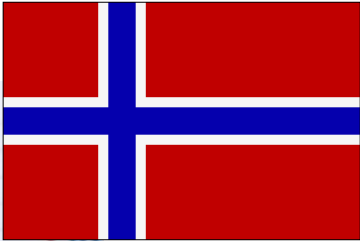


ORF SEE IT - Development of Regional Export Promotion Action Plan

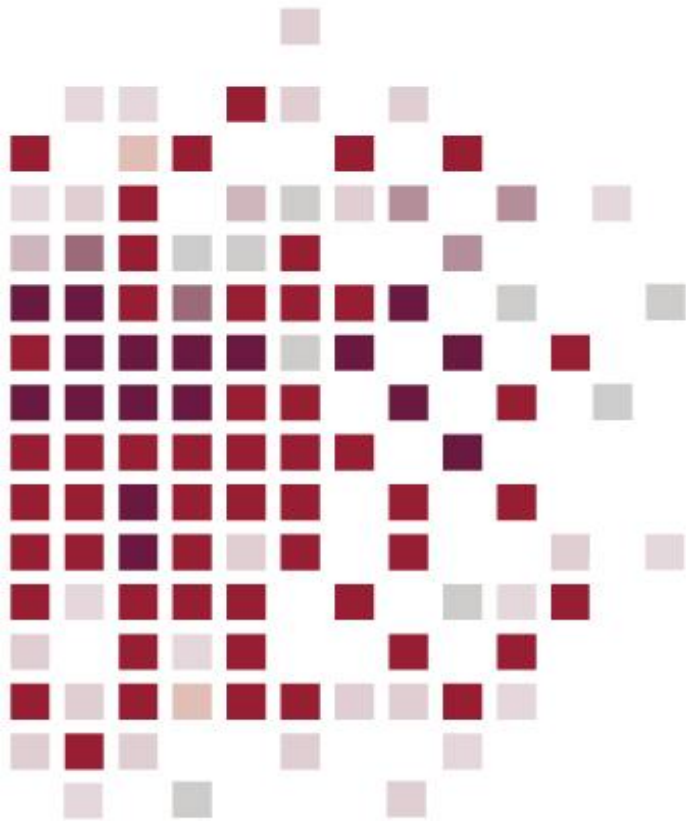
IT Market Analysis Norway

April, 2014

IT Market Analysis Norway



Agenda



1. ICT Market

2. Software Market

3. IT Services Market

4. IT Outsourcing

5. Key Success Factors for Exporting

Norway – Country Overview

| Norway - Key Economic Indicators | | | |
|----------------------------------|--------|--------|--------|
| | 2010 | 2011 | 2012 |
| Population (Mio) | 4.9 | 5.0 | 5.0 |
| GDP (Bn EUR) | 311.85 | 315.59 | 325.38 |
| Real GDP/ Capita (EUR) | 52,000 | 52,000 | 52,800 |
| GDP Growth | 0.5 | 1.2 | 3.1 |
| Trade Balance of Payments (%GDP) | 11.9 | 12.8 | 14.4 |
| Inflation Rate | 2.4 | 1.3 | 0.7 |
| Umemployment Rate | 3.6 | 3.3 | 3.2 |

Source: World Bank, OECD, Eurostat

Norway – ICT market overview (1/3)

High share of IT Services and growing share of software

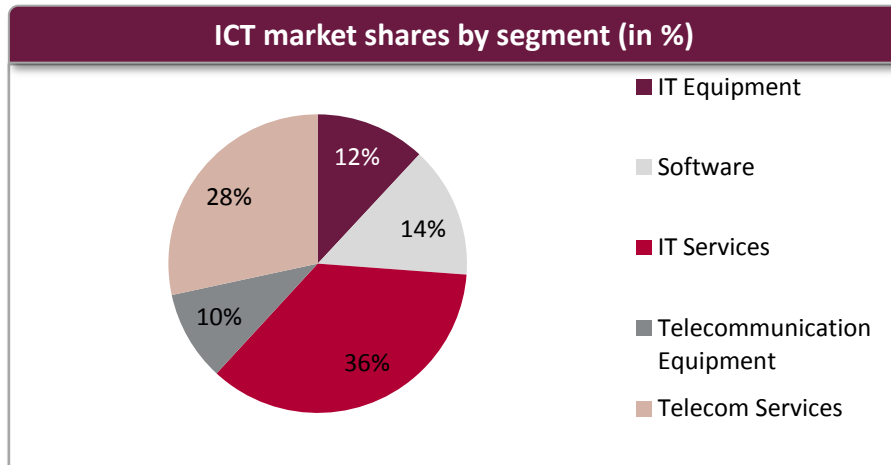
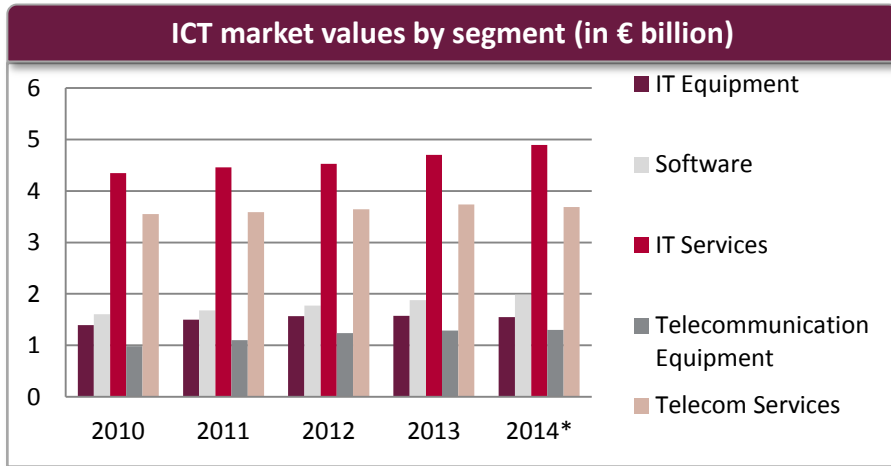
| Total ICT market value by segment 2010 – 2014 (in € billion) | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|
| Segment | 2010 | 2011 | 2012 | 2013 | 2014* |
| IT Equipment | 1.4 | 1.5 | 1.6 | 1.6 | 1.6 |
| Software | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 |
| IT Services | 4.3 | 4.5 | 4.5 | 4.7 | 4.9 |
| Telecommunication Equipment | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 |
| Telecom Services | 3.6 | 3.6 | 3.6 | 3.7 | 3.7 |
| Total ICT | 11.9 | 12.3 | 12.8 | 13.2 | 13.4 |
| Total ICT market growth rates by segment 2011 – 2014 (in %) | | | | | |
| Segment | 2011 | 2012 | 2013 | 2014* | |
| IT Equipment | 7.7% | 4.6% | 0.1% | -1.3% | |
| Software | 4.9% | 5.6% | 5.7% | 5.8% | |
| IT Services | 2.6% | 1.6% | 3.8% | 4.2% | |
| Telecommunication Equipment | 13.7% | 12.3% | 4.2% | 0.8% | |
| Telecom Services | 1.0% | 1.6% | 2.5% | -1.3% | |
| Total ICT | 3.9% | 3.5% | 3.3% | 1.9% | |

Source: EITO 2013

*Estimated values

Norway – ICT market overview (2/3)

