

ADeBar –

Early recognition of skill needs by continuous observation at work
and in companies

Future skill needs in renewable energies identified in an integrated approach: results of the ADeBar project

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Future skill needs for the green economy
CEDEFOP, Thessaloniki, 6 – 7 October 2008

Outline of presentation



Concept of the project „ADeBar“ / FreQueNz network



The renewable energy sector in Germany:
Basic economic and structural data



Company strategies in recruiting skilled personnel

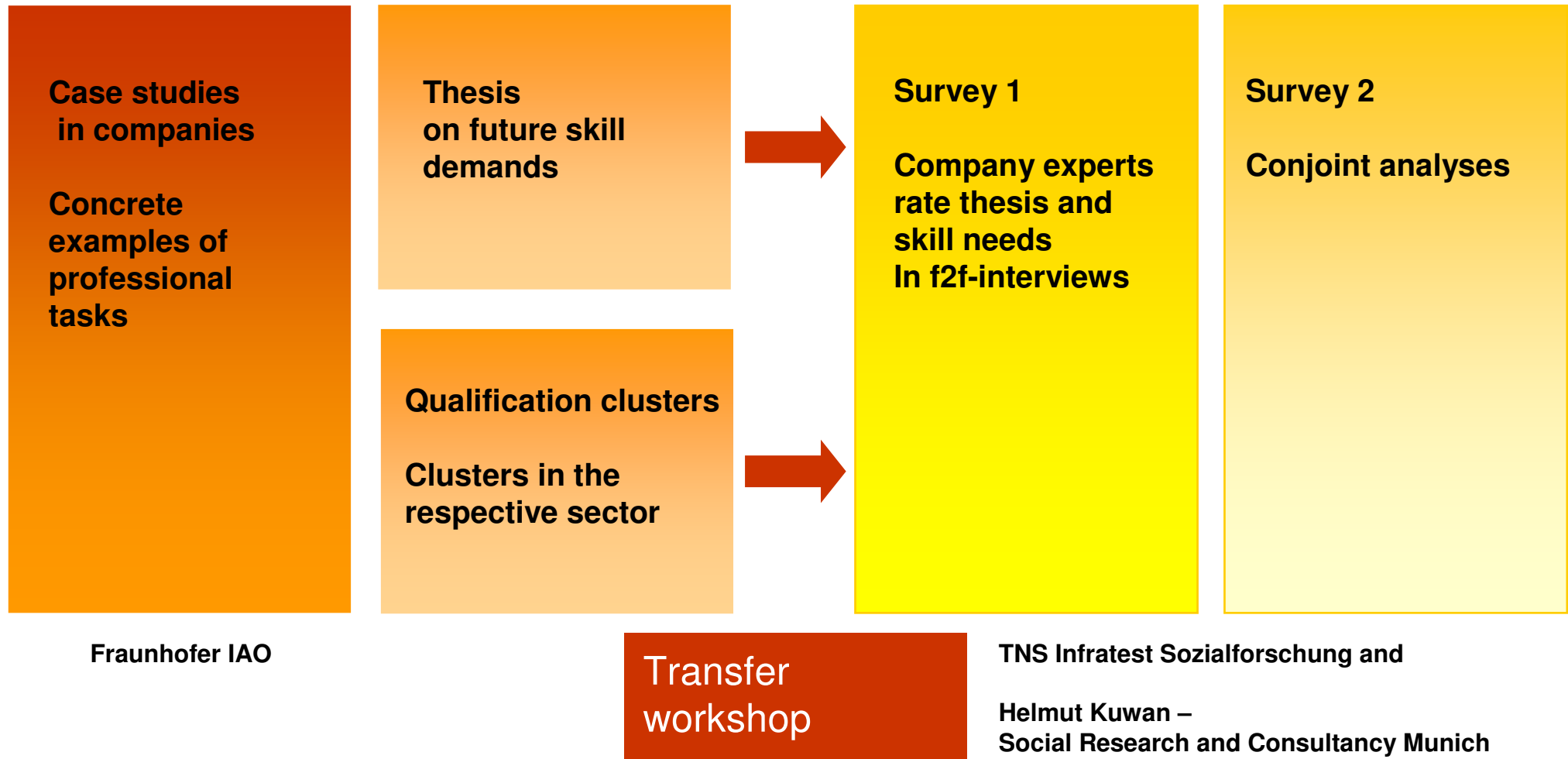


General trends of skills development



Present and future skill needs in the renewable energy sector

Concept of the ADeBar-project



Case studies in companies

**Interview 1: Managing director /
Main contact person**

Interview 2: Line manager

**Interview 3: Skilled worker in
proceeding sector**

**Company information
(Size, employees, sectors, customers,
co-operation partners, etc.), current topics**

Contribution and input to typical task

**Description of
working system**

**Description of
workplace**

**Interview skilled worker:
Concrete description of a current
typical task**

**Overall business
process**

**Cooperation
structure**

**Interview 4: skilled worker,
subsequent sector**

**Interview 5: Company expert for
education and training**

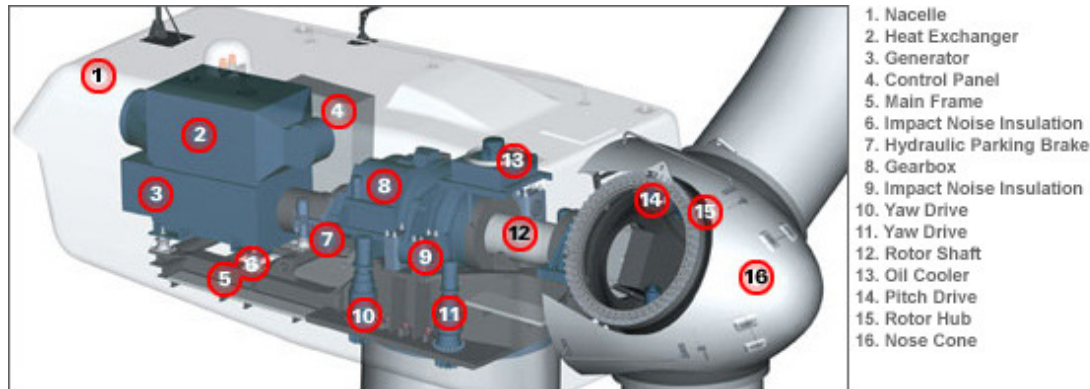
**Interview 6: Final interview with
main contact person**

