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# Vocational Training "Made in Germany"

## Germany's Dual System of Vocational Education and Training (VET)

Market Intelligence Germany

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Germany's dual system of vocational education and training (VET) is highly acknowledged.

1. With the lowest youth unemployment rate in Europe, Germany's dual VET-system is highly recognized abroad.
2. The majority of Germany's workforce received its high qualification through the dual VET-system.
3. The dual VET-system is an integral part of the general education and training system in Germany.
4. The German apprenticeship system is called a "Dual System" because training takes place both in firms and public training schools.
5. With dual education, German companies turn apprentices into customized specialists at low net costs through inhouse training.
6. Germany's apprenticeship system provides 344 certified trained occupations, designed by the government and industry.

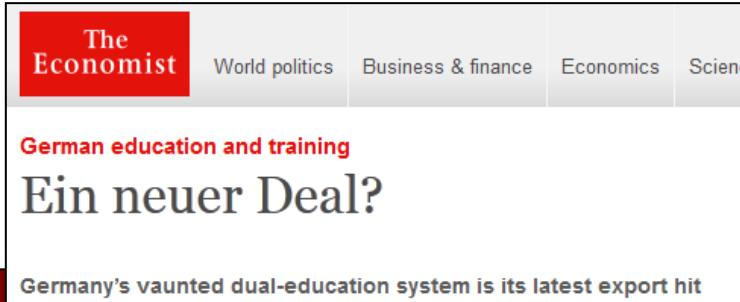
Germany's dual system of vocational education and training (VET) is highly acknowledged.

7. The key success factor of the German dual apprenticeship system is the close partnership among all social partners.
8. The dual VET-system is strongly integrated into the German economy and society.
9. Germany's VET-system has a long tradition and is constantly revised.
10. In higher education, dual study programs are on the rise.

With the lowest youth unemployment rate in Europe, Germany's dual VET-system is highly recognized abroad.

## Unemployment Rates in Selected Countries (2013, in %)

	Total Unemployment	Youth Unemployment	Gap**
Germany	5.3	7.9	2.6
Austria*	4.3	8.7	4.4
Netherlands	6.7	11.0	4.3
Czech Republic	7.0	18.9	11.9
United Kingdom*	7.9	21.0	13.1
EU-28	10.9	23.5	12.6
France	10.8	25.5	14.7
Poland	10.4	27.4	17.0
Slovakia	14.2	33.6	19.4
Spain	26.4	55.7	29.3



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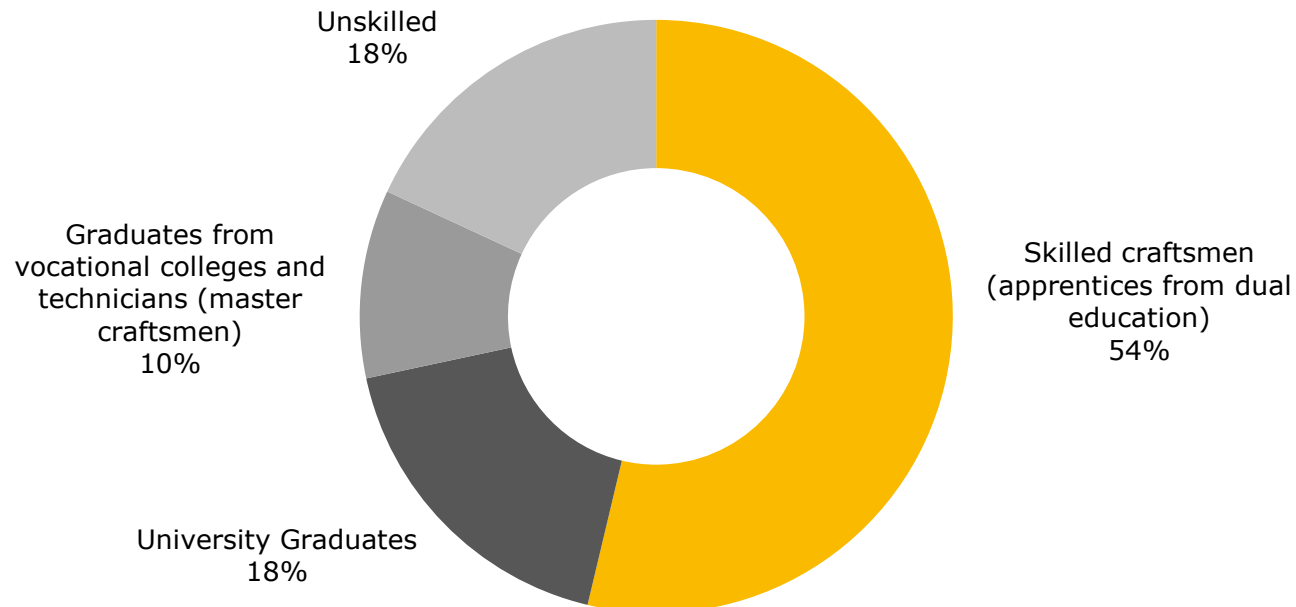
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Dual education offers win-win solution

