

Medtech Delivers

The trend in growth for the Swiss medical technology industry is set to continue. Forecasts for 2009 are even predicting growth three to four times stronger than in the industry as a whole. The latest survey by Medical Cluster, Helbling Management Consulting AG and Roland Berger AG Strategy Consultants takes a closer look at the sector.

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Unlike traditional industries, medtech is an exceptionally interdisciplinary sector, positioned at the interfaces to microtechnology, materials sciences, electronics, pharmaceuticals and biotechnology. The fields of knowledge in which manufacturers of medical technology products need to have expertise are correspondingly diverse. As a result, investment in research and development is done at a high level – significantly higher than in the machine-building industry, for example. Organic growth in the medtech industry in Switzerland has led to the establishment of an interdisciplinary and cross-industry value-added chain, ranging from basic research, through product manufacturers, to international sales and marketing. Nowhere else in the world is the concentration of knowledge and expertise in medical technology so pronounced as here, and nowhere else are external competences so bundled together and close at hand: highly-specialized upstream

suppliers and service providers are all right in the immediate area, at most two hours' drive away.

Medtech – the facts

The Swiss medtech industry comprises around:

- 600–700 manufacturers and upstream suppliers
- 500–600 sales & distribution companies and service providers
- Gross sales in 2007 were around CHF 20.3 billion
- Today, around 45,000 people work in the medtech industry
- The number of employees rose over the past two years by 20%
- Average sales per employee is around CHF 460,000
- The export share is an average 66%
- 12% of sales flow back into research & development
- In absolute terms Europe-wide, Switzerland employs the third-largest number of people in medtech, ranking behind only Germany and Great Britain. In relative terms, Switzerland is the leading country for medtech, together with Ireland.





Global business

Switzerland is an attractive location for companies operating on a global footing. Many US-based groups have elected to site their European headquarters in Switzerland and benefit from its central position in Europe. Not only are international business relations maintained from Switzerland, but also a whole range of well-known groups manufacture complex and knowledge-based instruments and devices in Switzerland. In parallel with this, some Swiss companies have established themselves in their market segment and rank amongst the key players in their particular field.

No.	Company ¹	Sub-section of market	Head-quarters	Employees in CH 2007	Worldwide turnover 2007 in CHF m ²
1	Synthes	Orthopedics	USA	2,800	3,036
2	DePuy, J&J	Orthopedics	USA	2,000	4,950
3	Roche Diagnostics	In-vitro diagnostics	Switzerland	1,750	9,350
4	Ypsomed	Injection systems	Switzerland	1,210	287 ³
5	Zimmer	Orthopedics	USA	1,000	4,290
6	Sonova/Phonak	Hearing aids	Switzerland	920	1,205
7	Medtronic	Active and passive implants, vascular diseases and diabetes	USA	800	13,529
8	B. Braun	Orthopedics, hospital aids	Germany	750	5,716
9	Straumann	Dental implants	Switzerland	700	714
10	Stryker	Orthopedics	USA	600	5,662

¹ Manufacturers only

² Exchange rate used: CHF/USD: 1.10; CHF/EUR: 1.60

³ 2007/2008

Closer look

The recently-published study, titled “The Swiss Medical Technology Industry – 2008 Survey” by Medical Cluster, Helbling Management Consulting AG and Roland Berger AG Strategy Consultants, looks at the industry’s importance at the macro-economic level, its dynamism, the challenges it faces and its areas of operation. In this wide-ranging overview, which is so far unique in Switzerland, the country as a whole is mapped as a single large medtech cluster, with geographical focal points in the area around Berne, the Zurich region, the region around Lake Geneva, and Basel. The employment figures for the sector over the last two years have risen on average by 20%, which is far above the average for industry as a whole. Amongst product manufacturers, the rate of employment growth rose to 30%. This has also seen Swiss companies creating jobs abroad as well, albeit not with the same dynamic as experienced domestically. Gross sales reached CHF 20 billion by the end of 2007. The majority of the products produced

are destined for export, and the export share for manufacturers is around 66%.

Comparisons with other countries indicate that the medtech industry has developed from being a relatively unimportant sector to being a genuine factor for growth. A Europe-wide comparison shows that only Germany and Great Britain employ more people in this sector. With around 45,000 full-time employees, Switzerland occupies a noteworthy third place. In relative terms (as a percentage of the overall numbers in employment), at 1.2% the medtech industry in Switzerland is in a leading position, along with Ireland. For major international company groups, Switzerland has now become a key location for research & development, production and distribution. Many US companies organize their business for Europe, the Middle East and Asia from a base in Switzerland.