**Feed-back to company,
case-study report**

Practical example:– Case study in the wind energy sector: „Service-Technician“

Concrete Description of a current typical task :

Stop of wind engine (WE) by failure or breakdown of an electronic device

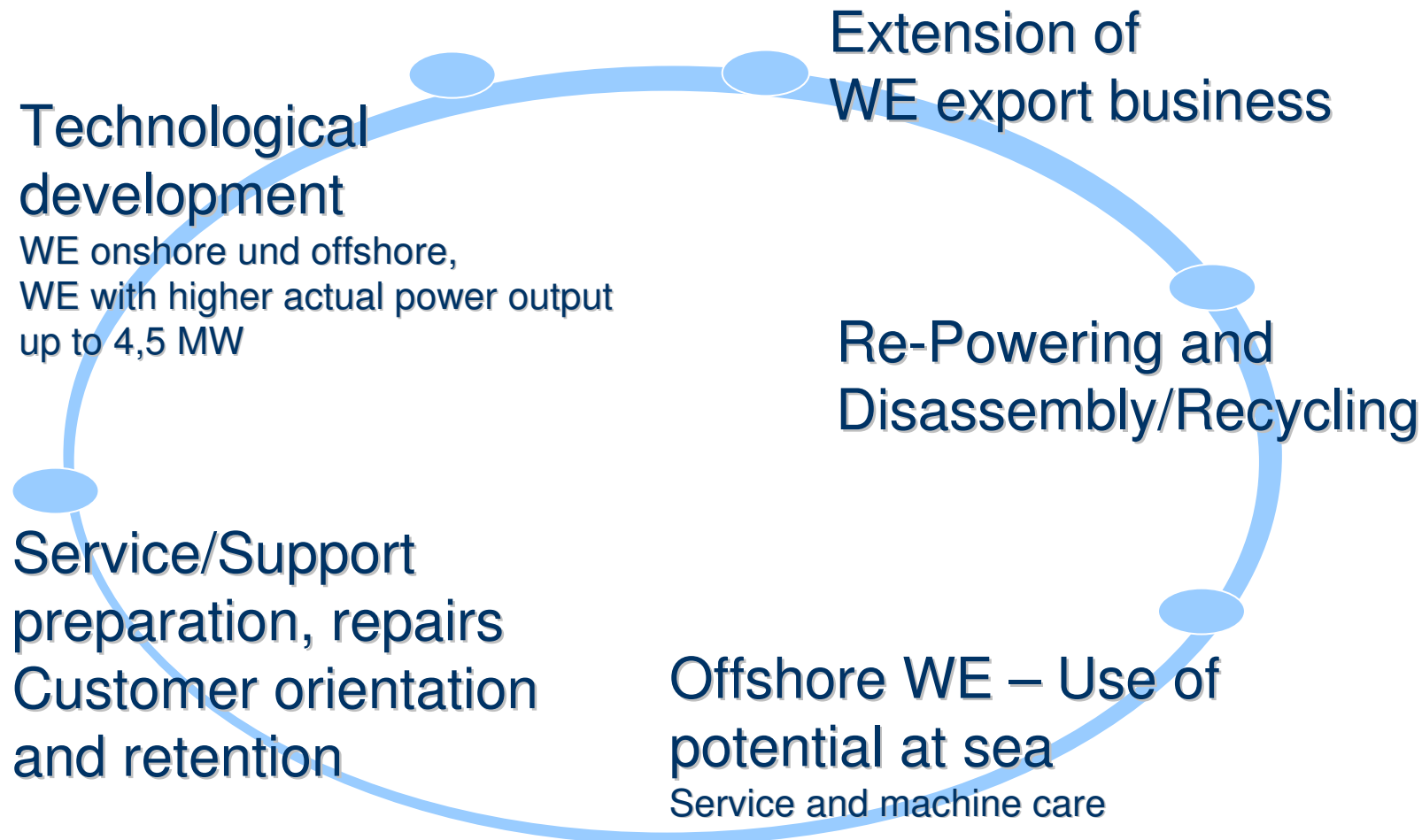


**Crucial factor:
Actual technical availability of WE**

**Remote fault diagnosis,
technical support,
statistical analyses and documentation,
continuous inspections,
preventive monitoring,
preventive service**

**Tasks and skill needs of
„Service-Technician
wind energy“**

Impetus for new skill needs



Concept of ADeBar company survey

Aim of quantifying company survey

- Verification of case study observations: Which developments are company specific and which developments are general trends?

