSTRY GROWTH AND PRODUCTIVITY: THE NORWEGIAN CASE OF BUSINESS CLUSTERS

By Sveinung Fjose, Managing Partner in Menon Economics

South-Africa, 6 June 2016
• History and status of the maritime/oil and gas cluster in Norway

• How they have benefitted from cluster participation
• Good natural conditions
• Cheap labor
• Protective regulations in the start-up of the oil-industry
• Competitiveness has lasted after natural conditions have ended and government is no longer protective.
  - Because it has turned into a knowledge based industry
Exports of the Maritime Oil and Gas Industry Latest Years

International sales

Billion Norwegian Kroners

2003 2005 2007 2009 2011 2012 2014
IT CANNOT BE EXPLAINED BY A BOOM IN THE INTERNATIONAL OIL AND GAS MARKETS ALONE

Growth in offshore oil and gas market and Norwegian foreign sales

- Global marked growth
- Growth in foreign sales Norgian Industry
• History and status of the maritime/oil and gas cluster in Norway
• How they have benefitted from cluster participation
Annual difference in growth rates between business in clusters and business outside clusters

<table>
<thead>
<tr>
<th>Metric</th>
<th>Percentage Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>5</td>
</tr>
<tr>
<td>Productivity</td>
<td>0</td>
</tr>
<tr>
<td>Profitability</td>
<td>0</td>
</tr>
<tr>
<td>Number of employees</td>
<td>4</td>
</tr>
<tr>
<td>Value creation</td>
<td>3</td>
</tr>
</tbody>
</table>
PARTICIPATION IN THE CLUSTER IS PROFITABLE

Development without cluster program

Development with cluster program

Potential development

Effect of cluster program

Value Creation
PARTICIPATION IN CLUSTERS HAS BEEN ESPEIALLY PROFITABLE FOR MARITIME AND OIL AND GAS

Percentage growth since 2010

- Oil & Gas
- Construction
- Trade
- Finance
- Maritime
- Knowledge Services
- IT, Telecom &…
- Traditional…
- Travel
- Technology…
- Health & Life…
- Seafood
- Food processing
PRODUCTIVITY – WAGE COST PER EMPLOYEE

Wage cost per employee

<table>
<thead>
<tr>
<th>Industry</th>
<th>Wage Cost Per Employee (1000 NOK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maritime</td>
<td>900</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>900</td>
</tr>
<tr>
<td>Finance</td>
<td>800</td>
</tr>
<tr>
<td>Seafood</td>
<td>700</td>
</tr>
<tr>
<td>Technology Manufacturing</td>
<td>600</td>
</tr>
<tr>
<td>Knowledge Services</td>
<td>600</td>
</tr>
<tr>
<td>IT, Telecom &amp; Media</td>
<td>500</td>
</tr>
<tr>
<td>Traditional Manufacturing</td>
<td>400</td>
</tr>
<tr>
<td>Health &amp; Life Science</td>
<td>300</td>
</tr>
<tr>
<td>Construction</td>
<td>300</td>
</tr>
<tr>
<td>Food Processing</td>
<td>300</td>
</tr>
<tr>
<td>Trade</td>
<td>200</td>
</tr>
<tr>
<td>Travel</td>
<td>200</td>
</tr>
</tbody>
</table>
What does it take for a business to succeed?
What does it take for a business to succeed?

Customers

Demanding
- Demanding needs
- Clear expectations
- In front technologically

> Creates incentives and impulses for innovations
What does it take to develop sustainable competitive advantage?

**Competitors**

Race to deliver
- Better
- Less expensive

*Incentives to follow innovation impulses from demanding customers*
What does it take for a business to succeed?

Research

Science should be combined with
- Practical experience
- To meet the needs of the client

➢ This is the fastest track to commercializing new ideas
What does it take for a business to succeed?

**Suppliers**
- Specialized
- Competitive

- **Opportunities for outsourcing and focus on core competence**
- **Possibility of taking advantage of strategical resources of others**
What does it take for a business to succeed?

**Owners**
- Competent
- Active
- Financially strong
- Relevant network

- Better access to capital
- Access to complimentary resources

---

Customers

Competitors

Research

Suppliers

The business

Owners
What does it take for a business to succeed?

**Employees**
Sufficient access to expertise that matches your company's needs in all areas

Work culture for:
- collaboration and sharing of knowledge
- taking responsibility
- learning, innovate, copy and perform
These are the preconditions for a dynamic and competitive cluster.

The conditions for business and clusters to grow are the same.