Note: \*2012 data; \*\*Youth unemployment gap (in %-points) = youth unemployment rate ./ total unemployment rate; Source: Eurostat [une\_rt\_a] 2013

The majority of Germany's workforce received its high qualification through the dual VET-system.

## Workforce in Germany by Level of Professional Education (2012, in % of total workforce)

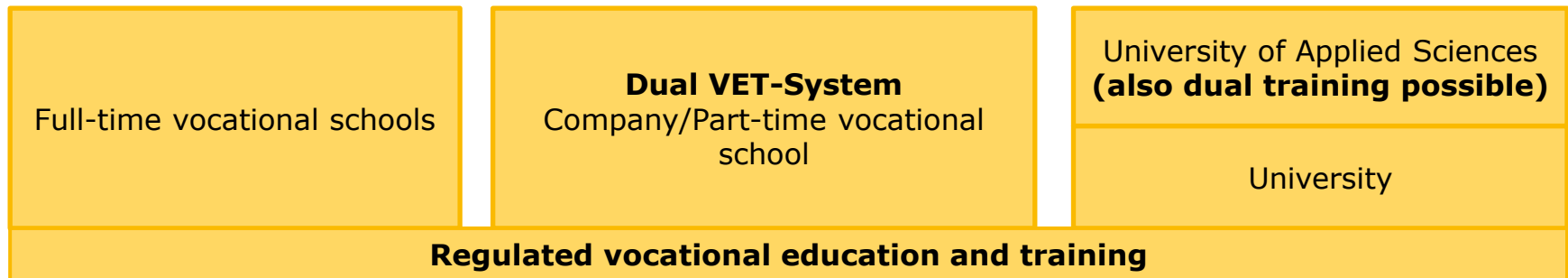


Sources: Federal Statistical Office 2013

The dual VET-system is an integral part of the general education and training system in Germany.

## Transition from Education into the Labour Market in Germany (simplified)

### Qualified Jobs

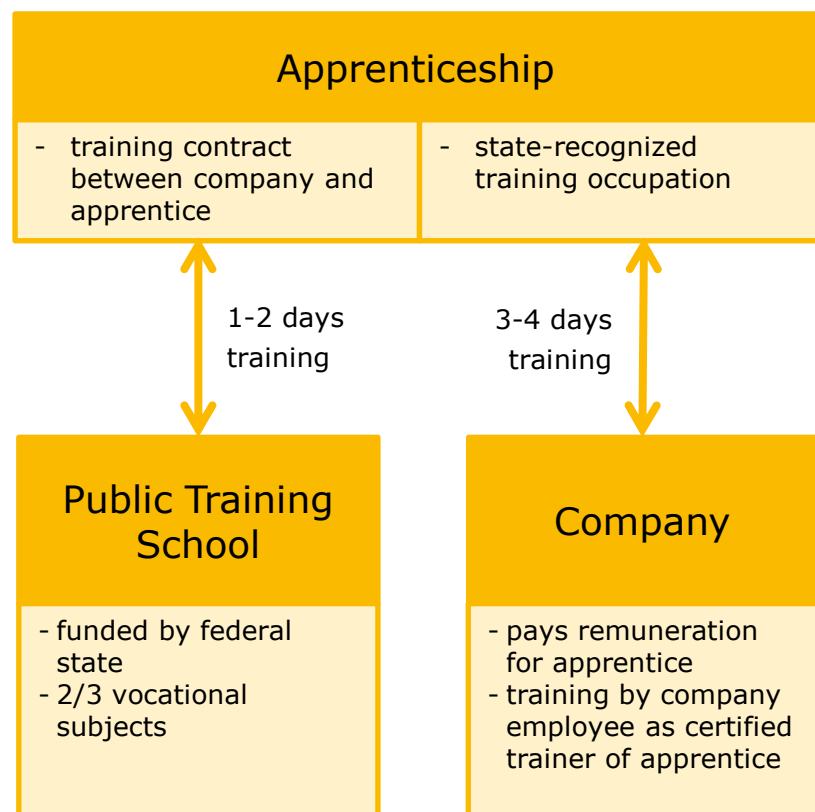


### Schools providing a general education

Note: A detailed structure of Germany's educational structure, can be found [here](#).  
Source: Germany Trade and Invest, Federal Ministry of Education and Research 2013

The German apprenticeship system is called a “Dual System” because training takes place both in firms and public training schools.