Sample

- Basis: Markus list for companies in the energy sector,
- Systematic internet research in the following sectors: solar energy / photovoltaic, wind energy, biomass, hydro power, geothermal energy
- Survey in 334 companies

Target person

- Most competent contact person in the company
- If necessary: Change target person of the interview

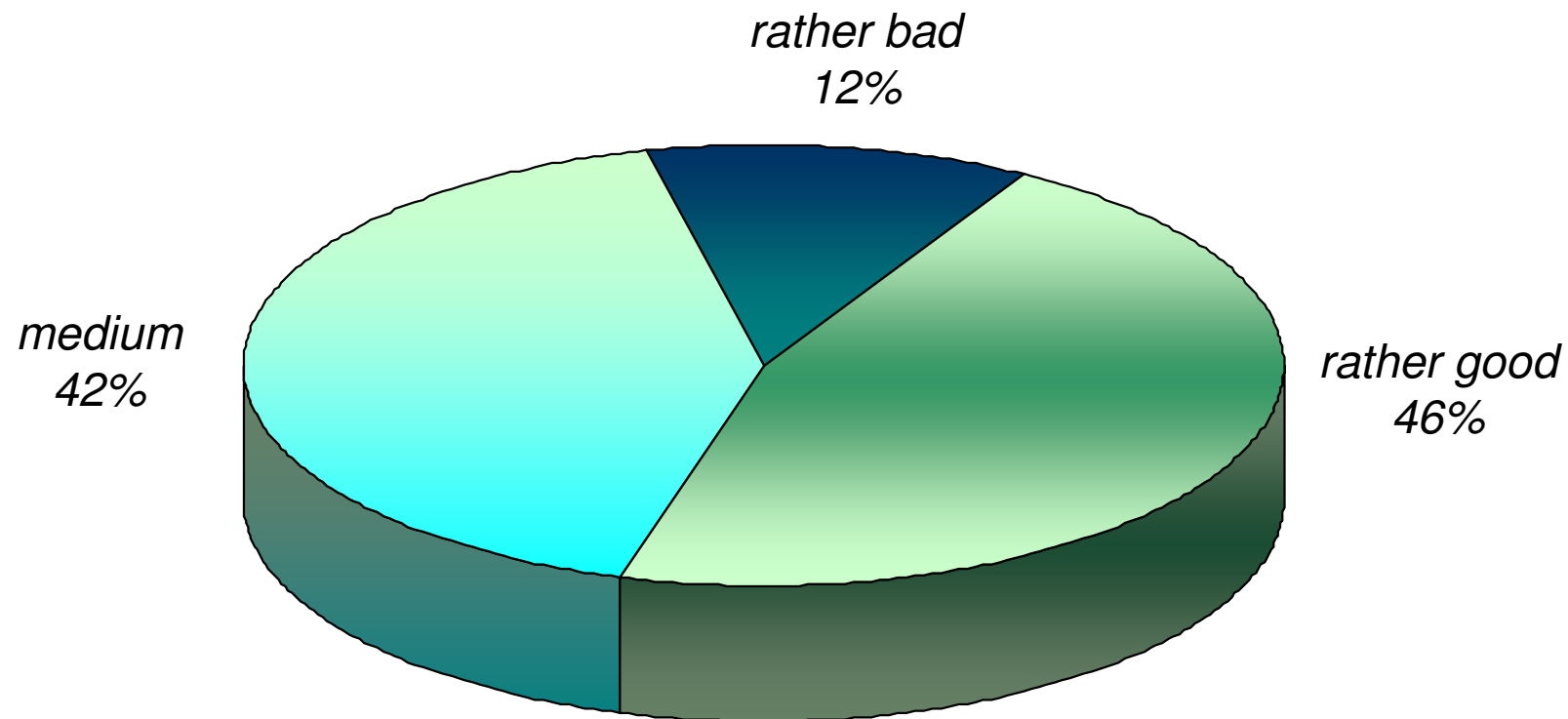
Survey method and survey period:

- Face-to-face-interviews
- Renewable energies: Early summer of 2004

Economic situation of companies in the renewable energy sector in Germany

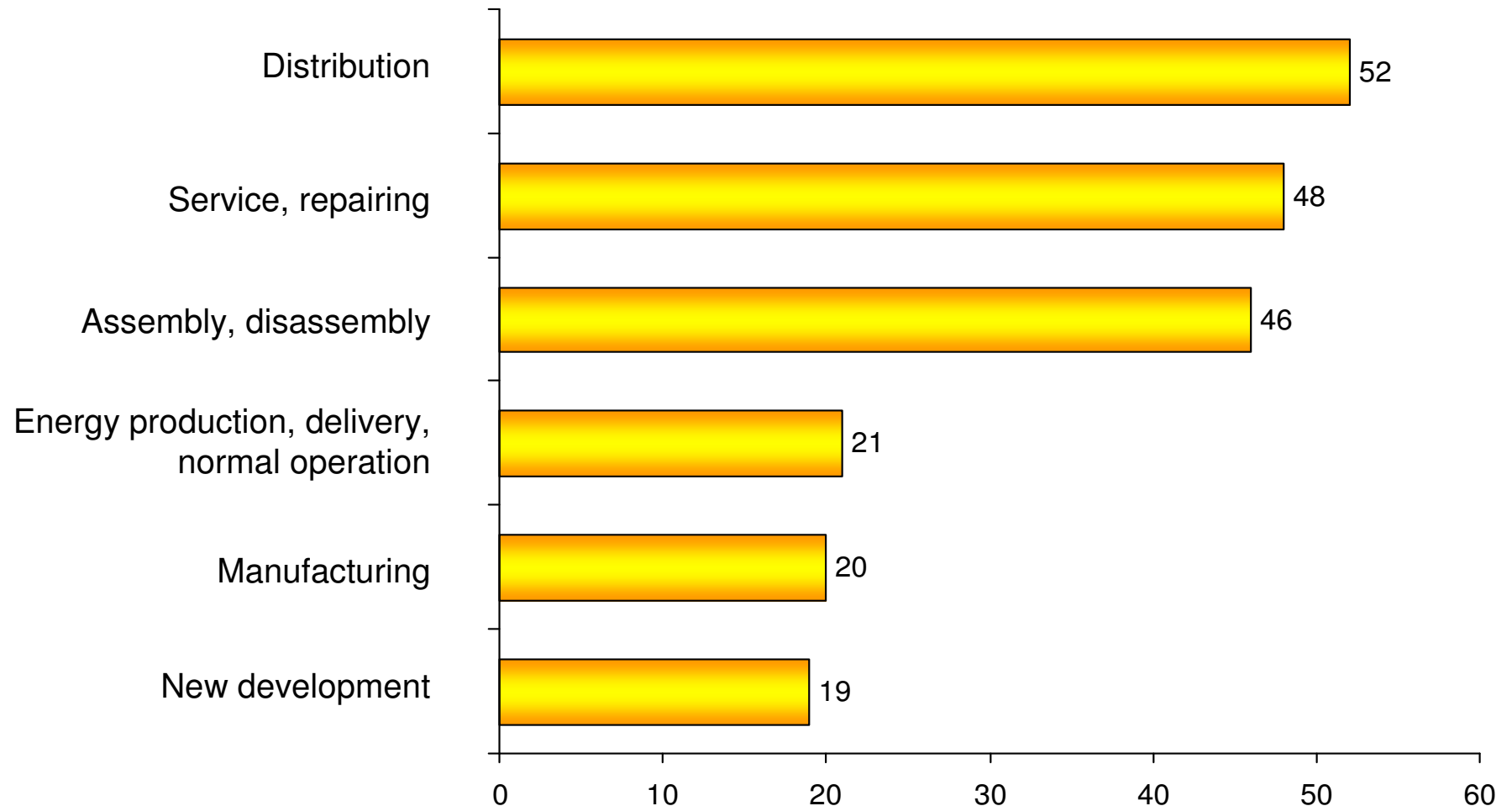
Basis: Companies with valid answers (n = 329)