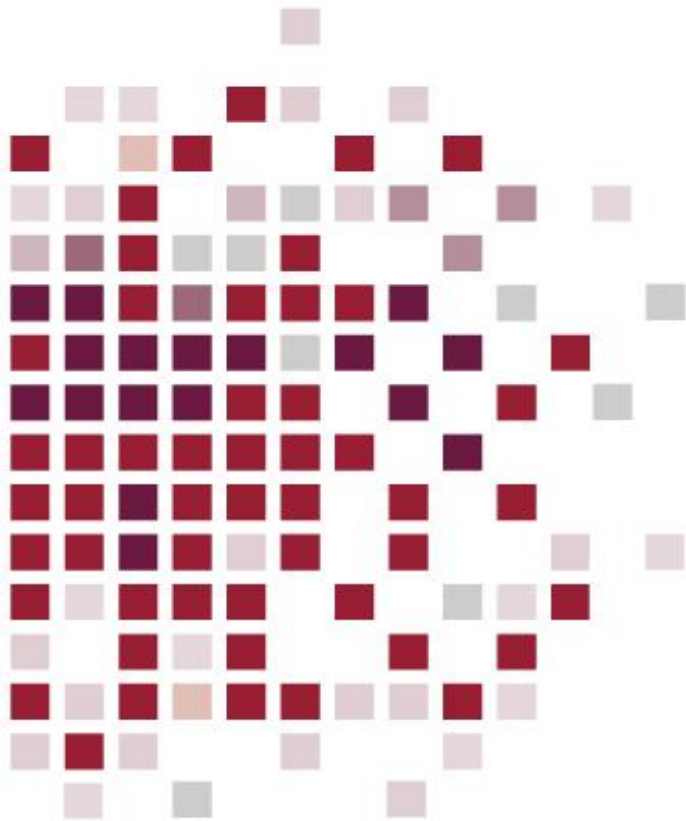
ICT sector as 2nd-largest land-based industry – war for talent due to skills shortages



- Overview**
- **ICT sector as 2nd-largest land-based industry by revenue:**
 - **Flagship industry**
 - **Workforce: 117,000 (4.8% of total workforce)**
 - **War for talent and skill shortages: job vacancies rose from 2,300 (in 2011) to 3,100 (in 2012)**
 - **shortages of engineers as well as skills shortages in software development and data technicians**
 - 17% of ICT firms had to recruit persons with an educational background other than that initially required
 - Average annual salaries increased by 5%
 - many companies in the ICT industry supply modular and software solutions (including data, customer relations, administrative, and financial management systems), to virtually all private and public sectors
 - range of available products includes satellite communications systems, global positioning systems, mobile phone systems, network management systems, transmission systems, and fiber optic technologies.
 - Norwegian companies have also been pioneers in the fields of telemedicine and remote learning. Advanced public-sector solutions are starting to find international buyers

Source: Statistics Norway Website, EITO 2013

Agenda



1. ICT Market
2. **Software Market**
3. IT Services Market
4. IT Outsourcing
5. Key Success Factors for Exporting

Norway – Software market overview (1/2)

Application software products as the largest, and SaaS as the fastest growing segment

| Total software market value by segment 2010 – 2017 (in € billion) | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|------------|
| Segment | 2011 | 2012 | 2013 | 2014* | 2015* | 2016* | 2017* |
| Infrastructure software & platforms | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 |
| Application software products | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 |
| SaaS | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| Total software | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 |

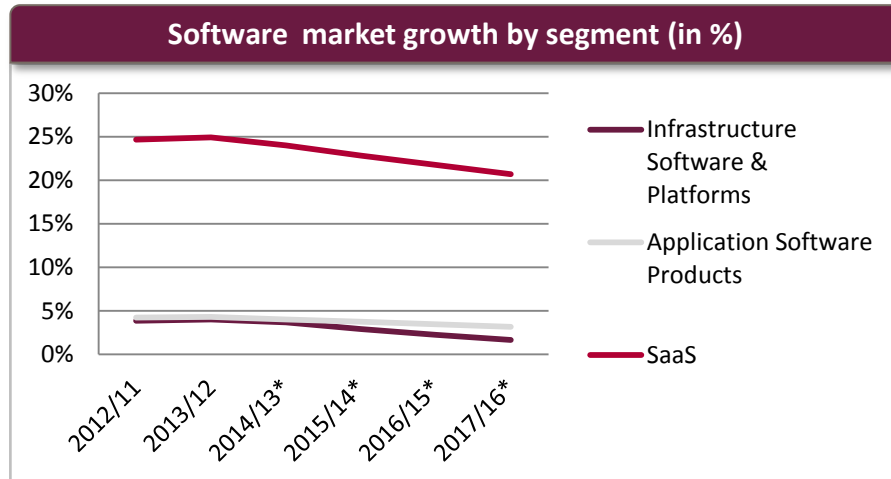
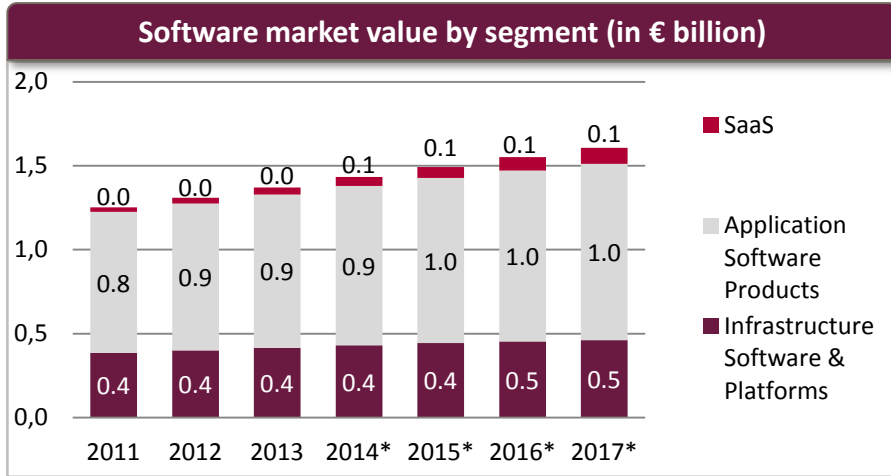
| Total software market growth rates by segment 2011 – 2017 (in %) | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Segment | 2012/11 | 2013/12 | 2014/13* | 2015/16* | 2016/17* | 2017/16* | CAGR |
| Infrastructure software & platforms | 3.8% | 4.0% | 3.7% | 2.9% | 2.2% | 1.6% | 2.6% |
| Application software products | 4.2% | 4.3% | 4.0% | 3.7% | 3.4% | 3.1% | 3.6% |
| SaaS | 24.6% | 24.9% | 24.0% | 22.8% | 21.8% | 20.7% | 22.3% |
| Total software | 4.5% | 4.7% | 4.5% | 4.2% | 3.9% | 3.6% | 4.0% |

Source: PAC 2013

*Estimated values

Norway – Software market overview (2/2)

Software market is expected to grow by a CAGR of 4% in the interval 2011 – 2017



Overview

- The Norwegian software market grew by 4.7% in 2012 to reach a value of EUR 1.3 billion; in 2013 the software market reached a market value of EUR 1.4 billion
- **The performance of the market is forecasted to accelerate, with an anticipated CAGR of 4% for the five-year period 2012 – 2017**

Category Segmentation:

- The general business productivity and home use applications segment was the market's most lucrative in 2011, with total revenues of EUR 277.6 million, equivalent to 22.9% of the market's overall value
- The network and database management segment contributed revenues of EUR 268.5 million in 2011, equaling 22.1% of the market's aggregate value

Geography segmentation

- **Norway accounts for 1.8% of the European software market**

Source: PAC 2013, Software in Norway, Marketline, 2012

*Estimated values

Norway – IT Software market key players

Highly competitive Software providers landscape – Global Players face serious competition

