Hidden Champions
in the Digitized Ecosystems Economy

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Globalization
Innovation
Digitalization
Globalization Is Continuing

Growth of World Trade 2010-2019
Change in % (2010 = 0)

Source: CPB World Trade Monitor
Ten Year Per Capita Exports (2009-2018)

<table>
<thead>
<tr>
<th>Country</th>
<th>US-$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>163 519</td>
</tr>
<tr>
<td>Finland</td>
<td>130 796</td>
</tr>
<tr>
<td>Korea</td>
<td>108 702</td>
</tr>
<tr>
<td>France</td>
<td>85 380</td>
</tr>
<tr>
<td>Italy</td>
<td>78 870</td>
</tr>
<tr>
<td>UK</td>
<td>67 991</td>
</tr>
<tr>
<td>Spain</td>
<td>62 765</td>
</tr>
<tr>
<td>Japan</td>
<td>54 632</td>
</tr>
<tr>
<td>USA</td>
<td>45 616</td>
</tr>
<tr>
<td>Russia</td>
<td>29 091</td>
</tr>
<tr>
<td>China</td>
<td>14 047</td>
</tr>
</tbody>
</table>
Hidden Champions Explain Super Export Performance

Exports 2017
in billion US-

No. 1 per capita

No. 1 absolute

Germany (32)
China (111)
USA (126)
France (28)
UK (20)
Japan (52)
South Korea (16)
India (7)
Brazil (7)
Spain (9)
Finland (1)
Russia (4)

https://www.destatis.de, Fortune

Fortune Global 500 Corporations (2017)
Globalia 2030 – Size and Growth of GDP

Gross domestic product 2030
in billion US-

Growth of GDP 2016-2030 in billion $

Ecosystems have to aim at the first global league
Will Trump stop globalization?
Some Numbers

<table>
<thead>
<tr>
<th>Germany</th>
<th>18461</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1738</td>
</tr>
<tr>
<td>India</td>
<td>243</td>
</tr>
</tbody>
</table>

- German exports to Sweden are larger than German exports to all of Africa.
Globalization is progressing. Economic ecosystems must no longer be confined to national or continental frameworks but should be globally oriented. The Hidden Champions play a key role in the creation of global ecosystems.
The Strategy of the Hidden Champions:

Digitalization Affects Everything

- Focus
- Strong leadership with ambitious goals
- Closeness to customer
- Global orientation
- Competitive advantages
- Digitalization
- Depth
- Innovation
- High performance employees
Innovativeness (Measured by European Patents)

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of European patents 2009-2018 per million inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>1 812</td>
</tr>
<tr>
<td>Finland</td>
<td>1 530</td>
</tr>
<tr>
<td>Japan</td>
<td>1 048</td>
</tr>
<tr>
<td>France</td>
<td>874</td>
</tr>
<tr>
<td>USA</td>
<td>535</td>
</tr>
<tr>
<td>Korea</td>
<td>502</td>
</tr>
<tr>
<td>Italy</td>
<td>424</td>
</tr>
<tr>
<td>UK</td>
<td>362</td>
</tr>
<tr>
<td>Spain</td>
<td>117</td>
</tr>
<tr>
<td>China</td>
<td>12</td>
</tr>
<tr>
<td>Russia</td>
<td>6</td>
</tr>
</tbody>
</table>
## Innovation KPIs

<table>
<thead>
<tr>
<th>KPI</th>
<th>Hidden Champions</th>
<th>Large corporations/average</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D intensity (% of revenue)</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Patents per 1000 employees</td>
<td>31</td>
<td>6</td>
</tr>
<tr>
<td>Integration of customer needs and technology</td>
<td>65%</td>
<td>19%</td>
</tr>
<tr>
<td>Speed</td>
<td>medium-high</td>
<td>medium-low</td>
</tr>
<tr>
<td>Open innovation/inclusion of ecosystems</td>
<td>Knowledge: high</td>
<td>Product: low</td>
</tr>
<tr>
<td></td>
<td>medium-high</td>
<td></td>
</tr>
</tbody>
</table>
The Driving Force of Innovation

Be the best! Deliver the highest value-to-customer!

- "Our ambition is to be the absolute number one."
  Mackevision, global market leader in computer generated imagery (CGI)
- "Our vision is to be the world's most trusted and desirable premium brand."
  Miele
- "We deliver the best translations in the world."
  Deepl.com
- "We must build the best machines in the world."
  MK Technology, a global leader in investment casting
- "We create ultimate value for our customers as the world's undisputed leading supplier."
  Rosen, global market leader in pipeline inspection and maintenance systems
The ambition to be the best in one's market is a matter of entrepreneurial will, not of an ecosystem.