Economic situation of the company is...



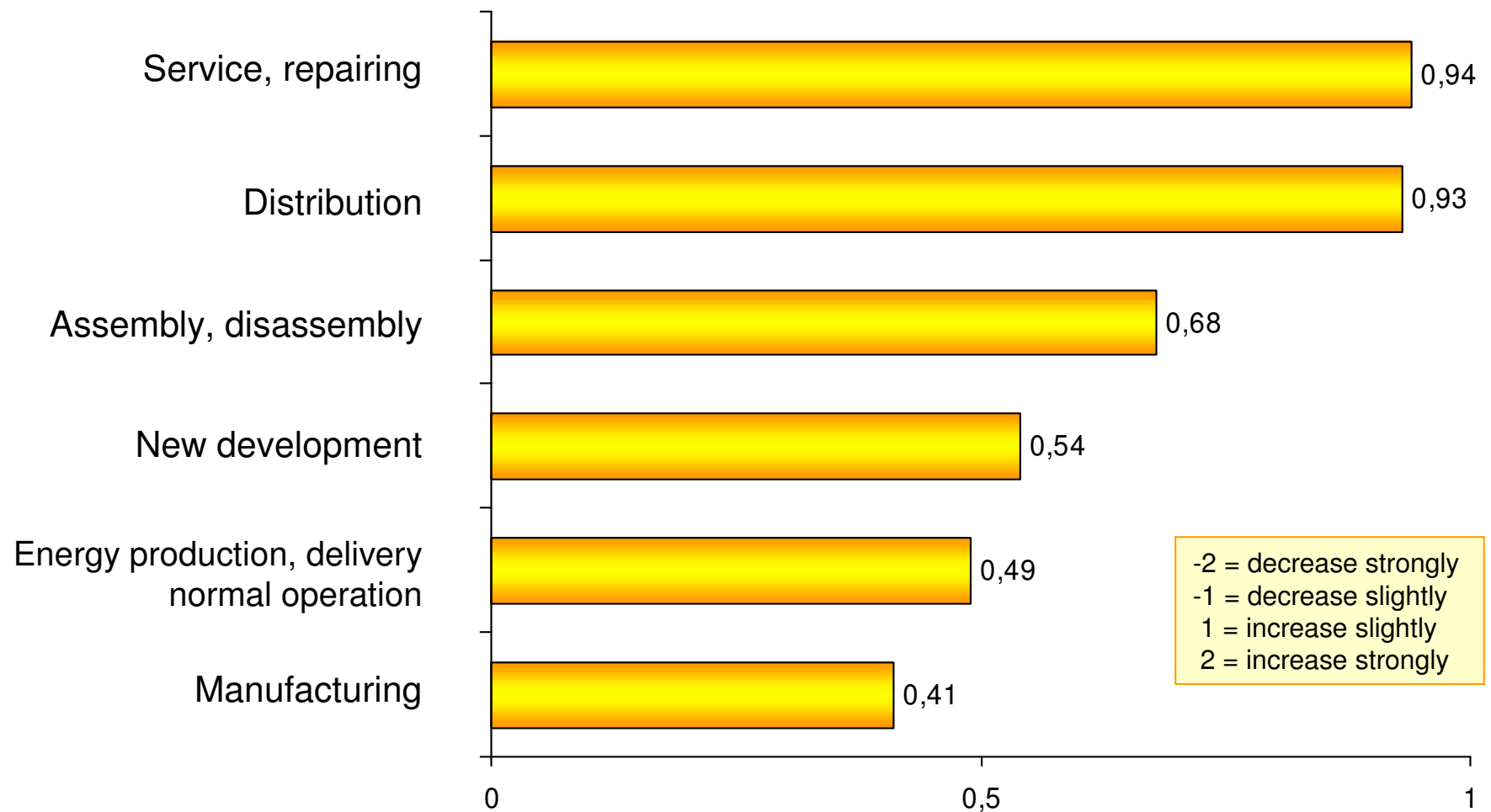
Present core business area in the renewable energy sector in Germany