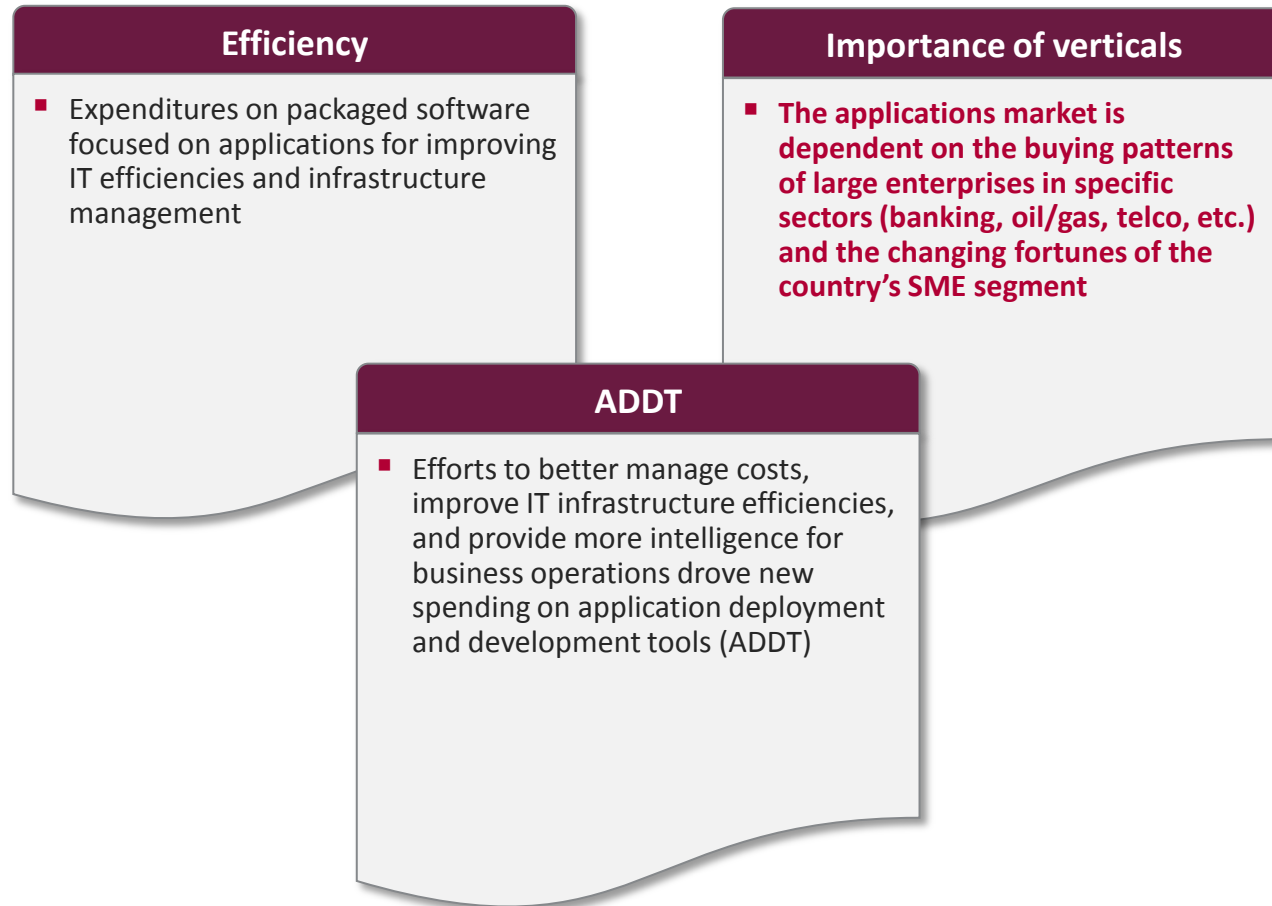
IT Software Providers in Norway



Source: Capgemini Consulting Analysis

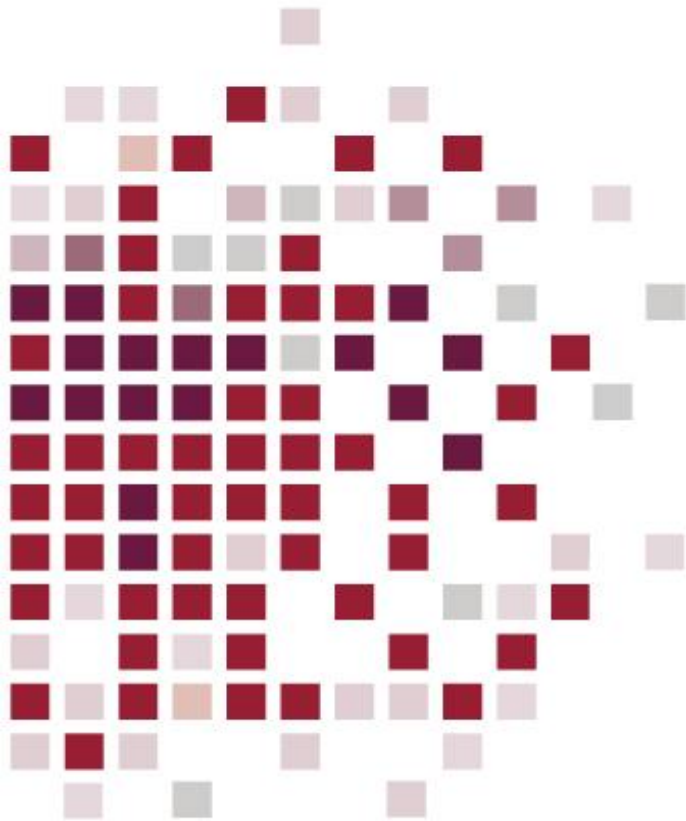
Norway – IT Software market key trends

Application deployment and development tools as one key trend



Source: Number and Trends, ICT Market Monitor 2013; The Dutch Software Sector, Survey 2010

Agenda



1. ICT Market
2. Software Market
3. **IT Services Market**
4. IT Outsourcing
5. Key Success Factors for Exporting

Norway – IT Services market overview (1/2)

Infrastructure-Related Services as the largest segment by value – closely followed by Application-Related Services

| Total IT Services market value by segment 2010 – 2017 (in € billion) | | | | | | | |
|--|------------|------------|------------|------------|------------|------------|------------|
| Segment | 2011 | 2012 | 2013 | 2014* | 2015* | 2016* | 2017* |
| Infrastructure-Related Services | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 | 2.2 |
| Application-Related Services | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 |
| BPO | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 |
| Total IT Services | 3.5 | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 4.2 |

