Digitalization is transforming learning – in the classroom, the workplace and at home. Significant opportunities exist for innovative digital learning platforms and solutions providers in Europe’s biggest and most diverse education and learning market.

Global market growth
Education is a global growth market. Population growth and demographic change are driving demand for digital education and learning solutions in a changing world. The share of tertiary-educated young adults in OECD member countries rose from 35 percent in 2008 to 44 percent in 2018. This reflects increased global demand for skilled labor, rising wealth levels and more funding programs supporting access to tertiary education. Spending on tertiary institutions also increased at more than double the rate of student enrolments to around USD 15,600 per student on average in OECD countries between 2005 and 2016. This has brought a rise in private sources to meet newly introduced or raised tuition fees. The Covid-19 pandemic has accelerated uptake of online education and learning solutions, with digital technologies and data infrastructures having far-reaching effects on traditional teaching and learning models.

Germany – investing in education for a strong economy
Germany’s strong economy is due in no small part to its excellent education and training system. Knowledge is one of the country’s most important resources; with the dual education system and research and development infrastructure being just two examples that enjoy international respect. Since 2010, Germany’s education sector has enjoyed gross value added growth of around 3.6 percent per annum compared to total economy growth of 3.4 percent per annum. In 2018, higher education expenditure recorded an annual rise of six percent, taking spending to EUR 57 billion. Although education in Germany has traditionally been primarily financed from the public purse, the private sector accounts for around one fifth of total educational expenditure.

EUR 147.2 billion
Total Public Education Spending in Germany

4.2%
Total Public Education Spending as Percentage of Gross Domestic Product

EUR 1,182
Per Capita Spending on Schools, Universities and Other Education Establishments

3.6%
Education Sector Value Added Share of Domestic Economy

EUR 310 billion
Total Spending on Education, Research and Science
MARKET OPPORTUNITIES

Market Diversity Driving Growth

Germany’s highly diversified education and learning sector provides excellent opportunities for international investors in a number of segments including the traditional education sector, vocational training in the workplace, and the private consumer market.

Digital solutions for the smart school classroom
Demand for school digital learning platforms and solutions is growing. The Covid-19 pandemic has highlighted the pressing need for an improvement of digital infrastructure in Germany’s school education system. Germany’s Federal Government has approved the release of EUR 100 million for primary and secondary schools as part of its existing “Digital Pact for Schools” program in order to combat the immediate effects of the Covid-19 crisis. The EUR 5 billion initiative, put in place to help schools upgrade their digital infrastructure, is part of the country’s broader digital transformation objectives. The emergency funding has been made available to ease the transition to “home learning” using cloud platforms and solutions.

Digitalization transforming vocational training
Germany’s dual vocational education and training system is a pillar of the country’s economic competitiveness. The “dual system” combines on-the-job work experience and vocational school training over a period of two to three years. Germany’s digital transformation is changing the workplace, creating new occupation profiles and driving demand for appropriate continuing vocational education and training (CVET) services and solutions. Digital education and training providers can tap into a lucrative market: More than 7 million people are engaged in continuing vocational training. Over 77 percent of companies offer continuing vocational training, with five million employees in continuing vocational training according to the Federal Statistical Office.

Private consumer market in the ascent
Private consumer uptake of digital learning platforms and services is also in the ascent. According to Global Market Insights, the global e-learning market passed USD 200 billion in 2019 and is forecast to grow at more than eight percent compound annual growth for the period 2020 to 2026. Cloud computing and artificial intelligence technologies married to high internet penetration levels across the globe are driving market growth. The coronavirus crisis has also increased demand for e-learning solutions, with mobile learning, microlearning, social learning, and corporate massive open online courses being the emerging trends increasing market turnover. In the corporate sector, e-learning uptake is largely being driven by a focus on talent enhancement and staff retention. This itself is the result of the changing language and skillset requirements created by a globalized workforce across international territories. Digital learning content and e-learning course account for more than 50 percent of the German e-learning market alone.

E-Learning Revenue Share by Sector in percent

<table>
<thead>
<tr>
<th>Year</th>
<th>Supplying digital learning content</th>
<th>Creating digital learning content</th>
<th>Selling/leasing tools for e-learning</th>
<th>Consulting services</th>
<th>Further services</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>33</td>
<td>32</td>
<td>17</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>2016</td>
<td>39</td>
<td>27</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>2017</td>
<td>36</td>
<td>25</td>
<td>23</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>2018</td>
<td>52</td>
<td>18</td>
<td>19</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: MMB-Institut für Medien- und Kompetenzforschung 2020

Continuing Education and Training

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants in continuing vocational training</td>
<td>&gt;7 mn</td>
</tr>
<tr>
<td>Employees in continuing vocational training</td>
<td>5 mn</td>
</tr>
<tr>
<td>Enterprises with continuing vocational training</td>
<td>&gt;77%</td>
</tr>
<tr>
<td>Apprentices in vocational training</td>
<td>1.3 mn</td>
</tr>
</tbody>
</table>

Source: Federal Statistical Office 2019
Digitalization Opens Up New Markets

Significant market potential exists for private sector actors that provide digital education formats for use in the extended education sector. Germany’s “digital transformation” project is creating growing demand for continuing education – from the school and training sector through to the university and further education sectors – in the digital sphere.

Remote learning solutions and the Coronavirus crisis
The Covid-19 pandemic has firmly placed remote learning solutions on the German digital learning agenda. Nordic countries, as part of a project initiated by education start-ups and “Education Nation” (Estonia), have made a number of remote learning solutions freely available across Europe to support teachers and parents in the current difficult situation. Digital learning solutions providers who make their apps and solutions freely available to schools and educational establishments in Germany may well be permanently integrated into the country’s education landscape after successful test phase completion. Similar opportunities also exist for international companies in the college, university and further education environment, as they too address the current situation and the country’s radically changing digital learning requirements.