Basis: Answers from 334 company experts, multiple answers in per cent



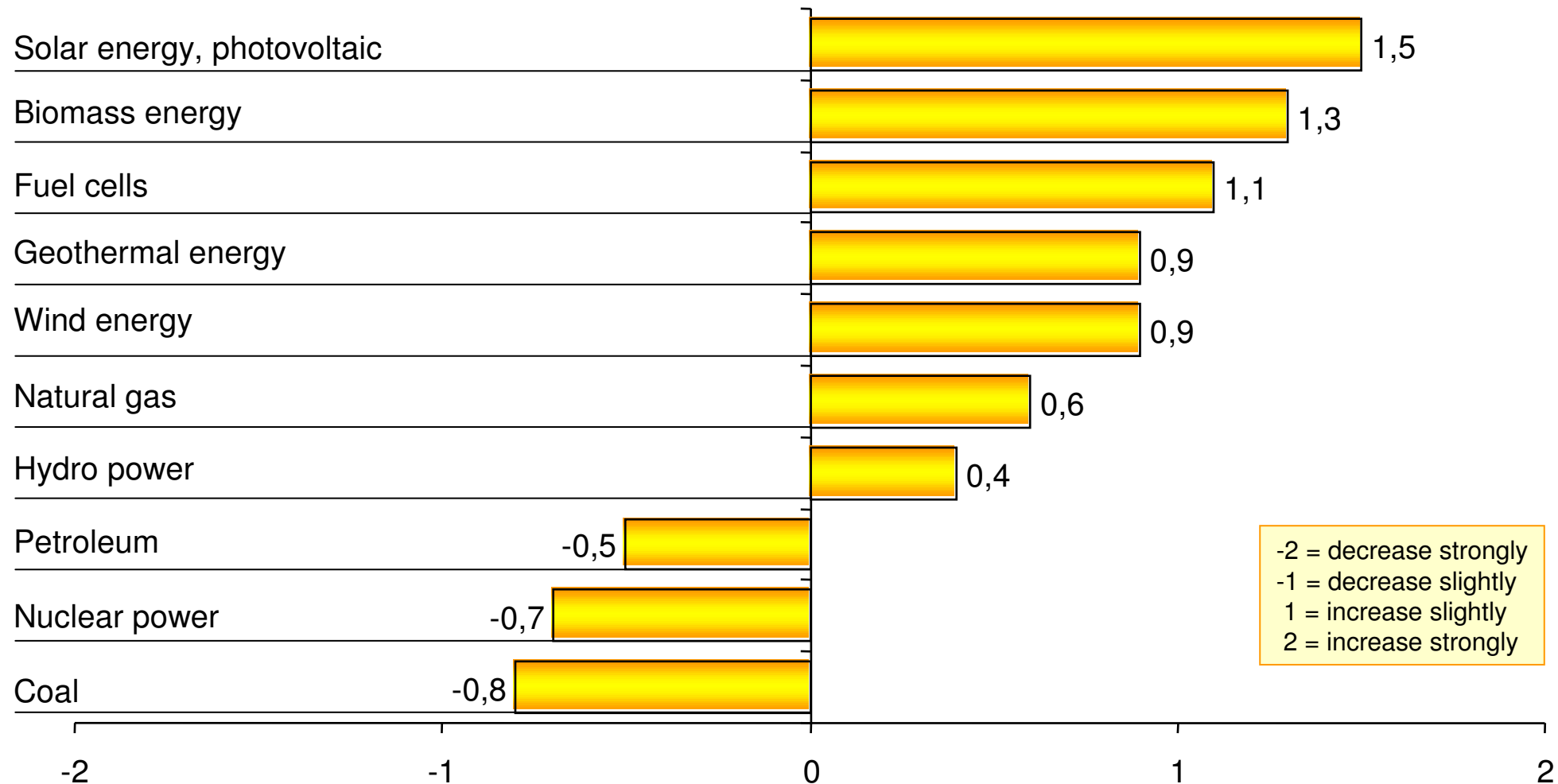
Expected development of core business areas in the renewable energy sector in Germany within the next 3 years

Basis: Answers from 334 company experts, deviation from scale average



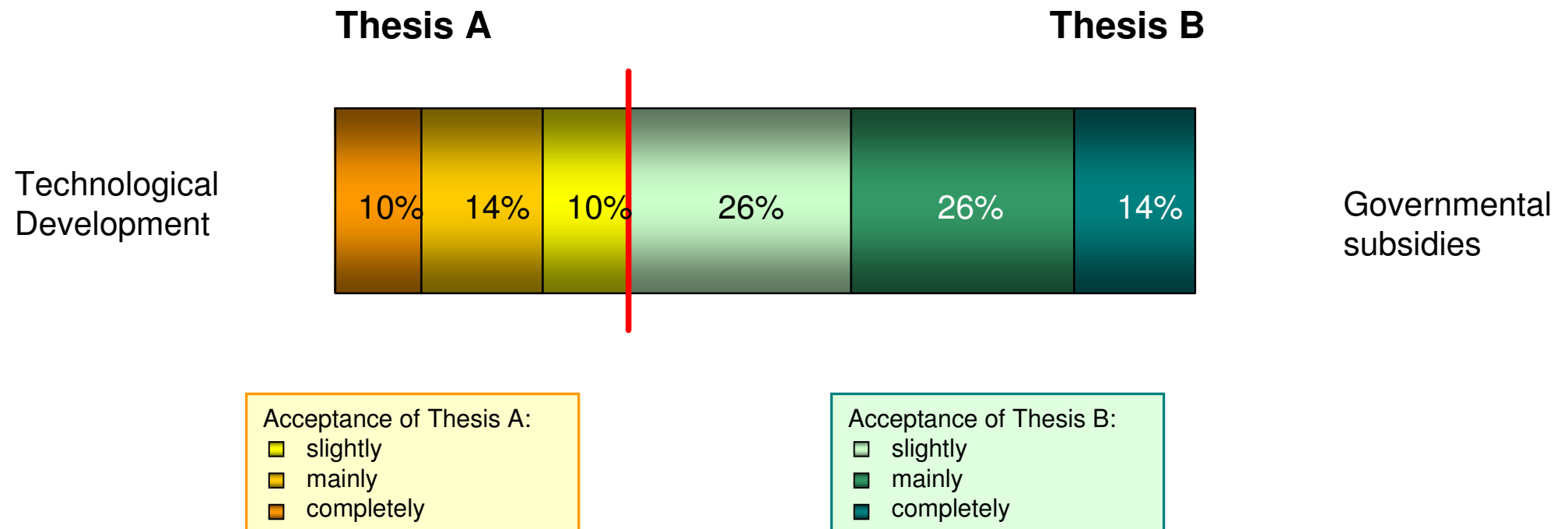
Expected development of energy sources within the next 3 years