But how and whether this ambition can be realized is likely to depend on an ecosystem.
Innovation: Lilium Electric Aircraft
First Hydrogen-Powered Train

September 14, 2018, Cuxhaven-Buxtehude (Germany)
Dolfi: Next Generation Washing Device
Ecosystem Case: MK Technology: Investment Casting Systems

MK Technology

- SpaceX USA
- Tesla
- Metan, China, Rapid Prototyping
- Mei Mai, China, Fast Casting
- Voxeljet, Germany, 3D-Printing
- Russia
- Israel
- 9 German suppliers
- Tesla Grohmann Engineering

German suppliers: 9

Russia, Israel, SpaceX, Tesla, Mei Mai, China, Metan, China, Voxeljet, Germany, 3D-Printing.
Ecosystem Case: Extreme Ultraviolet Lithography (EUV)

ASML Wafersteppers, Waferscanners "Monopolist" for EUV

Intel etc.

Trumpf Laser 450 000 components

ZEISS SMT Optical Parts

Peter Leibinger: "We are like one company."

85% global market share
Are Ecosystems New?

Not always! We used to call them clusters.

Tuttlingen: Medical technology cluster

- 450 medical technology firms
- University of Applied Sciences in Medical Technology
- Vocational schools specialized in Medical Technology
- Common Marketing Organizations, e.g. Martin Medizintechnik
- Specialized Lawyers, Patent Attorneys etc.
Open vs. Closed in Innovation

"We find HCs to engage more frequently in co-operation with external partners. The largest difference is found for co-operation with universities and research institutes. However HCs rely more often on their own capacity when developing new products and are less engaged in joint new product development."

ZEW-Leibniz Mannheim 2019
Innovation continues to be a pillar of the Hidden Champions' success. Traditionally, Hidden Champions prefer to be closed off and do everything themselves. This attitude is gradually changing towards greater openness and even the active development of innovation-oriented ecosystems. Nevertheless, they want to retain control over their core competencies.
"Companies today should generate at least 5 percent of their revenues from digital ecosystems."

Jürgen Morath, Managing Director, Accenture Germany
Frankfurter Allgemeine Zeitung, 20. Mai 2019, p. 16
Digitalization

B2C: American and Chinese domain

B2B: What is different?

- Niche markets
- Considerably more complex processes
- Deep know-how
- Slower diffusion
- Know-how not available in the market

Hidden Champions are leading in B2B-digitalization.
"Almost all basic work on artificial intelligence and deep learning comes from Europeans. Europe is a leader in mechanical engineering and robotics. And it is precisely the combination of robotics and deep learning that will transform the world of production and work in the near future. The Long Short Term Memory (LSTM) of my research group is the core of three billion smartphones and is used billions of times every day."
Digitalization in Manufacturing

IFM Electronic: "We are the only supplier who offers a portfolio for Industry 4.0."

SEW Eurodrive: "We realize lot size 1."

Kärcher: 40,000 product variants in 24 hours

Knauf: Reaction time down from 3 hours to 1 hour

Trumpf: Delivery of stamping tools down from 4 days to 4 hours

ARRI: Digital professional film cameras
<table>
<thead>
<tr>
<th>Company</th>
<th>Service/Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamviewer</td>
<td>Remote Screen Control, installed on 1.5 billion devices</td>
</tr>
<tr>
<td>Brainlab</td>
<td>Navigation in neurosurgery</td>
</tr>
<tr>
<td>Invers</td>
<td>Car-sharing systems</td>
</tr>
<tr>
<td>Control expert</td>
<td>Automated car damage processing, a few hours instead of several weeks, 13 countries</td>
</tr>
<tr>
<td>Formel D</td>
<td>Automotive services, 9500 employees, 80 branches worldwide</td>
</tr>
<tr>
<td>Wirecard</td>
<td>Back office banking, market cap. €23 billion</td>
</tr>
<tr>
<td>RIB Software</td>
<td>Five-dimensional software for construction</td>
</tr>
<tr>
<td>Riskmethod</td>
<td>Supply chain – big data, alerts 1.5 days earlier</td>
</tr>
</tbody>
</table>
Autonomous Driving

Patents registered worldwide since 2010

Total: 7313

3568 (48.8%) from Germany

Source: Hubertus Bardt, Deutschland hält Führungsrolle bei Patenten für autonome Autos, IW-Kurzberichte 61, Institut der Deutschen Wirtschaft, Köln, personal mail June 6, 2018.
In digitalization ecosystems (collaboration, co-opetition) play a larger role than in other areas, because the Hidden Champions are entering new uncharted territory. Still, they are cautious!
Ecosystem Case: Bosch Connected World

House Exhibition (Hausmesse Berlin, May 2019)