## Dual System of Apprenticeship



- Requirement for apprenticeship: full compulsory education (9-10 years).
- Remuneration paid by company, amounts to approx. one third of a skilled worker's salary.
- Average apprenticeship period: 36 months.
- The major share of apprentices receive an employment contract after the training (2011: 68%).
- For the dual education in specialized schools, the federal and regional governments spent about EUR 2,400 per apprentice in 2009.

With dual education, German companies turn apprentices into customized specialists at low net costs through inhouse training.

## Why take companies part in dual education? (survey results<sup>1</sup>)

own trainees fit company's needs	94%
acquisition of specialists not available on labor market	93%
low labor turnover through loyal employees	71%
possibility to choose best candidate when considering employment after end of apprenticeship	72%
improving competitiveness in future	64%
avoiding risk of wrong hiring of external candidates	58%
time and cost saving instead of settling-in of external personnel	56%

## Annual Net Costs for Companies per Apprentice (2007, in EUR)

	average	with training workshop	without training workshop
investments <sup>2</sup>	15,288	20,063	14,564
./. Revenues <sup>3</sup>	11,692	6,890	12,419
<b>= annual net costs</b>	<b>3,596</b>	<b>13,174</b>	<b>2,145</b>
hiring costs <sup>4</sup>		4,214	

2) *Investments*: Labor costs for trainers and apprentices, costs for workplace/ training workshop, inhouse-training, fees for the chamber

3) *Revenues*: Productive participation of apprentices in daily business.

4) *Hiring Costs*: nonrecurring costs for job ads, selection process, performance gap in settling-in period, further education.

Note: 1) most current survey from 2004 (left) Source: Federal Statistical Office (right) 2013, BIBB (left) 2004



Germany's apprenticeship system provides 344 certified trained occupations, designed by the government and industry.

## Prominent Training Occupations of Men and Women (2012)

	Men	Women
1	<a href="#">Motor vehicle mechatronics technician</a>	<a href="#">Medical assistant</a>
2	<a href="#">Industrial mechanic</a>	Office clerk*
3	<a href="#">Electronics technician</a>	<a href="#">Management assistant for retail services</a>
4	<a href="#">Plant mechanic for sanitary, heating and air conditioning systems</a>	<a href="#">Industrial clerk</a>
5	<a href="#">Management assistant for retail services</a>	<a href="#">Qualified dental employee</a>
6	<a href="#">Information technology specialist</a>	<a href="#">Sales assistant for retail services</a>
7	<a href="#">Mechatronics fitter</a>	<a href="#">Hairdresser</a>
8	<a href="#">Management assistant in wholesale and foreign trade</a>	Office clerk for communication*

- Almost 550,000 vocational contracts were signed in 2012.
- All training occupations are state-recognized and constantly revised: Since 2002, 44 new occupations have been created and 187 have been modernized.
- In 2011, about 23% of all new apprentices in dual education own a university entrance certificate. About 42% graduated from secondary school.
- A list of occupations with English descriptions can be obtained from the Federal Institute for Vocational Education and Training (BIBB, [link](#)).

Note: \*currently under revision Source: Federal Statistical Office 2013

The key success factor of the German dual apprenticeship system is the close partnership among all social partners.

Legal basis: Vocational Training Act (Berufsbildungsgesetz, BBiG)

Federal Government	Federal States	Industry	
<ul style="list-style-type: none"> <li>• Recognizes Training</li> <li>• Requirements for training and examinations</li> <li>• Training regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Issue curricula for part-time vocational schools</li> <li>• Finance teaching staff</li> <li>• Supervise chamber activities</li> </ul>	<p><b>Employers</b></p> <hr/> <ul style="list-style-type: none"> <li>▪ Creation and updating of training occupations</li> <li>▪ Nominate experts for training regulations</li> <li>▪ Negotiate provisions in collective agreements like remuneration</li> </ul>	<p><b>Chamber of Industry and Commerce / German Confederation of Skilled Crafts</b></p> <hr/> <ul style="list-style-type: none"> <li>▪ Advise stakeholders in training</li> <li>▪ Supervise training in the company</li> <li>▪ Verify the aptitude of companies and training instructors</li> <li>▪ Register training contracts</li> <li>▪ Administer examinations</li> </ul>

The dual VET-system is strongly integrated into the German economy and society.