Basis: Answers from 334 company experts, deviation from scale average



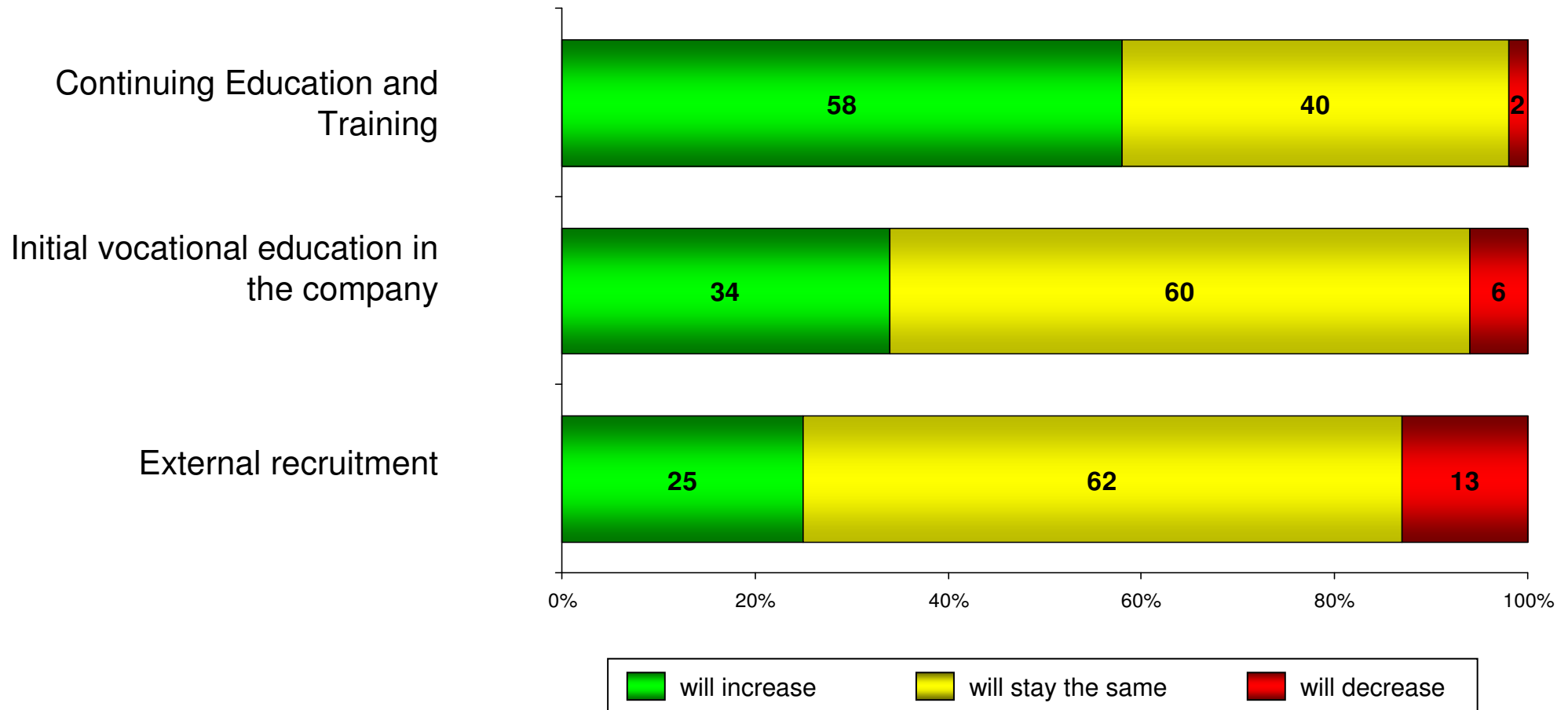
Crucial factor influencing market success of renewable energies in Germany until 2010