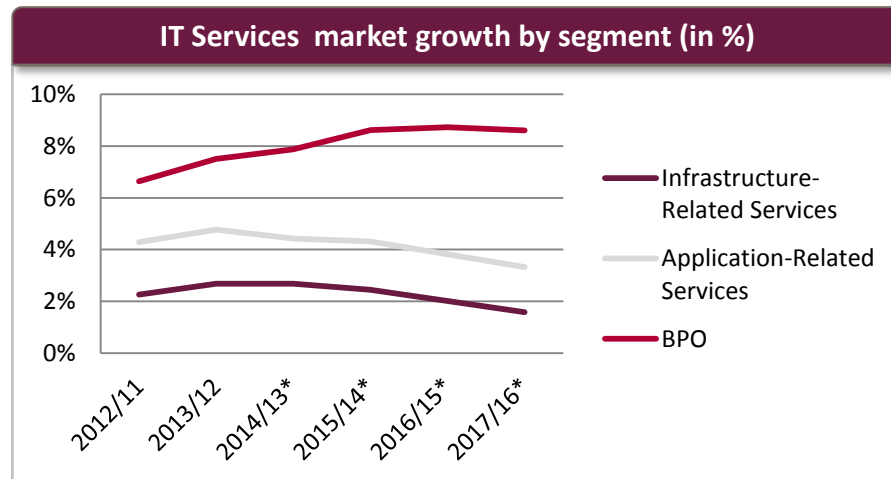
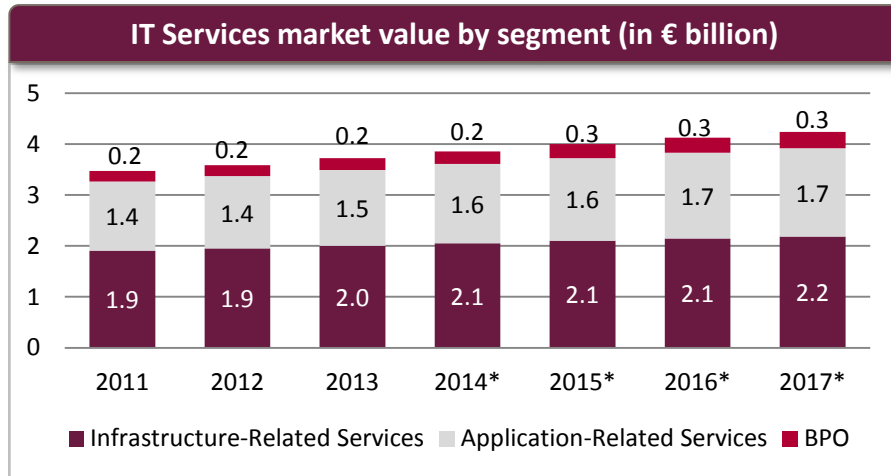
| Total IT Services market growth rates by segment 2011 – 2017 (in %) | | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Segment | 2012/11 | 2013/12 | 2014/13* | 2015/16* | 2016/17* | 2017/16* | CAGR |
| Infrastructure-Related Services | 2.3% | 2.7% | 2.7% | 2.4% | 2.0% | 1.6% | 2.2% |
| Application-Related Services | 4.3% | 4.8% | 4.4% | 4.3% | 3.8% | 3.3% | 4.0% |
| BPO | 6.6% | 7.5% | 7.9% | 8.6% | 8.7% | 8.6% | 8.5% |
| Total IT Services | 3.3% | 3.8% | 3.7% | 3.6% | 3.2% | 2.8% | 3.3% |

Source: PAC 2013

*Estimated values

Norway – IT Services market overview (2/2)

IT Services market is expected to keep growth pattern with a CAGR of 3.3% for the interval 2011 – 2017



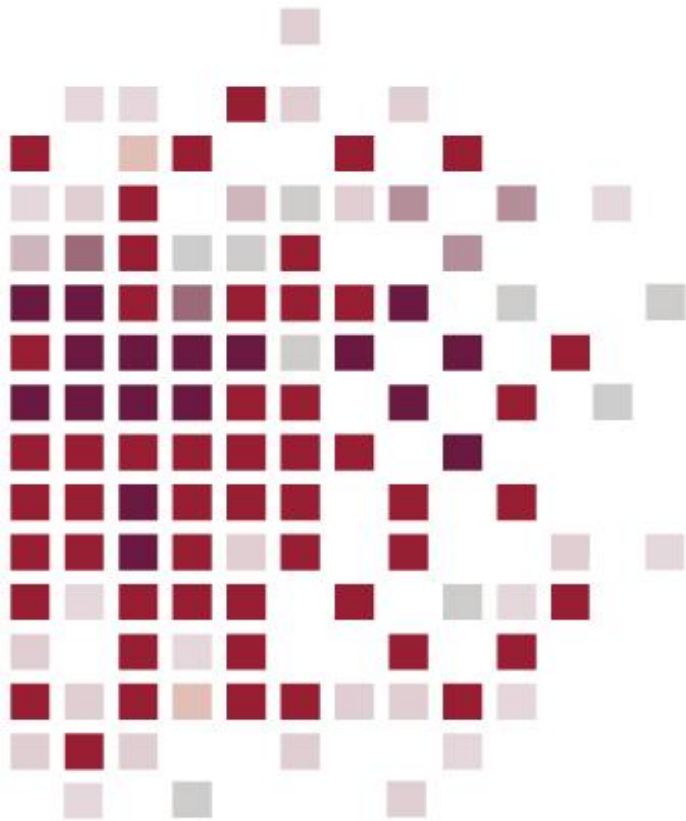
Overview

- Infrastructure-Related Services remain the largest segment (by value) but **Application-Related Services**, as well as BPO are **becoming more important** due to larger growth rates
- A considerable share of large outsourcing (IT and BPO) deals will be forthcoming from both the public and the private sectors, where the **energy and oil and gas industries** in particular are performing very well
 - **Importance of verticals (industries)**

Source: PAC 2013, Software in Norway, Marketline, 2012

*Estimated values

Agenda



1. ICT Market
2. Software Market
3. IT Services Market
4. **IT Outsourcing**
5. Key Success Factors for Exporting

Norway – IT Outsourcing market value by segments (in € million)

| Segments & Sub-segments | | | 2010 | 2011 | 2012 | 2013 | 2014* | 2015* | 2016* |
|---|---------------------------------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Cloud Services | Infrastructure as a Service (IaaS) | Cloud Compute Services | 7 | 10 | 16 | 22 | 33 | 45 | 54 |
| | | Cloud Print Services | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Storage as a Service | 4 | 5 | 6 | 8 | 10 | 12 | 12 |
| Total (Cloud Services) | | | 12 | 16 | 22 | 31 | 43 | 58 | 67 |
| Infra-structure Outsourcing | Data Center Outsourcing | Data Center Outsourcing | 674 | 686 | 689 | 692 | 695 | 698 | 699 |
| | End User Device Outsourcing | Desktop | 259 | 258 | 259 | 260 | 262 | 268 | 278 |
| | | Mobile | 14 | 29 | 33 | 38 | 42 | 46 | 50 |
| | Enterprise Network Outsourcing | | 412 | 424 | 429 | 436 | 445 | 454 | 464 |
| | Help Desk Outsourcing | | 50 | 52 | 52 | 53 | 54 | 55 | 57 |
| | Infrastructure Utility Services | | 93 | 125 | 141 | 159 | 183 | 211 | 240 |
| Total (Infrastructure Outsourcing) | | | 1,502 | 1,574 | 1,603 | 1,638 | 1,681 | 1,731 | 1,788 |
| Applications Outsourcing | Commercial Application Outsourcing | | 129 | 136 | 137 | 140 | 143 | 146 | 151 |
| | Custom Application Outsourcing | | 81 | 82 | 83 | 84 | 86 | 88 | 91 |
| Total (Applications Outsourcing) | | | 210 | 217 | 220 | 224 | 229 | 234 | 242 |
| Total (IT Outsourcing) | | | 1,724 | 1,807 | 1,845 | 1,893 | 1,954 | 2,023 | 2,098 |

Source: Gartner 2013

*Estimated values

Norway – IT Outsourcing market growth by segments (in %)

