Perfect Practise – The dual study system
Who we are – Siemens Professional Education and its partners

Excursion – Schooling and the dual training system

What we do – A corporate view on the dual study system

Why we do it – the future of vocational education
Where we are - Siemens offers vocational training all over Germany

As at March 2014
Who we are - SPE is a central department of Human Resources

Managing Board

Sectors

- Energy
- Healthcare
- Industry
- Infrastructure & Cities

Cross-Sector Services

- Global Shared Services (GSS)
- Siemens Real Estate (SRE)
- Siemens Management Consulting (SMC)

Cross-sector Businesses

- Financial Services (SFS)

Separate Business

- Osram (OSR)

Corporate units

- Corporate Development
- Management Consulting Personnel
- Finance and Controlling
- Communications & Gov. Affairs
- Legal and Compliance
- Information Technology
- Corporate Technology
- top+ & Quality Management
- Corporate Supply Chain Management
- Data Protection
- Corporate Security Office
- Corporate Sustainability Office
- Human Resources

Siemens Professional Education (SPE)
Excursion: The historical development of the dual training system in Germany

- Introduction of vocational training was formed in the 1870’s in recourse to medieval guild training system with its three step curriculum (apprentice, journeyman, master)
- Crafts and vocational training was redesigned to fit the industry’s need for skilled workers
- In 1920 first “modern” vocational schools were introduced to increase the school graduates fitness for the job
- In 1969, the modern dual system started with the act on vocational training (BBiG), harmonizing the various different training and school systems in Germany
Excursion: The historical development of the dual training system in Germany

- **Dual education laid down by law**
  (act governing vocational training, apprenticeship regulations, curriculums)

- **Defined occupations requiring formal training**
  (e.g. Industrial Business Management Assistant, Electronics Engineer, Qualified IT Specialist)

- **Duration** of apprenticeship: 2 - 4 years
  (may be shortened by 6 months under certain circumstances)

- Apprentice and company conclude an **apprenticeship contract**
  (school leavers apply to company)

- **Examinations**: intermediate and final examinations
  (theory and practice) are centrally set and organized by the Chambers of Industry and Commerce
Excursion - There are various paths of education in Germany, all of which can lead to the highest qualification

(Illustration based on the example of the Free State of Bavaria)
What we do - Dual degree programs are conducted at an institution of higher education with practical periods at the company

<table>
<thead>
<tr>
<th>Degree course</th>
<th>Double qualification for young people</th>
<th>Siemens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory in cooperation with 30 institutions of higher education and universities</td>
<td>Practical periods in Germany and abroad</td>
<td></td>
</tr>
</tbody>
</table>

Duration 3 – 4 years

Theory + Practice + International experience
## Apprenticeships and degree programs requiring university entrance qualification

### Electrical Engineering/ Mechatronics
- Bachelor of Engineering, in Electrical Engineering and Information Technology incl./excl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Bachelor of Engineering in Electrical Engineering
- Bachelor of Engineering in Mechatronics incl./excl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Bachelor of Science in Electrical Engineering and Vocational Training incl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Bachelor of Engineering in Industrial Engineering Industrial Technologist
  - Automation
  - Mechatronic Systems

### Information Technology
- Bachelor of Engineering, in Information Technology
- Bachelor of Arts in Business Administration incl. Specialist Consulting
- Bachelor of Science in Computer Science
- Bachelor of Science in IT Engineering and Business Consulting incl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Specialist Consultant in
  - Software Engineering
  - Integrated Systems
  - Sales

### Mechanics/ Mechanical Engineering
- Bachelor of Engineering in Mechanical Engineering incl./excl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Industrial Technologies in Mechanical Engineering/ Power Engineering
- Master of Engineering in Power Systems Engineering incl. Bachelor of Engineering + vocational qualifications awarded by the Chamber of Industry and Commerce

### Business Management
- Bachelor of Arts in Business Administration incl./excl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Bachelor of Arts in International Management incl. vocational qualifications awarded by the Chamber of Industry and Commerce
- Bachelor of Arts in Business Administration Industry/ Service Management
- Bachelor of Science in Business Information Technology
- Bachelor of Arts in Management with Engineering Office Management Assistant (2-year)
What we do - most apprentices and students were hired permanently after they completed their education.

**Apprentices / trainees qualified at Siemens Germany (FY2013)**

- **1,818 qualified**
  - Taken into employment:
    - Permanent: 1,316 (72.4%)
    - Temporary: 502 (27.6%)
  - Taken into employment:
    - Permanent: 863 (66%)
    - Temporary: 453 (34%)

**Disposals**

There are many reasons why people leave Siemens after completing their vocational training:

- To aspire to a higher educational qualification
- To go on to higher education (degree course)
- To work outside the company
- Personal reasons
What we do - Siemens is one of the largest trainers in Germany

Training costs Germany: 184' € p. a.

- 2,140 hirings in 2013

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<tr>
<th>Numbers at the Siemens Technical Academies</th>
<th>Technical trainees</th>
</tr>
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<td>of these 589 are women</td>
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<th>Siemens Technical Academies</th>
<th>387</th>
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| Trainees via corporate associations | 90 |

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<th>External Trainees</th>
<th>2,814</th>
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Why we do it – Why we have to do it!

The education market will become an applicant market

- The number of school graduates will go down until 2020 and competition for best fit applicants will increase.
- There will be a low number of applicants vs. a large number of open jobs (esp. in technical dual courses).
- A growing number of companies will offer dual courses.
Why we do it – Our benefits

Training founded in reality
• Learning on the job
• Insight into their future work environment
• Social qualifications

Career ready employees
• Little to no transaction costs
• No special trainee program required
• Ready for the job after graduation
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