## Importance of Germany's VET System in Numbers (2011)

More than **1.4 million apprentices** support German companies, 83% in companies with less than 500 employees. Companies with 50 to 499 employees have the largest amount of apprentices.

On average, one certified trainer trains **2.2 apprentices**.

Almost **90%** of large companies employ apprentices.

About **455,000 companies** take part in vocational education training.

More than **every fifth German company** employs apprentices.

Almost **566,000 signed new apprenticeship** contracts.

More than **530,000 apprentices** take part in final exams, of which 95% successfully pass.

The average age of a graduated apprentice is **22**. Apprentices are on average **19,5** years old when they begin their vocational training.

Germany's dual VET-system has a long tradition and is constantly revised.

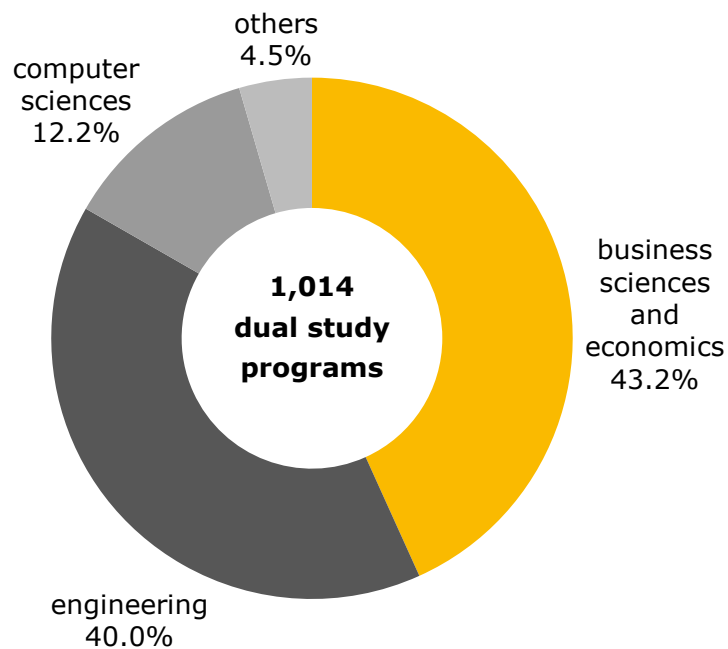
The history of Germany's vocational educational training roots in Germany's medieval history, when guilds of craftsmen organized the educational process of becoming a journeyman (*Geselle*) and the additional Master (*Meister*) qualification. The vocational educational training remained within crafts until the 19th century, when occupations in trade adopted the system.

- 1869: First trade regulated act (*Gewerbeordnung*), including compulsory education for minors to improve work-related skills
- 1897: Amendment of trade regulated act, including supervision of vocational crafts training by chambers of skilled crafts
- 1895-1914: Improvement of industry-related education in specialized training schools
- 1920: Introduction of vocational trainings for commercial occupations
- 1969: Ratification of Germany's „Vocational Training Act“ to bundle different (regional) regulations in one federal act.**
- 1969-1990: Modernization of 229 training regulations (of 375 training regulations)
- 2005: Amendment of the vocational training act (general modernization of vocational training act)

Source: Federal Ministry of Education and Research (2013), German Federal Agency for Civic Education (2010), Greinert (2006)

In higher education, dual study programs are on the rise.

## Dual Study Programs in Higher Education in Germany (2013)



Source: AusbildungPlus 2014

- Since 2004, the number of dual study programs rose from 512 up to 1,014 programs in 2013.
- With a share of 59%, most of the dual study programs are offered by universities of applied sciences.
- More than 39,600 companies recruit participants for dual study programs (2013).
- The dual character can include long internships, distant learning for the academic part or the overlap with vocational training of certified training occupations.
- A trend is the rising number of dual study programs for further education (2013:447).
- The database of dual study programs in Germany can be found [here](#).

These institutions provide useful further information about the Dual Education System in Germany:

- Federal Ministry of Economics and Technology (BMWFi, [www.bmwi.de](http://www.bmwi.de))
- Federal Ministry of Education and Research (BMBWF, [www.bmbwf.de](http://www.bmbwf.de))
- Association of German Chambers of Commerce and Industry (DIHK, [www.dihk.de](http://www.dihk.de))
- German Confederation of Skilled Crafts (ZDH, [www.zdh.de/en](http://www.zdh.de/en))
- Federal Institute for Vocational Education and Training (BIBB, [www.bibb.de](http://www.bibb.de))
- AusbildungPlus-database for dual higher education ([www.ausbildungplus.de](http://www.ausbildungplus.de))