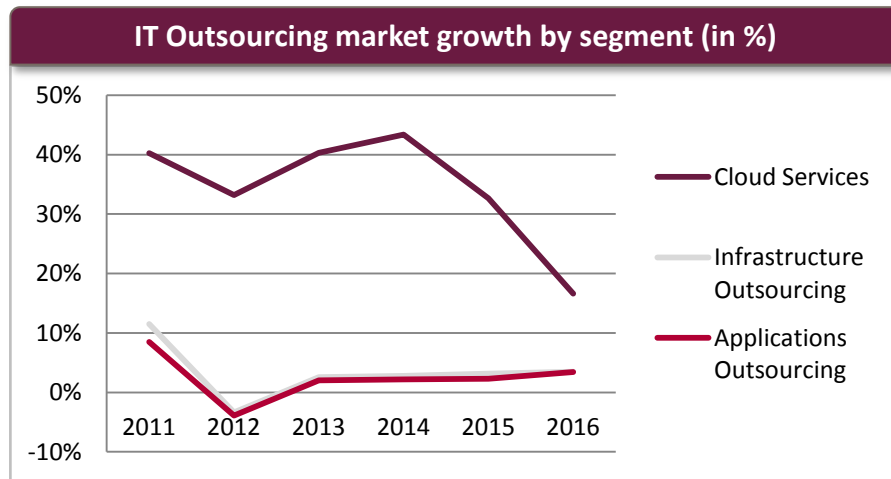
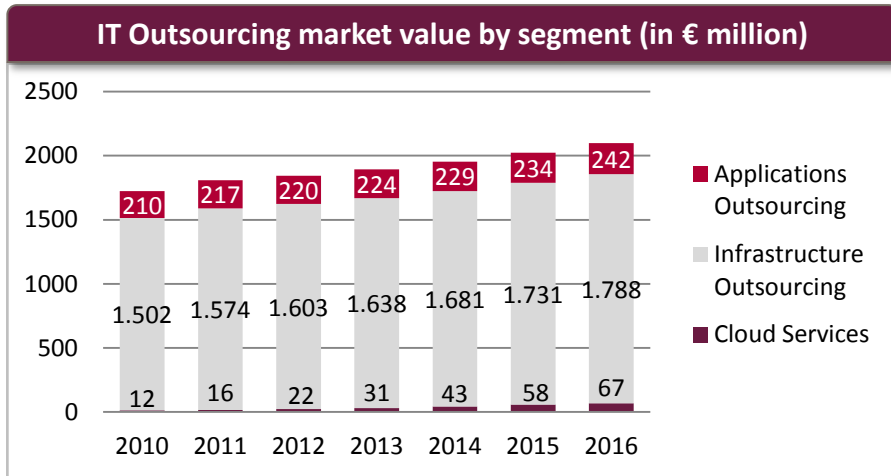
| Segments & Sub-segments | | | 2011 | 2012 | 2013 | 2014* | 2015* | 2016* |
|---|---------------------------------------|-------------------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Cloud Services | Infrastructure as a Service (IaaS) | Cloud Compute Services | 50.5% | 41.5% | 43.7% | 49.6% | 36.2% | 19.6% |
| | | Cloud Print Services | 13.2% | 10.0% | 14.7% | 13.1% | 11.0% | 10.2% |
| | | Storage as a Service | 20.4% | 13.1% | 31.7% | 23.1% | 19.6% | 3.3% |
| Total (Cloud Services) | | | 40.2% | 33.2% | 40.3% | 43.3% | 32.6% | 16.6% |
| Infra-structure Outsourcing | Data Center Outsourcing | Data Center Outsourcing | 6.9% | -4.8% | 0.6% | 0.5% | 0.4% | 0.2% |
| | End User Device Outsourcing | Desktop | 4.9% | -5.1% | 0.6% | 1.0% | 2.0% | 4.0% |
| | | Mobile | 107.6% | 9.1% | 14.2% | 11.6% | 8.8% | 9.0% |
| | Enterprise Network Outsourcing | | 8.0% | -4.1% | 1.9% | 2.0% | 2.0% | 2.2% |
| | Help Desk Outsourcing | | 9.0% | -4.3% | 1.6% | 1.8% | 1.9% | 3.0% |
| | Infrastructure Utility Services | | 41.2% | 6.4% | 13.6% | 14.5% | 15.4% | 14.0% |
| Total (Infrastructure Outsourcing) | | | 11.5% | -3.4% | 2.6% | 2.8% | 3.2% | 3.5% |
| Applications Outsourcing | Commercial Application Outsourcing | | 10.0% | -3.9% | 2.1% | 2.2% | 2.3% | 3.4% |
| | Custom Application Outsourcing | | 5.9% | -4.0% | 1.9% | 2.2% | 2.2% | 3.4% |
| Total (Applications Outsourcing) | | | 8.5% | -3.9% | 2.0% | 2.2% | 2.3% | 3.4% |
| Total (IT Outsourcing) | | | 11.4% | -3.0% | 3.1% | 3.6% | 3.9% | 3.9% |