Basis: Companies with valid answers in %



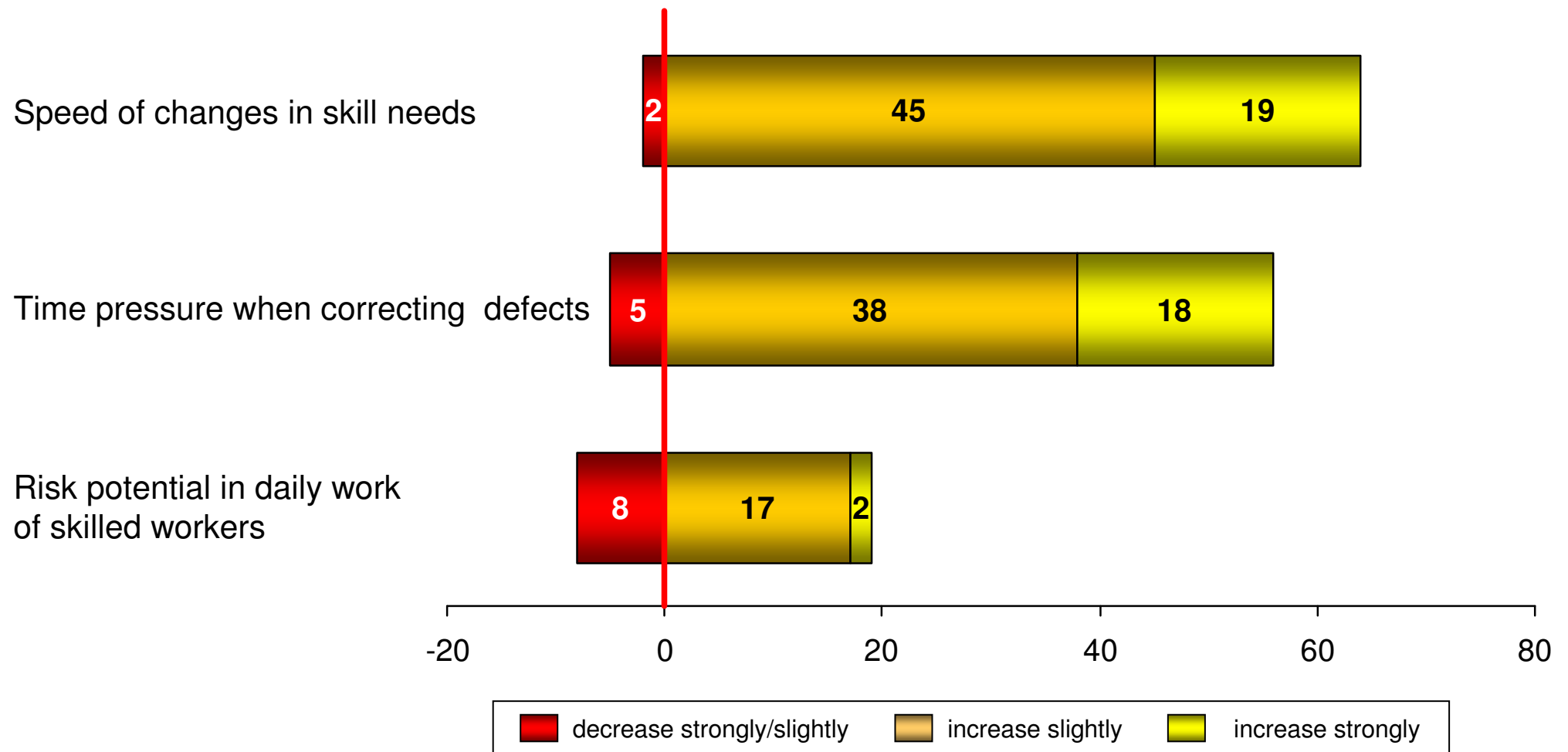
Company strategies in recruiting skilled personnel in the renewable energy sector in Germany within the next 3 years

Basis: Companies with valid answers to the respective question – answers in per cent



Expected changes in the renewable energy sector within the next 3 years

(Changes in in % - „will stay the same “ and missing values not reported)



Case study results on future skill needs for „wind energy technician“

Technical skills

„Actual technical availability“,
new technological skills,
application of IC-technologies,
specific (equipment-)software skills (e.g.
Visopro), wind energy onshore und offshore

Professional skills

Fault management and prophylaxis,
complementary skills (mechanics /
electronics), electronical documentation,
situational details, interpretation of internet
production logs

Organisational skills

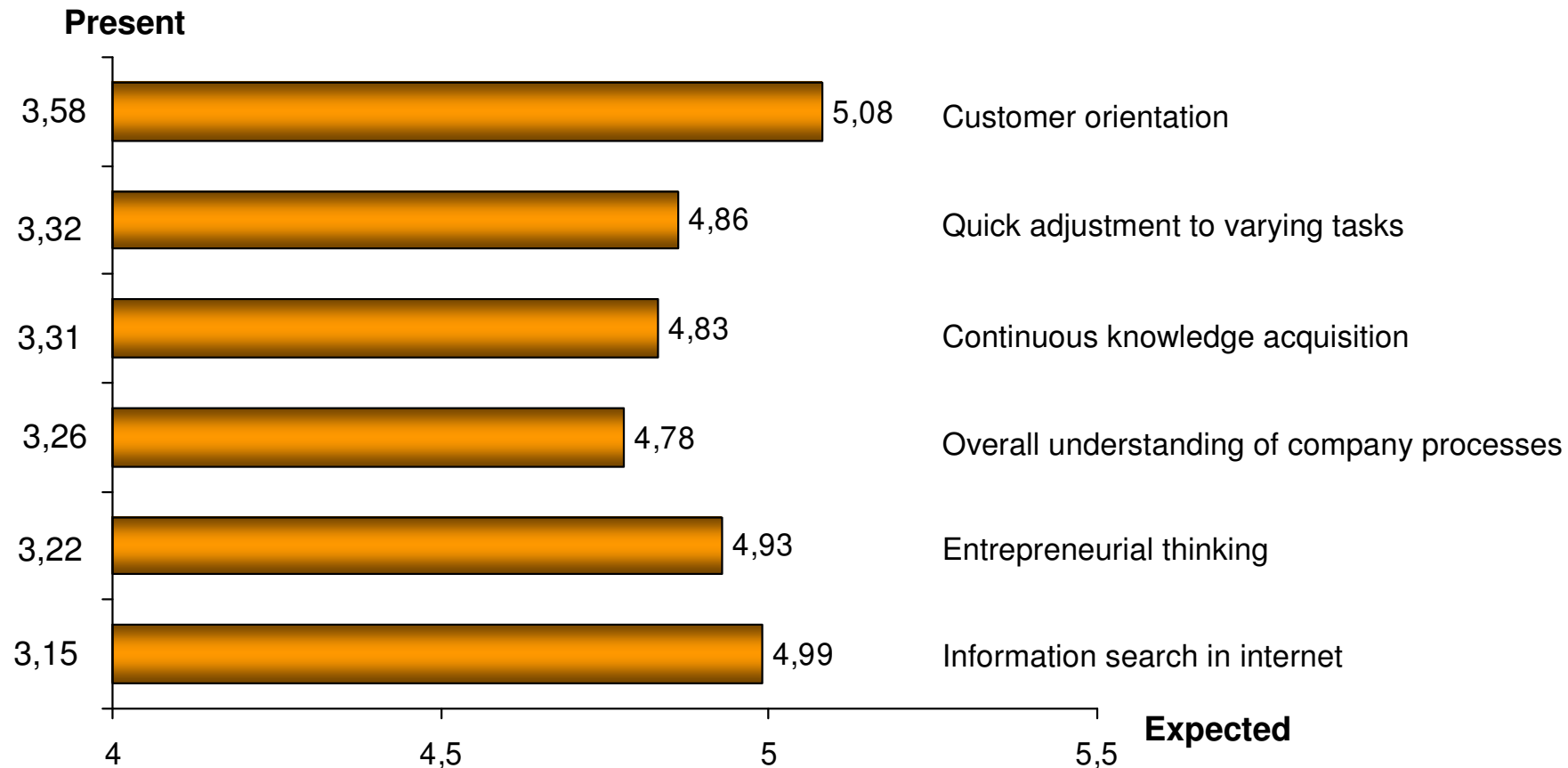
Maintaining safety standards, comprehending
overall processes, changing points of use,
network human-electronics

