VINNOVA and Challenge-driven Innovation

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Sweden – Brazil
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The Swedish Innovation System
Characteristics

- In relation to size Sweden invests much resources to education, R&D and innovation
- Sweden has a relatively high share of well educated people
- Sweden performs well when it comes to scientific production as well as technology production
- According to EIS and World Economic Forum, Sweden ranks among the top countries when it comes to innovation and competitiveness

⇒ However, there are weaknesses and threats
Source of international success
Multinational companies of Swedish origin

ABB | AGA | AKZO NOBEL | ASSA ABLOY

Atlas Copco | AstraZeneca | Autoliv | biovitrum

EF | Electrolux | ERICSSON | GAMBRO

H&M | IKEA | KARO BIO | metro

Nordea | OM | SAAB | SANOMAK

SCA | SCANIA | SEB | SECURITAS

Skandia | SKANSKA | SKF | STORAENSO

STF | TeliaSonera | Tetra Pak | VOLVO
Success attracts industry World leaders

Examples of foreign investments in technology in Sweden:

- Accenture
- Atmel
- Bellnet
- CSR
- Cap Gemini
- Cisco
- Comba Telecom
- Compaq
- EDS
- Electronic Arts
- HP
- Huawei Technologies
- Finisar Corporation
- Flextronics
- Google
- IBM
- Infineon
- Intel
- Linksys
- LG
- Matsushita
- MIC
- Microsoft
- Motorola
- National Semiconductor
- Nexthaus
- Nokia
- NTT DoCoMo
- Philips
- RIM
- RSA Security
- Samsung
- Sasken
- Sharp
- Siemens
- SIRF
- Sony
- Sun Microsystems
- Sybase
- VIA Technologies
- Yokogawa Electric
- Vodafone
- Zi Corp
- ZTE Corporation
Total R&D expenditure in relation to GDP
2007

Source: OECD, MSTI 2010

Percent of GDP

Business enterprise
Higher education
Government sector
Other organisations
Swedish research and innovation in figures

- **Switzerland**
- **Sweden**
- **Switzerland**
- **2. Switzerland**
- **2. Switzerland**
- **2. Switzerland**
- **3. Finland**
- **3. Finland**
- **3. Singapore**
- **4. Germany**
- **4. Israel**
- **4. USA**
- **5. Great Britain**
- **5. Japan**
- **5. Germany**
- **6. Denmark**
- **6. USA**
- **6. Japan**
- **7. Austria**
- **7. Denmark**
- **7. Finland**
- **8. Luxembourg**
- **8. Korea**
- **8. Netherlands**
- **9. Belgium**
- **9. Canada**
- **9. Danmark**
- **10. Ireland**
- **10. Germany**
- **10. Canada**

**European Innovation Scoreboard 2009**
1. Switzerland
2. Sweden
3. Finland
4. Germany
5. Great Britain
6. Denmark
7. Austria
8. Luxembourg
9. Belgium
10. Ireland

**Global Innovation Scoreboard 2008**
1. Sweden
2. Switzerland
3. Finland
4. Israel
5. Japan
6. USA
7. Denmark
8. Korea
9. Canada
10. Germany

**Global Competitiveness Index 2010/2011**
1. Switzerland
2. Sweden
3. Singapore
4. USA
5. Germany
6. Japan
7. Finland
8. Netherlands
9. Danmark
10. Canada

**Swedish Research and Innovation in Figures**

- **Total Swedish R&D**
- **Total government R&D**
- **Government needs-driven civil R&D**
- **VINNOVA’s grants to R&I**

**Sources:**
1. SCB (forecast for 2008)
2. VINNOVA
3. SCB (forecast for 2008)
4. European Innovation Scoreboard 2008

**Key Figures:**
- **118 billion SEK**
- **29.5 billion SEK**
- **3.5 billion SEK**
- **3.7% of GDP equivalent to annual R&D investment in Sweden**
- **6.5% of state R&D goes to needs-driven R&I**
Governmental R&D funding in Sweden distributed by Government agencies, 2009

Governmental R&D-funding (excluding Public Research Foundations): 28270 MSEK = 0.93% of GDP

<table>
<thead>
<tr>
<th>Ministry of Education and Research</th>
<th>Ministry of the Environment</th>
<th>Ministry of Health and Social Affairs</th>
<th>Ministry of Enterprise, Energy and Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities</td>
<td>Swedish Research Council</td>
<td>Swedish Council for Working Life and Social Research</td>
<td>VINNOVA</td>
</tr>
<tr>
<td>13270 MSEK 46.9 % of funding</td>
<td>4029 MSEK 14.3 % of funding</td>
<td>849 MSEK 3.0 % of funding</td>
<td>1846 MSEK 6.5 % of funding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>392 MSEK 1.4 % of funding</td>
<td></td>
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<tr>
<td>Energy</td>
<td>Space</td>
<td>Other civilian R&amp;D</td>
<td>Defence agencies</td>
</tr>
<tr>
<td>1147 MSEK 4.1 % of funding</td>
<td>776 MSEK 2.8 % of funding</td>
<td>3606 MSEK 12.8 % of funding</td>
<td>2355 MSEK 8.3 % of funding</td>
</tr>
</tbody>
</table>

Source: Statistics Sweden, Statliga anslag till forskning och utveckling 2009
VINNOVA is Sweden’s innovation agency

VINNOVA invests in research and develops Sweden’s innovativeness for sustainable growth
Why we do that?

The aim is competitive businesses, researchers and regions in Sweden
Short about VINNOVA

- VINNOVA = Swedish Governmental Agency for Innovation Systems
- Established January 1, 2001
- Under the Ministry of Enterprise, Energy and Communications
- Director General: Dr. Charlotte Brogren
- Budget approx. SEK 2 billion (appr. 200 M€) - doubled through co-financing
- VINNOVA’s R&D appropriation for 2009 was equivalent to 6.5% of the national public R&D funding
- Around 200 employees
- Offices in Stockholm and Brussels
2,117 million kronor invested by VINNOVA in Swedish R&I in 2010
VINNOVA’s role
Connect & Catalyse
World Challenges

- Financial crisis
- Economy crisis
- Globalisation
- Climate change
- Ageing population
- Health
- Safety & Security
- ...........

Options for reduced CO₂-emissions

Challenge Driven Innovation!
Social challenges demanding new solutions
Social challenge

Implement
Create integrated solutions, testing, value creation

Develop and integrate solutions
Processes, products, services

Solution
Processes, services, products

Need$_1$

Need$_2$

Need$_3$

Need$_n$
4 Global Social Challenges

Health, wellbeing and medical care

Competitive industry

Download from www.vinnova.se
Solutions with global business opportunities for Swedish companies are the basis for long-term, sustainable growth.
Time Schedule 2011

Q1 2011

• 1st CFP opened 29th of April

Q2 2011

• CFP closes the 1st of September

Q3 2011

• Projects can start November

Q4 2011
Consortiums of big and small companies from different sectors, cross-disciplinary research from Universities and Institutes, public sector, non-profit organization or branch organizations.

Who can apply?
Global demand – Export opportunities
Thank you for your attention!

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