Source: Gartner 2013

*Estimated values

Norway – IT Outsourcing market overview

Infrastructure as a Service as the key driver of Cloud Services' growth



Overview

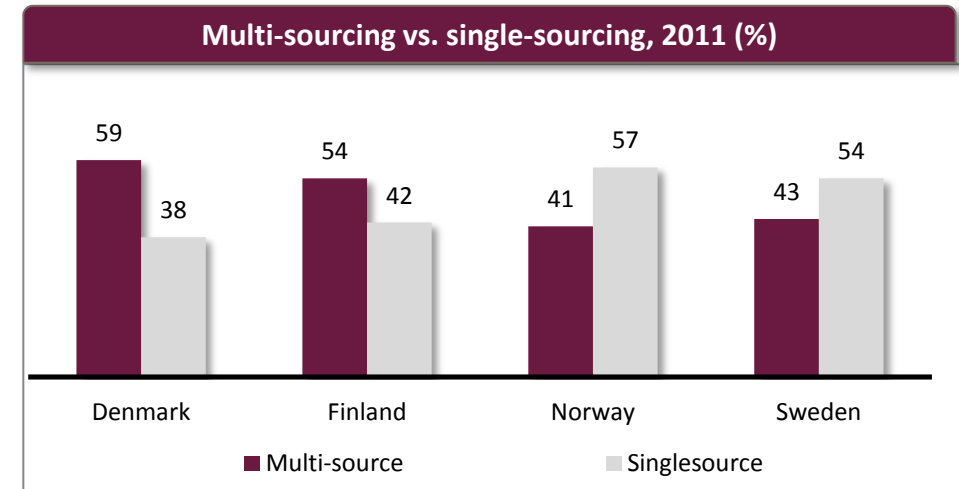
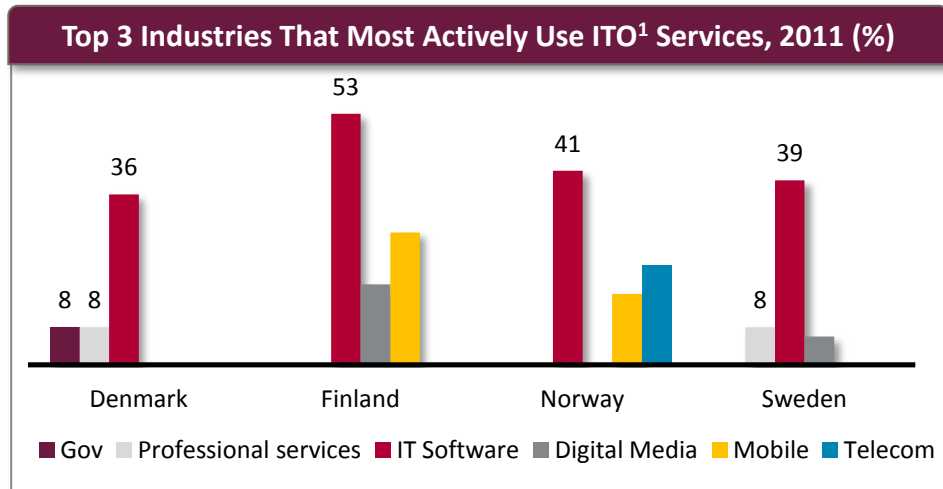
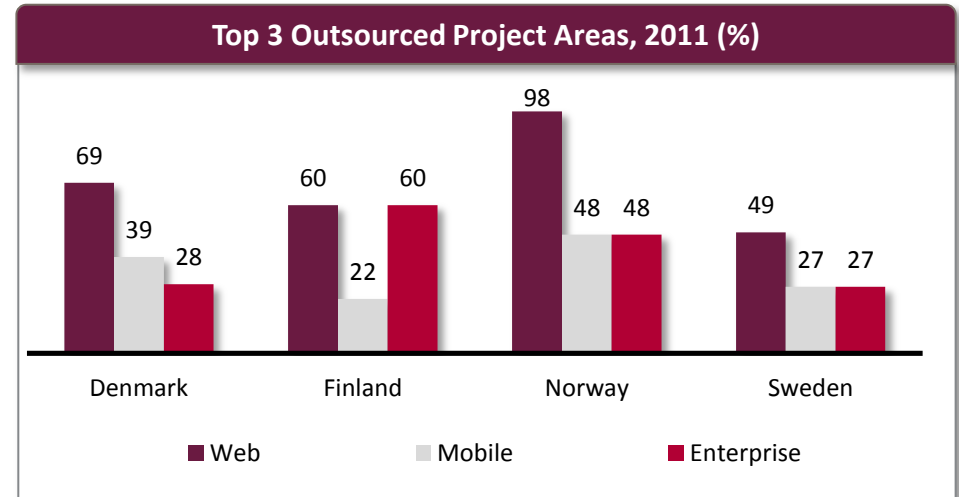
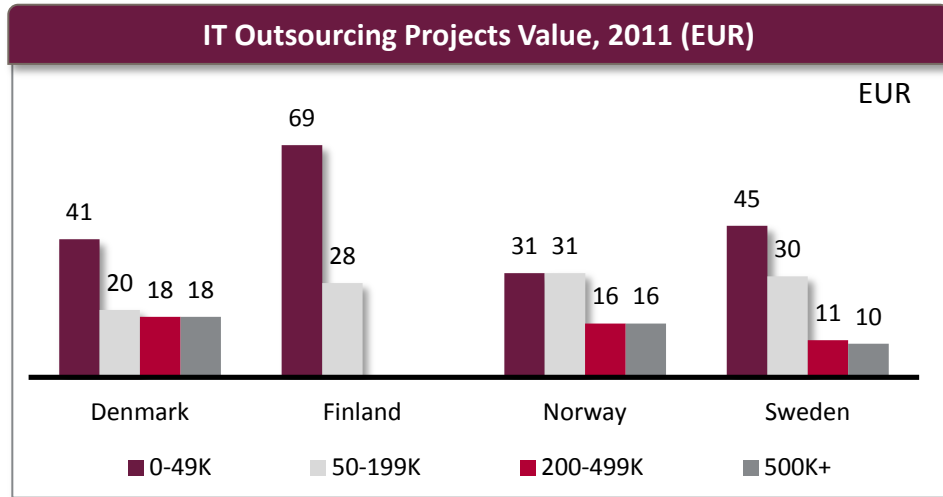
- **Total IT Outsourcing market expected to grow steadily between 3-4% per year until 2016**
- Infrastructure Outsourcing as the largest segment (by value)
- **Infrastructure and Application Outsourcing face a moderate growth, after a decline in 2012**
- Cloud Services with a constant double-digit growth until 2016, but remaining a relatively small segment (by value)

Source: Gartner 2013

*Estimated values

Norway – IT Outsourcing market trends (1/3)

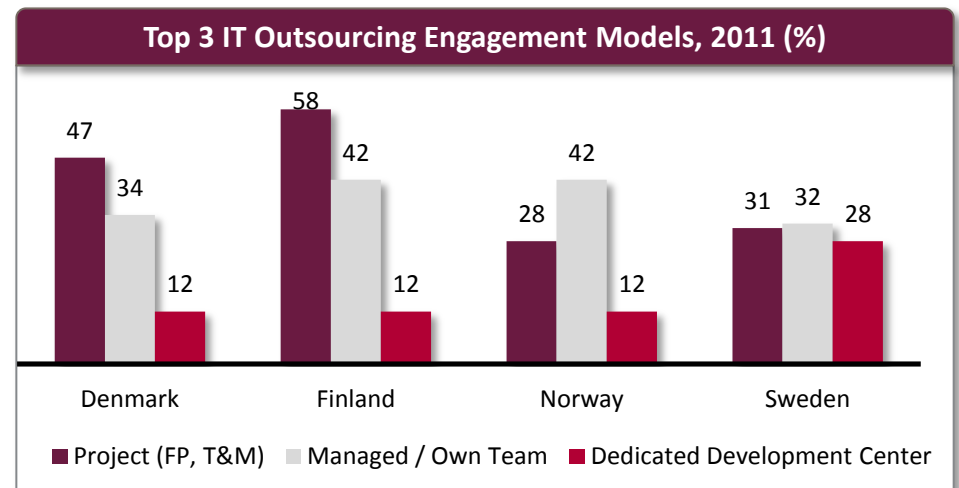
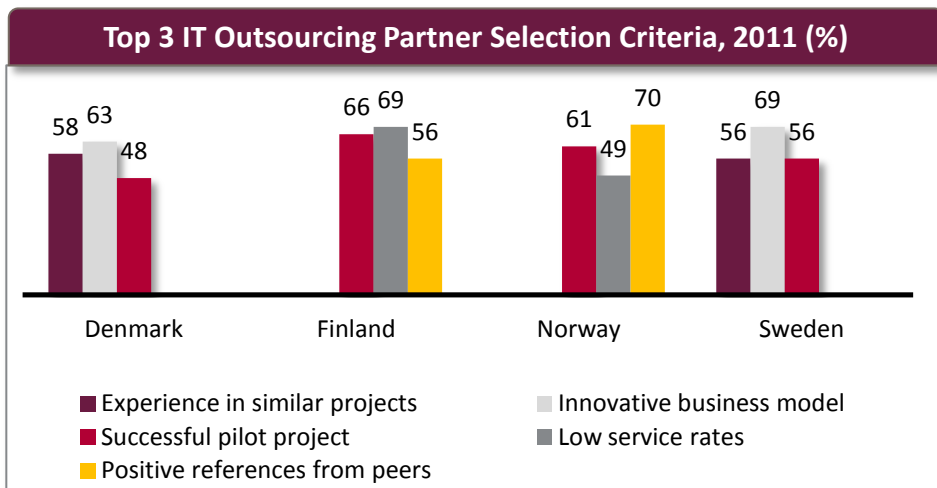
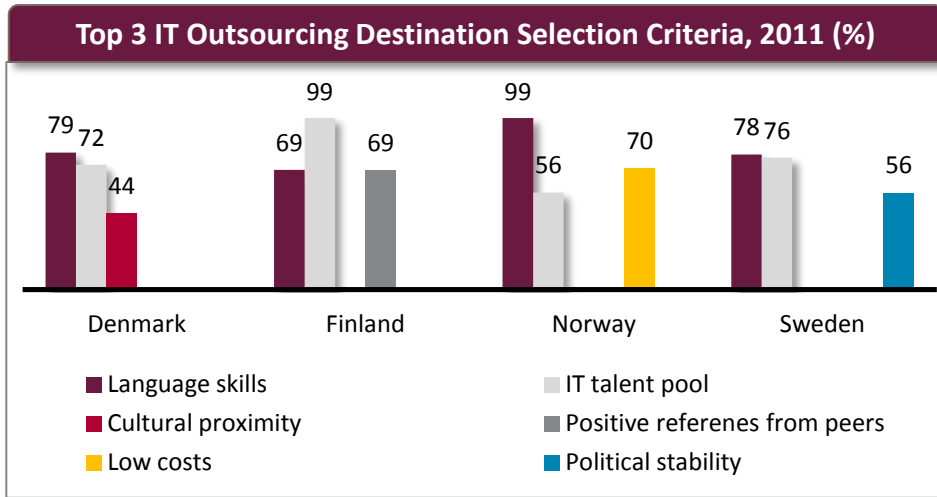
Software industry as main outsourcing industry – Web services are the ones mostly outsourced



