

Digest of Green Reports and Studies

Title	<i>Skills for green jobs – Country report -- Germany</i>
Author	None identified
Organization	European Centre for the Development of Vocational Training (Cedefop)
Author Contact	None provided
Publication Type	Report – Results from Original Survey
Publication Date	2010 (unedited document available only electronically)
# of Pages	106 pp.
URL	www.ilo.org/wcmstp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_142480.pdf
Summary	<p>This very detailed report provides a picture of Germany’s two-decades-long process of integrating environmental protection into its vocational education and training system. It reflects the fact that Germany’s approach to preparing its workforce for employment is carefully structured and organized.</p> <p>Specific curricula lead to attainment of specific competencies and broadly-recognized certifications showing that completers are ready for employment in specific jobs in specific industries.</p> <p>Rather than training workers for new, specifically “green” occupations, Germany has adjusted and refined many established occupations and their related training curricula to incorporate the “green” skills which mainstream industry and businesses expect their workers to possess. (A picturesque example from the report is that “chimney sweeps must now integrate environmental supervisory and consultancy tasks into their work”.)</p> <p>Some preparation of workers in new “eco-industries” is also being done. Specifically, job training in four technical/environmental trades is being offered: Recycling and Waste Management Technician; Water Supply Engineering Technician; Sewage Engineering Technician; and Pipe, Sewer, and Industrial Service Technician. Additionally, the number of environment-focused University-level courses (mostly in engineering faculties) has reached approximately 100 (enrolling approximately 14,000 students) nationwide.</p> <p>The report shows that Germany as a whole and its labor market in particular have progressed far beyond merely transitioning into the green future, as the United States is now beginning to do. Germany is in the green future and is beginning to go beyond that. As the report states: “The maturing of environmental markets over the past two decades has led to reduction of company-specific (job) training initiatives (because) the general needs of employers are now met through (accomplished) changes in (the) mainstream education and training system.”</p> <p>The report provides a picture of what might be achieved elsewhere if the sort of underlying national commitment and willingness to make hard choices which has genuinely moved Germany toward clean energy generation and prudent energy utilization over the past 20 years were adopted elsewhere. For example, Germany has decided to terminate coal mining subsidies by 2018 even though this will destroy almost 52,000 jobs in that sector. In fact, Germany has progressed so far down this road that it is now beginning the next generation of job market adjustments: It is considering cuts of its subsidy of Germany’s very successful manufacturing and marketing (both domestically and internationally) of solar photovoltaics even though this is certain to cause manufacturing jobs to be relocated from Germany to other countries. Germany plans to instead focus on research and development, operational engineering, marketing, and value chain management, work that will be handled by appropriately-prepared engineers and other professionals.</p> <p>Germany’s early official commitment to green principles reflected broad acceptance of them by the electorate. (The Green Party, which was founded in 1980, is one of Germany’s five main political parties. It was part of the coalition government of Germany from 1998 through 2005.) Germans support green principles and put up with the personal inconveniences and expense of going green (e.g., separating their trash into as many as five different categories, being prohibited from driving high-emission cars in some areas, and paying very high gasoline prices). As in the United States, there continues to be debate about some of the <i>hows</i> of accomplishing climate protection, lower emissions and renewable energy. However, unlike the United States, there is almost universal agreement <i>that</i> these are appropriate goals.</p>

	Another key difference is that Germans tend to be tolerant of government-initiated and government-led steps to increase Germany's greenness. This allows changes to be implemented uniformly and relatively efficiently throughout this geographically and socially compact country.
Key Findings	Germany needs to promote professionalism in green competencies to reflect its planned "headquarters" function relating to manufacturing going on under its guidance in other countries.
Recommendations	<p>Contrary to Germany's previous and current approach of "greening" established occupations by modifying them to add green skills, Germany should begin to develop higher levels of professional specialization to maintain and even improve the international competitiveness of its environmental goods and service suppliers. At the same time, in order to make it possible for Germany to achieve its very aggressive internal environmental goals through 2020 (40% reduction of greenhouse emissions; 3% energy efficiency growth annually; 18% of total energy supply from renewables; and 25% of power from combined heat and power generation) it should achieve a higher level of knowledge integration of green competencies with the skills of non-environmental occupations.</p> <p>It is particularly striking that Germany has progressed so far in respect to "greening" that this report concludes, contrary to received wisdom in the United States, that it would be appropriate to focus less on meeting green-specific workplace demands and more on general labor market needs by adopting a lifelong-learning-focused approach toward creating a nimble workforce which can adapt to whatever changes may eventuate.</p> <p>(It may be that this last recommendation reflects less what would be useful in the context of the greening of occupations and more that the author(s) may have a non-green-based concern that "Germany has long since been reluctant to develop such a life-long learning system" which is becoming more and more necessary because of an overall "declining skills supply caused by demographic changes" [a very low birth rate and a consequently aging workforce, factors that obviously are unrelated to the greening of occupations/industries].)</p>
Definition of "Green"	None.
Methodology	Literature research
Data Sources Cited	<ul style="list-style-type: none"> • BMU 2009: GreenTech made in Germany 2.0, S.174. • BMU 2009: The World Nuclear Industry Status Report. • Wissenschaftsladen Bonn 2007: Ausbildung und Arbeit für Erneuerbare Energien <p>Additional Data Sources Cited may be found throughout the report.</p>
Report Geography	Germany
Green Occupations Cited	<ul style="list-style-type: none"> • Energy Consultants • Environmental Technicians • Green Business Management • Mechatronics Technician for Renewable Energy • Plant Mechanic for Sanitary, Heating and Air Conditioning Systems • Recycling and Waste Management Technician • Service Technicians for Wind Turbines • Thermal Chemical Technicians <p>Additional Green Occupations are found throughout the report.</p>
Green Industries Cited	<ul style="list-style-type: none"> • Agriculture • Construction • Environmental Technology • Renewable Energy • Transportation <p>Additional Green Industries may be cited throughout the report.</p>
Keywords	Biofuels; Biogas; Conclusion and Recommendations; Environmental Chemistry; Environmental Policies; Geothermal; Greenhouse Gases; Job Creation; Nuclear Energy; Recycling; Skills Response; Solar Techniques; Siemens; Sustainable Transport; Wind Turbines.
Legislation Cited	<ul style="list-style-type: none"> • Energy Saving Act (2007) • Energy Saving Regulation • Renewable Energy Law <p>Additional Legislation is cited throughout the report.</p>

Bibliography (Y/N)	Y
Reviewer Name/Org	Karl Jaensch, Workforce Services Branch, California Employment Development Department.

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