Enhancing Regional Employability through Quality Assurance

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DAAD-HRK Conference, Bonn, May 19, 2007
Siemens: Key attributes

Since 1847
- International
- Innovative
- Focused on electrical engineering and infrastructure solutions
- Oriented toward sustainability
- Socially responsible

In 2006
- 475,000 employees in 190 countries (66% outside G.)
- Sales of € 87.3 billion (81% outside Germany)
- Active in six business areas; € 5.7 billion R&D spending
- 36% of ww employees have a university degree,
- 91% of new employees with a university degree hired outside Germany

Every hour, Siemens generates sales of €10 million
Success requires a highly qualified workforce: 36% of our employees have a university degree.

Structure depending on respective educational system and labor costs (Status 9/06)

In %
- Non-experts / no vocational training: 31%
- Other vocational training: 33%
- University degree: 36%
  - Thereof Engineers / natural scientist / PC scientist: 24%

Siemens worldwide:
- Total: 474,900
  - University degree: 161,100
  - Germany (w/o GER): 127,400
  - Europe: 73,700
  - North America: 30,400
  - Latin America: 69,800
  - Asia-Pacific: 12,500

Structure depending on respective educational system and labor costs:
- Non-experts / no vocational training: 15%
- Other vocational training: 51%
- University degree: 34%
  - Thereof Engineers / natural scientist / PC scientist: 28%

Germany (w/o GER):
- Total: 161,100
  - University degree: 55%
  - Germany (w/o GER): 41%
  - Europe: 25%
  - North America: 14%
  - Latin America: 34%

Europe:
- Total: 127,400
  - University degree: 55%
  - Europe: 45%
  - North America: 16%

North America:
- Total: 73,700
  - University degree: 55%
  - North America: 46%

Latin America:
- Total: 30,400
  - University degree: 55%
  - Latin America: 45%

Asia-Pacific:
- Total: 69,800
  - University degree: 55%
  - Asia-Pacific: 45%

Africa / Middle & Near East / GUS:
- Total: 12,500
  - University degree: 55%
  - Africa / Middle & Near East / GUS: 46%
The cyclical nature of corporate hiring patterns - Explained by market fluctuations

Hiring (university graduates, technical majors) follows the market and local needs.
Siemens closely interacts with universities and public research institutions

- Internships, theses, teaching appointments
- Awards, scholarships
- Bilateral and publicly funded joint research projects
- Intern/external visitors
- Symposia/workshops
- Exchange of personnel
- National/international research programs and structures
- Cooperation with industrial associations/governments
- Requirement profiles for engineers and scientists
- Donations and partnerships

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Education

Research and Development

Knowledge Sharing

Education and Research Policy
Quality assurance in an international labour market:

- Recruiting is local: in the country, for the country. But later international teams, delegation to a different country or just cooperations in virtual teams require an "international spirit".

- New curricula should be developed in close cooperation with industry or professional associations, taking into account the requirements of the labour markets.

- A constant monitoring of the teaching success using student and alumni feedback should be established.

- Programs should be accredited, accreditation organizations should closely cooperate to agree on standards and procedures (NQF).

- Universities should make use of the Bologna Process to reform curricula (Credit Points, output-orientation), and to provide employers with a meaningful Diploma Supplement.
ZVEI Survey among industry recruiters (2006): Initiatives to be taken by students

- Highest ranking for practical experience gained during internships (additional advantage: possibility of getting to know the student)
- Time spent abroad fosters independence and intercultural sensitivity, language proficiency is not the primary reason!
- Engagement in other activities is good training for soft skills
Some recommendations for universities: Talk to your “customers” (industry)

- Collect and analyze surveys with statements of managers or recruiters as carefully as scientific papers by your colleagues
- Define the set of skills and knowledge that your students should possess according to these requirements
- Use every opportunity to acquaint your students with the work environment, establish contacts with companies (internships, bachelor’s/master’s thesis)
- Facilitate international exchange by establishing cooperative arrangements with other universities to harmonize curricula and procedures
- Invite external experts to give presentations on business or social topics relevant for your students
- Teach students by giving them projects with specific goals

Thank you for your attention!