1. Information Technology Outsourcing
Source: Pan-European IT Outsourcing Intelligence Report, 2011

Norway – IT Outsourcing market trends (2/3)

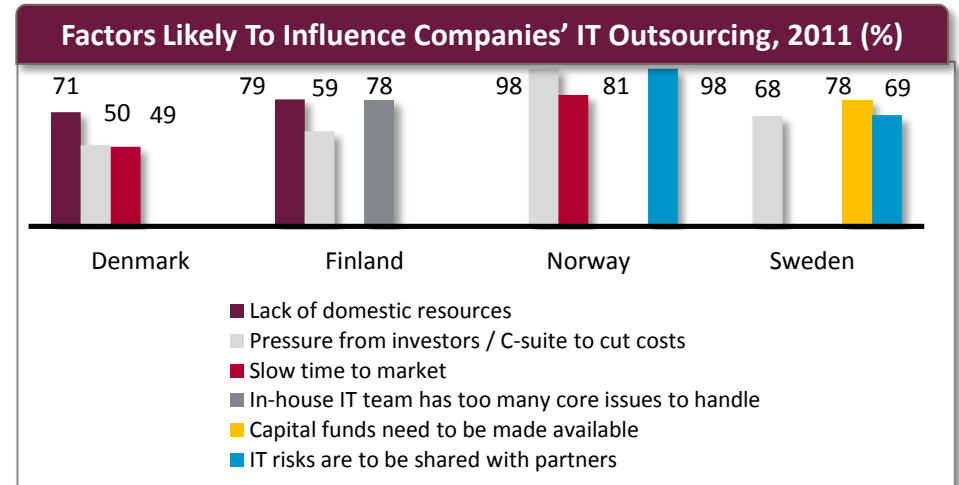
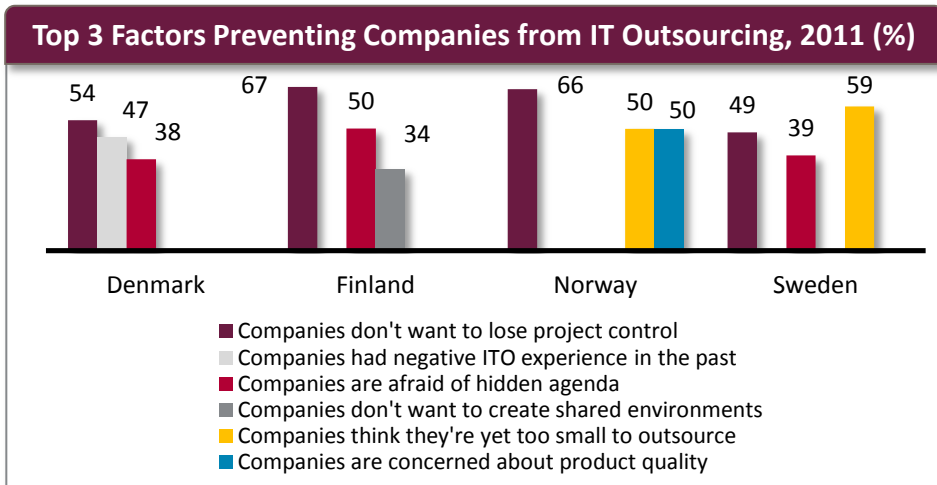
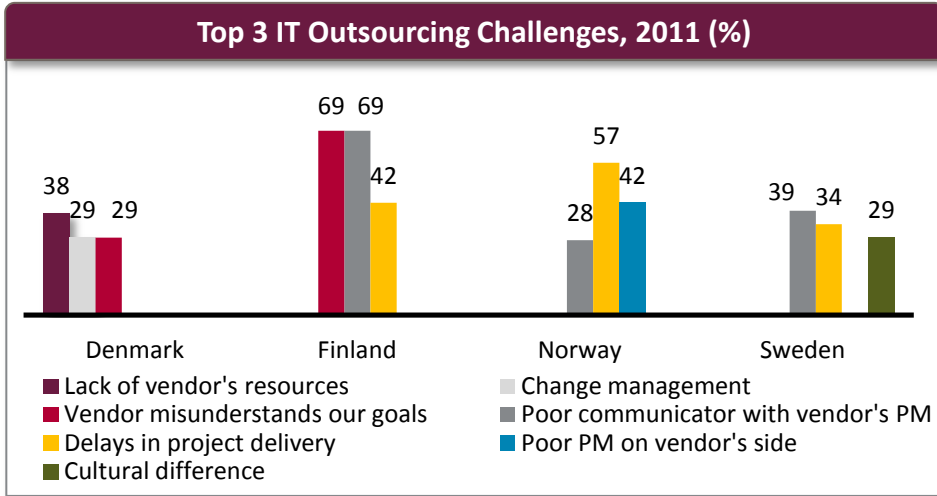
Experiences in similar projects and references from peers are key success factors for outsourcing relationships



Source: Pan-European IT Outsourcing Intelligence Report, 2011

Norway – IT Outsourcing market trends (3/3)