VOLOCOPTER

BOSCH

Microsoft

CISCO

amazon alexa

Google

HUAWEI
Ecosystem Case: Electronic Interface – Hidden Champion

- Cooperation with Building and Building Equipment companies to integrate electronic components directly into building modules
- Strive for "Omni-Ecosystem-Compatibility", modularization which makes integration easier
- Intensified collaboration with universities/research institutes
- Ongoing discussion with cloud companies, e.g. Microsoft
Ecosystem Case: Würth Electronic
Revenue 891 million €, 8 346 employees

Ecosystems Sourcing
- Recruiting of software partners to enhance product values
- Set up office in Berlin

Collaboration
- Mentor of start-ups
- Takes minority stakes
- Engaged with 7 start-ups

Value Creation
- High-quality know how and products
- From start-up to scale-up
Not Only in Berlin: “Hinterland-Allianz”

Bielefeld/Eastern-Westphalia

11 large Family Companies (Miele, Dr. Oetker, Claas, ...)
cooperate with 18 regional start-ups

But there are also HCs which remain cautious and self-reliant:

"We invest massively from our own strength in digital business models."

Vorwerk, FAZ 24.5.2019

"Hidden Champions pursue open innovation and networking without compromising control."

ZEW-Leibniz Centre Mannheim 2019
Extended Ecosystems for Digitalization

- Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI)
  Saarbrücken/Kaiserslautern, Public-Private Partnership, 1 000 employees
- Fraunhofer-Gesellschaft for Applied Research, 80 Institutes, 25 000 employees
- Technical Universities: Aachen, Karlsruhe, Munich, Berlin

Weaknesses of German digital ecosystems:

- Speed: too slow in implementation
- Lack of Venture Capital
- Too few scale up
- Talent will remain a bottleneck!
In digitalization we have to distinguish between B2C and B2B. While B2C is an American and Chinese game, German Hidden Champions are very strong in B2B-digitalization. They are increasingly open to, relying on, and creating digital ecosystems. I expect that they will work towards further integration and control of the digital competencies. This is consistent with their traditional attitude and also with what the big digital players do.
A Few Words on Simon-Kucher & Partners

- 1 350 employees
- Revenue 309 million Euros
- 39 offices in 25 countries
- Recognized as best pricing/marketing/sales consultancy in Germany, UK, France, USA
- Heavy digitalization initiatives, so far on our own
Thank you!
Hermann Simon

- Hermann Simon is a member of Thinkers50, the list of the world's 50 most influential management thinkers (rank 25)
  https://thinkers50.com/biographies/hermann-simon/

- Since 2005, he has continuously been elected the most influential living management thinker in German-speaking countries
  www.managementdenker.de, Internet Survey, n=729

- Rank 109 in Cicero-magazine ranking of 500 most important intellectuals
  Die 500 wichtigsten Intellektuellen, Cicero, 2/2019
Hermann Simon

Hermann Simon is the Founder and Honorary Chairman of Simon-Kucher & Partners. He is an expert in strategy, marketing and pricing. He is the only German in the Thinkers50 list of the most influential international management thinkers in the world. In German-speaking countries he has been continuously voted the most influential living management thinker since 2005. The magazine Cicero ranks him in the top quarter of the 500 most important intellectuals.

Before committing himself entirely to management consulting, Simon was a professor of business administration and marketing at the Universities of Mainz (1989-1995) and Bielefeld (1979-1989). He was also a visiting professor at Harvard Business School, Stanford, London Business School, INSEAD, Keio University in Tokyo and the Massachusetts Institute of Technology. From 1995 to 2009 he was CEO of Simon-Kucher & Partners.


Simon was and is a member of the editorial boards of numerous business journals, including the International Journal of Research in Marketing, Management Science, Recherche et Applications en Marketing, Décisions Marketing, European Management Journal as well as several German journals. For several decades he regularly wrote columns for the German business monthly Manager Magazin. As a board member of numerous foundations and corporations, Professor Simon has gained substantial experience in corporate governance. From 1984 to 1986 he was the president of the European Marketing Academy (EMAC). Simon is co-founder of the first Special Purpose Acquisition Company (SPAC) listed on the German Stock Exchange in Frankfurt, and the first search fund in Germany.

A native of Germany, he studied economics and business administration at the universities of Bonn and Cologne. He received his diploma (1973) and his doctorate (1976) from the University of Bonn. Simon has received numerous international awards and holds honorary doctorates from IEDC Business School of Bled (Slovenia), from the University of Siegen (Germany) and from Kozminski University Warsaw (Poland). He is a honorary professor at the University of International Business and Economics in Beijing. In China, the “Hermann Simon Business School” is named after him.