## Germany Trade and Invest Foreign Trade and Inward Investment Promotion Agency

Friedrichstraße 60  
10117 Berlin  
Germany  
T. +49 30 200 099-0  
F. +49 30 200 099-111

Villemombler Str. 76  
53123 Bonn  
Germany  
T. +49 228 249 93-0  
F. +49 228 249 93-212

### For further information, please contact:

**Market Intelligence Germany**  
**Mr. Thomas Bozoyan**  
Senior Manager  
T. +49 30 200 099-502  
F. +49 30 200 099-999  
thomas.bozoyan@gtai.com

**Market Intelligence Germany**  
**Mr. Marc Lehnfeld**  
Manager  
T. +49 30 200 099-501  
F. +49 30 200 099-999  
marc.lehnfeld@gtai.com

## Back-Up Slides



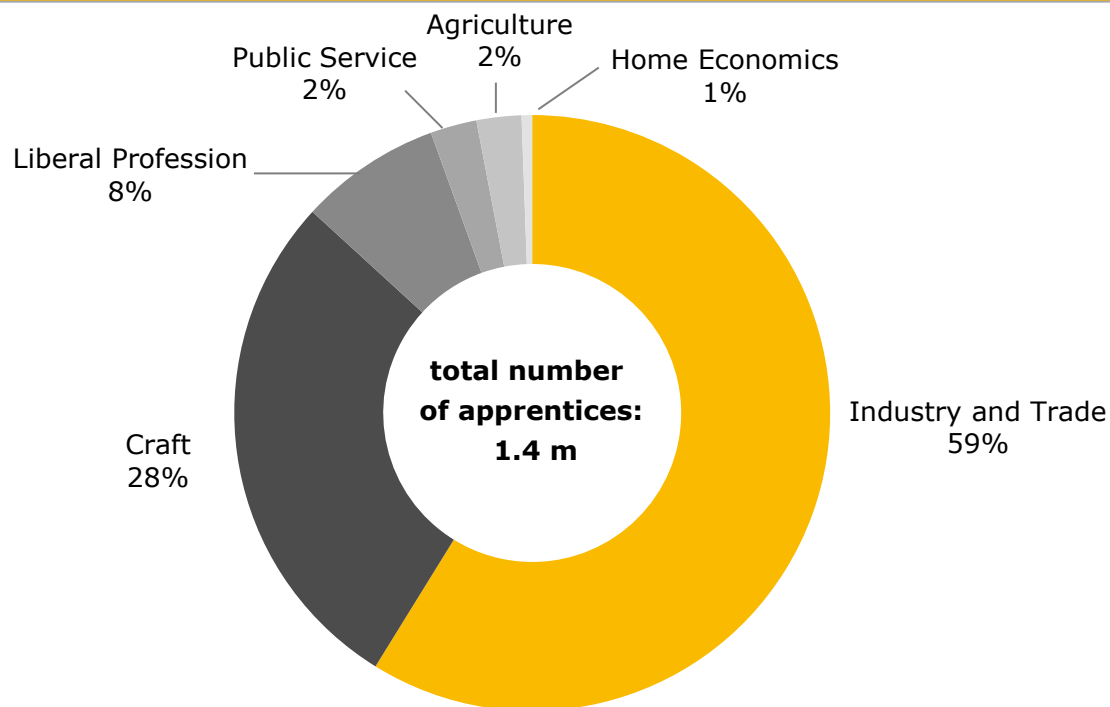
The German apprenticeship system is highly recognized. Even 29% of graduates qualified to enter university decided to take up an apprenticeship instead.

- The German apprenticeship system is called “Dual System” because training takes place in both firms and public training schools. It relies on the sharing of costs among companies, governments and apprentices.
- The remuneration paid by the company is approx. one third of the salary of a skilled worker.
- The practical training is provided in the company supported by teaching in part time schools.
- Two thirds of the apprenticeship takes place in an appropriate company that is qualified to train apprentices.
- Two thirds of the curriculum in vocational schools consists of vocational subjects.
- Apprenticeships last 24, 36, or 42 months. Most apprenticeships (250 of 344) last 36 months.
- An apprenticeship prepares students directly for the labor market.
- The Dual System enjoys a high reputation in Germany, especially from the employer side since all apprentices are highly involved in many day to day processes.

Source: Association of German Chambers of Commerce and Industry 2012, Federal Ministry of Education and Research 2007, Cedefop 2008, Cedefop 2008

Germany's apprenticeship system provides 344 certified training occupations. More than 549,000 vocational contracts were signed in 2012.

## Vocational Contracts by Area of Profession (2012)



Source: Federal Statistical Office 2013