Successful ITO-relationships require project management and communication skills



Source: Pan-European IT Outsourcing Intelligence Report, 2011

Norway – IT Outsourcing market key trends

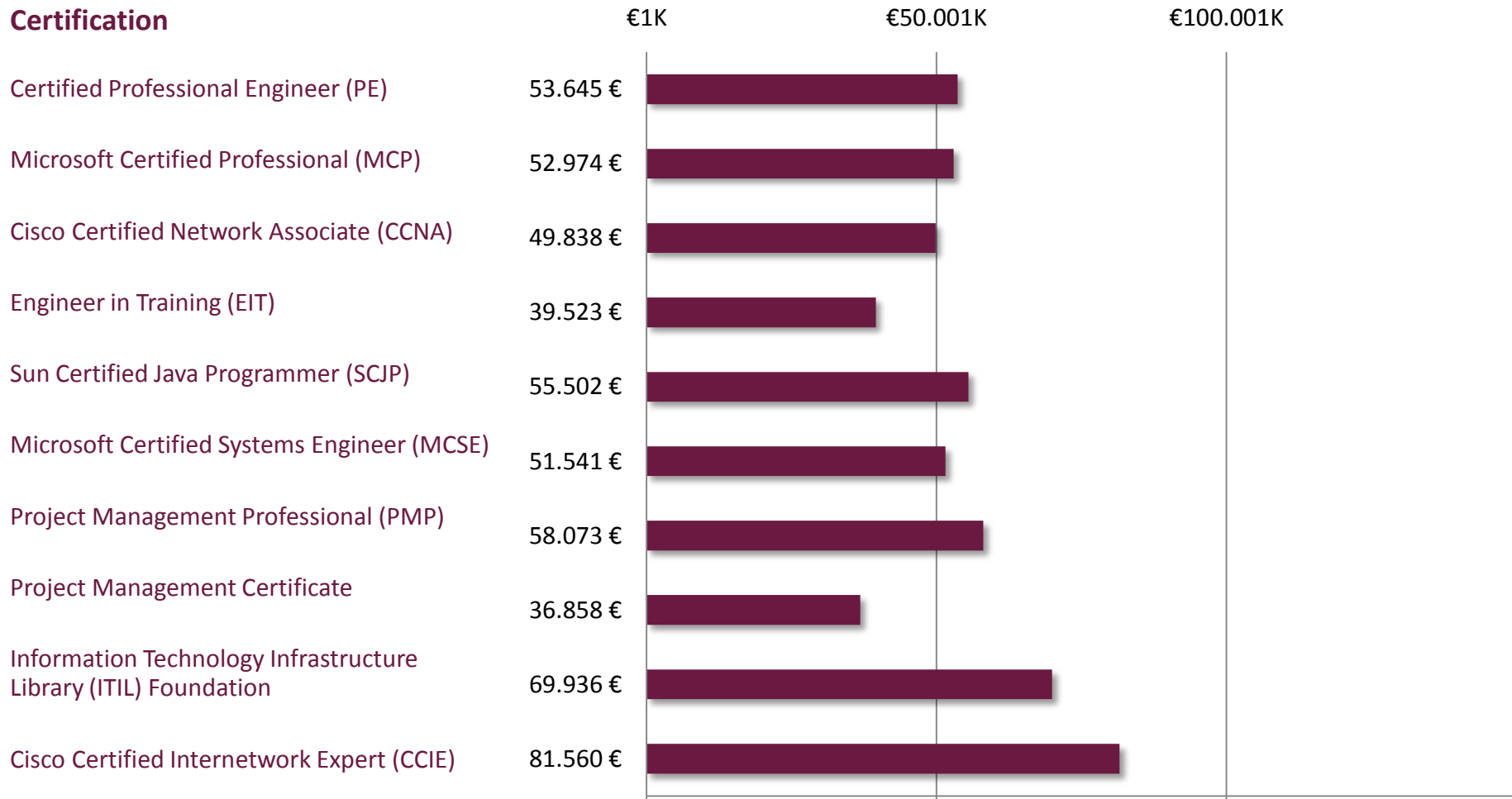
Web services are in high demand

- Ca. 40% of the ICT companies outsource certain tasks, thereof 40% of the companies have more than 3 years of outsourcing experience
- **Outsourcing destinations:** Nearshore (60%), Offshore (40%)
- **Outsourced areas of expertise:** Web (e.g. Web 2.0, Java, Microsoft ASP, etc.), Mobile, Enterprise (e.g. J2EE, C#, etc.), SaaS / Cloud (20%)
- **Top 3 outsourcing factors:** shortage of domestic IT skills and resources, reduce operation costs, focus on core competence
- Factors in terms of their importance for choice of outsourcing destination:
 - very important: **available IT talent (100%), language skills (75%),** political stability (60%), cultural proximity and economic stability (both 50%)
 - Somewhat important: **positive reference from peer companies (75%),** legal system and IP protection maturity (75%)
- 40% of the ICT companies find outsourcing partners through peer references

Source: IT Sourcing Europe (2011); <http://de.slideshare.net/itsourcingeuropa/norway-ito-intelligence-report-2012>

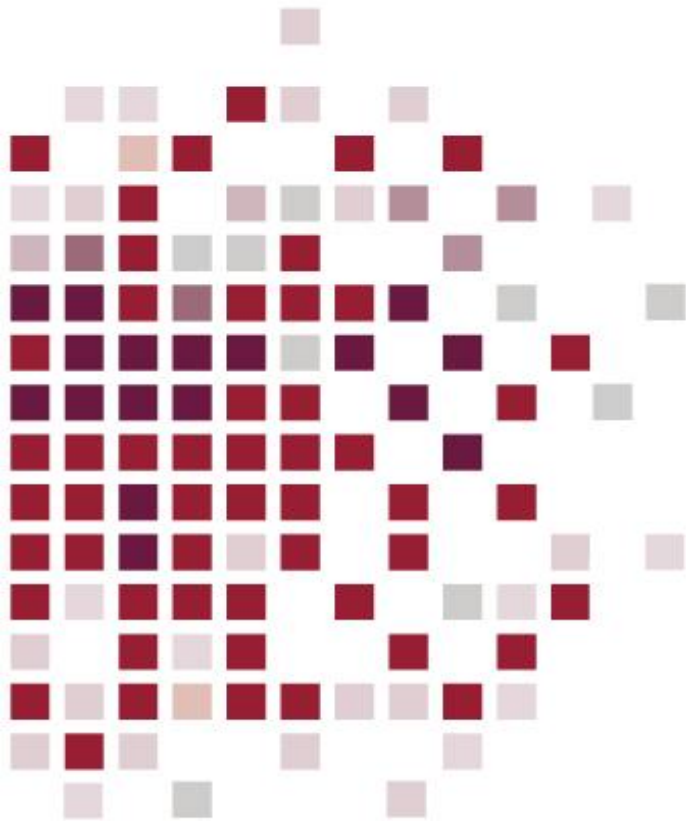
Norway – Salary overview by certifications

Median salaries (per year) by certification – ranging from EUR 50,000 to 80,000



Source: Payscale.com

Agenda



1. ICT Market
2. Software Market
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5. **Key Success Factors for Exporting**

Norway – Key Success Factors for Exporting

Marketing & Positioning

- **Vertical specialization (industry focus)**
- **Specialization on SME segment**
- Ability to communicate customer value and ROI
- **A professional web presence and good market visibility**
- Innovative business model
- Investing into **market intelligence**
- **Norwegian / international References** (Norwegian companies demand for references from peers)
- Competitive and transparent pricing: bid for small projects (<200,000€)
- Focus on specific nearshoring / offshoring services (e.g. web design / development)

Norway – Key Success Factors for Exporting

Quality & Processes

- **Quality management standards, methodologies and process models:** CMMI, ISO, RUP, Agile Methods, SCRUM, Six Sigma, ITIL
- Customer education (SMEs): how to use offshoring effectively by applying suitable models and processes
- Knowledge of evaluation, selection and purchasing procedures
- Compliance with quality, deadlines and budget requirements
- Certifications: technologies, project management, quality management
- **Professional project management: continuous work tracking and reporting**
- Professional HR management (motivation, skills management): **availability of top IT talent**
- **Provision of dedicated teams**
- Norwegian companies seek an **IT talent pool**: University alliances and cooperation with academia in order to ensure skill alignment and sustainable recruitment

Norway – Key Success Factors for Exporting

Technology & Capabilities

- Ability to support client with evaluation, project preparation and requirement specification; technical documentation
- Measures to ensure security and data protection
- Integrated outsourcing services for SMEs: combination of IT consulting and outsourcing services with trainings and success-based fees and a local key account
- **Target industries:** Software, Mobile
- Most sought-after skills:
 - **web services**, mobile, enterprise, Saas / Cloud
 - Software developers and Data Technicians
- **Language skills** and cross-cultural trainings: English language capabilities
- High communication-skills required for collaboration



Thank you!!

Contact:

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