Internationalization and transnational education
Transnational education (TNE) is an increasingly global trend that is gaining ever more traction in the higher education market. More and more educational establishments are carrying out their academic programs across a number of countries according to different modes including articulation programs, branch campuses, distance learning, MOOCs, and franchising arrangements. The German Academic Exchange (DAAD) provides support to numerous TNE projects as well as binational universities and branch campuses, with a strong focus on engineering and the natural sciences.

Digital learning platforms “made in Germany”
“Made in Germany” is understood the world over as guarantee of quality. Digital learning solutions providers based in Germany can benefit from this appellation to successfully export around the world. A WifOR Institute study conducted on behalf of the Federal Ministry for Economic Affairs and Energy envisions opportunities for German providers of digital learning formats in markets such as China and the USA where there is a high level of receptiveness to “digital learning.” Other countries, including India, with less well-defined educational structures – and where digital learning can mean cost savings on bricks and mortar educational institutions – also represent a significant window of opportunity for “German” digital learning solutions providers.

Opening up the labor market to digital professionals
According to digital association bitkom, there are currently around 82,000 unfilled IT specialist positions in Germany. The digital transformation of all industry sectors in Germany will lead to greater demand for skilled professionals. The Skilled Immigration Act, introduced in March 2020, aims to address this by providing easier access to the German labor market for skilled professionals from non-EU countries.

German Government Education Initiatives

Digital Strategy
The Federal Ministry of Education and Research’s “Digital Strategy” sets out concrete objectives as part of its contribution to the Federal Government’s “High-Tech Strategy” and “Digital Agenda.” It is directly linked to the country’s artificial intelligence strategy, sustainability strategy, the “education offensive” for the digital knowledge-based society, and the cross-sectoral “Innovative SMEs” program initiative.

Digital Pact for Schools
Germany is making more than EUR 5 billion available over a period of five years to bring the country’s schools into the digital age. The funding, equivalent to EUR 500 for every one of Germany’s 11 million school pupils, will help schools upgrade their digital infrastructure through the provision of smartboards, Wi-Fi provision, online learning platforms, and the use of mobile devices.

German Forum for Higher Education in the Digital Age
HFD is a think tank that orchestrates the discourse on higher education in the digital age. As a central initiator it informs, advises and networks actors from universities, politics, business, and society.
Students at Universities in Germany by Federal State 2019/2020

Germany’s higher education sector continues to grow, with the expansion of tertiary education being supported by a corresponding increase in funding and personnel. During the period 2005 to 2017, average annual growth rates of numbers of students and teaching staff was three percent – compared to one percent on average across OECD countries. Forty-three percent of total funding at this level is dedicated to research and development activities – the second-highest level across the OECD.
Germany Trade & Invest – A Strong Partner

Germany Trade & Invest (GTAI) helps international investors realize their objectives at all stages of the business location process – from the provision of initial tax and legal information services to site visits, contact initiation and local support. Germany Trade & Invest provides up-to-date market and industry information, allowing foreign investors to identify the most suitable options for their prospective investment projects.

Lancaster University Leipzig
Lancaster University (LU) Leipzig is a branch campus of Lancaster University. Awarded “International University of the Year” award by the Times and the Sunday Times’ “Good University Guide 2020,” Lancaster University ranks in the top 10 of all three national league tables in the United Kingdom and received a gold rating in the British government’s “Teaching Excellence and Student Outcomes Framework” assessment.

LU Leipzig offers a range of degree programmes, with the university committed to providing the same academic quality and student experience it offers in the UK. As part of its first phase of development, the Leipzig campus plans to offer four Lancaster University accredited Bachelor of Science programmes taught by the university, and a Lancaster University accredited foundation programme delivered by Navitas. The campus is located in the heart of the city of Leipzig and welcomes German, EU and international students. From September 2020, students will be able to acquire a British university degree in the centrally located rooms of the Alte Hauptpost in Leipzig. Twenty new positions are expected to be created at the site over the next two years.

"Lancaster University chose Leipzig because this city has everything that is needed to offer students a fantastic time whilst studying as well as longer-plan settlement opportunities. The support from GTAI was amazing – especially their timely responses, openness, reachability and the high quality of information and outputs. GTAI enabled us to quickly hit the ground running. Thank you very much!"

Dr. Elisabeth Grindel-Denby, Campus Director, Lancaster University Leipzig

Germany Trade & Invest Project Support – Meeting Client Requirements

| Client | Navitas/Lancaster University |
| Country of Origin | United Kingdom |
| Sector | Higher Education |
| Initial Contact to GTA | End of 2017 |
| Selected Location | Leipzig (Saxony) |
| Number of Jobs to be Created | 80 |
| Project Handover Partner | Saxony Economic Development Corporation |
| Project Completion | 2019 |

**Investment Location Criteria**
- Vibrant economic and business environment
- Attractiveness for domestic and international students
- Good national and international connections
- Established academic environment
- Affordable housing for students
- Open and business-friendly environment

**GTAI Support**
- Overview of the higher education system
- Company and corporate law
- Project partner identification and communication
- Site visit organization and participation
Our Support for Your Business in Germany

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- Market and industry reports
- Market entry analyses
- Business and tax law information
- Funding and financing information

All investment-related services are provided entirely free of charge and all enquiries are treated with the utmost confidentiality.

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