Social skills

Very high integration and cooperation skills,
ability for teamwork, high mobility, intercultural
skills, temporary leadership skills

Expected changes of general skill needs in the renewable energy sector for skilled workers

Present average values and expected changes in the next 3 years – Part A



Present skill needs

4 = very high

1 = very low

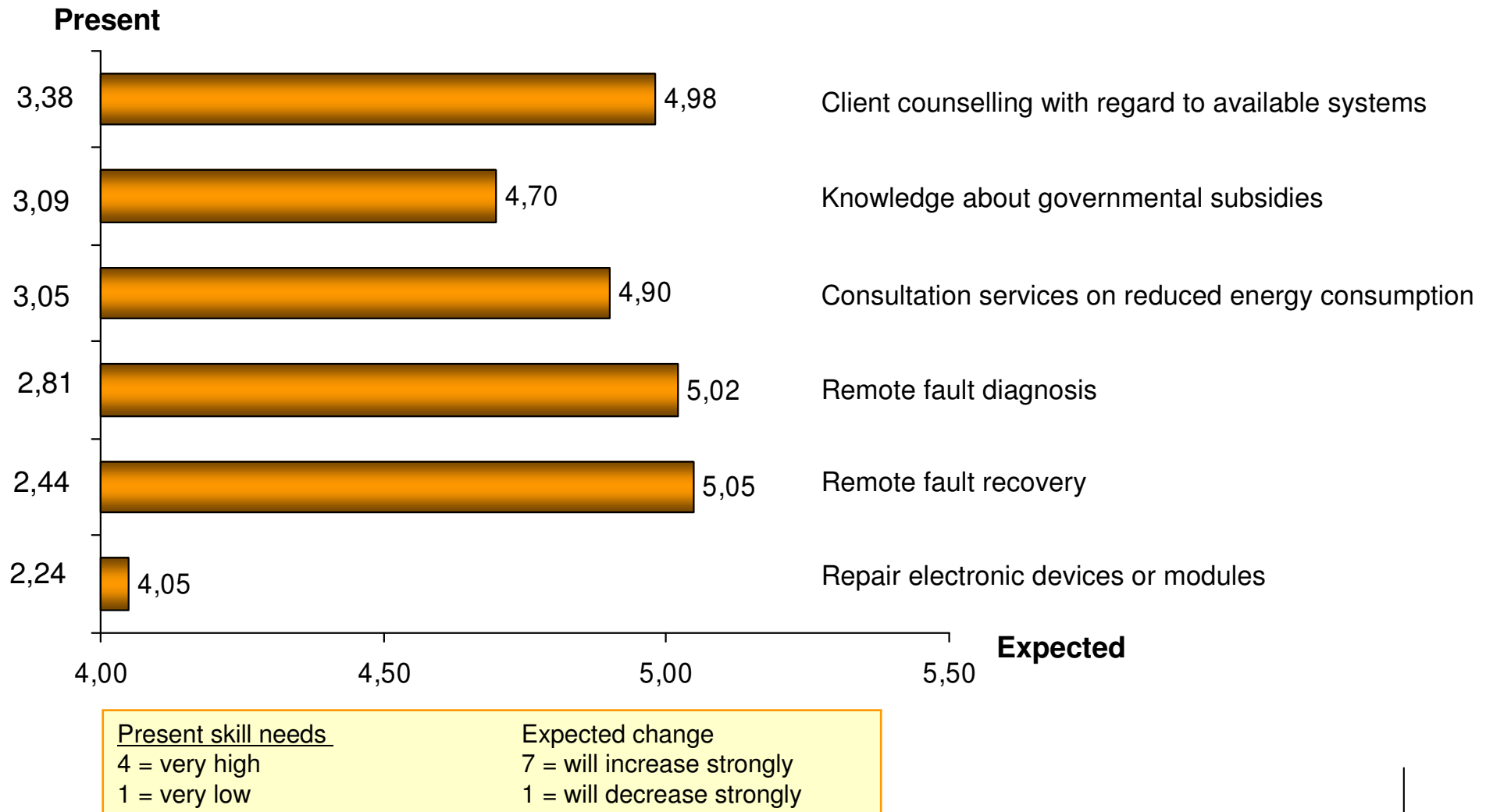
Expected change

7 = will increase strongly

1 = will decrease strongly

Expected changes of specific skill needs in the renewable energy sector for skilled workers

Present average values and expected changes in the next 3 years – Part B



▶ Thank you for your attention!

▶ More information on FreQueNz-Network:

See www.frequenz.net

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