The survey, conducted with just over 300 companies, reveals that product innovation is the critical success factor. An average of 12% of sales are ploughed back into R&D, which means that medtech companies invest

over-proportionately in this area – far more than is the case, for example, in the machine-building industry. The only sector with higher investments in product development is the pharmaceutical industry, with around 16% of sales. However, that industry is heavily involved in conducting basic research. The survey findings show a significant correlation between the R&D budget and the anticipated prospects for growth: manufacturers who are predicting high growth over the coming years are investing at above-average levels in R&D today. The forecast growth in sales is 8% p.a., which is four to five times higher than the figure for industry as a whole in Switzerland. In terms of export markets, the EU continues to be the most attractive export region, followed by the USA, Asia and Russia.

Challenges and strategic initiatives

Regardless of whether they are small-scale or major enterprises, the companies surveyed describe access to, and integration of, specialist knowledge as the biggest chal-

lenge for their company. There is clear evidence of the pressure that medtech companies are under to pick up on forward-looking technologies and trends, from the widest possible range of fields of knowledge, and to integrate these into the latest generations of products. The second-biggest challenge named by the industry is recruiting specialists. However, med-tech is not the only area faced with this problem. The significant shortage of specialists has now become a real hindrance to growth in all knowledge-intensive sectors in Switzerland. A further factor affecting medtech is that the specific skills needed can only be acquired within the sector, and only after several years of professional practice. This situation remains unsettling, as the appropriate policy measures to address this are yet to be implemented. The sector also sees major challenges in the ever more rigorous conditions and regulations for market licensing; the impact of these is increasingly being felt by the export-oriented companies, in particular.

In short, the uppermost concern in the sector is to drive forward product innovations, in order to secure success for one's own company for the long term. Simultaneously, however, it is also important to conquer new markets. Thus, companies are saying that Switzerland as an economic location is particularly helpful: medtech products which are branded "Swiss made" continue to be easy to sell and benefit from worldwide trust. ■

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Opportunity knocks

To keep pace with the fast developments in medtech R&D, Switzerland is dependent on foreign workforce. We asked Gianni Valeri, Director Business Lines Medical & Science Switzerland & Italy at Adecco Human Resources AG, about medtech's recruitment problem.

bg: Mr. Valeri, the medtech industry is not the only life science industry to suffer from a tremendous lack of personnel in Switzerland. How could this problem eventually be solved?

Gianni Valeri: One reason for the lack of specialists is that the medtech sector is highly dependent on a fluctuating global market of top scientists and engineers. While most local Swiss specialists, for example from renowned institutions such as the ETH, may indeed be highly qualified, a number of positions simply cannot be filled locally. Neither does the EU market offer the scope to do so. The political framework, by which I mean work permits from third countries in particular, are too restrictive and narrowly defined. So it is difficult for the recruiting sector to place these qualified candidates efficiently. We have also noticed a significant drift of investment in R&D away to markets such as the US or emerging Asian markets. Further legislative deregulation and simplifying Swiss employment policies for third countries would help attract more qualified specialists. With the high quality of life enjoyed in Switzerland, this would surely increase attractiveness.

How do you react to this as a specialized recruitment company?

Our overall strategy is to specialize in the recruitment of highly qualified candidates in the various business lines, one of which comprises "Medical & Science." An integral part of our specialization lies in a strong global network within the international life sciences spectrum, so we have established a functioning "science community" network in nine countries that encompasses proactive science consultants and a large pool of candidates from the field. While this allows our experts to talk to other experts within a dynamic, organic structure, it also permits us to directly source qualified candidates from a global talent pool database. We must get involved in this ever-changing and fluctuating global career stream and compete internationally, but the legislative framework still remains the largest hurdle.

While the trend in the medtech sector also points to increased global workforce mobility, industry specialists will go where the jobs and the career opportunities are. Aside our internal networks, we therefore rely on diversified, working sourcing channels such as job ads, online CV-tracking, direct candidate marketing, with university graduates as well, and keeping abreast of key market developments. This information ensures the efficiency and quality that such a specialized Swiss labor sector demands.

What are the most promising source countries for highly skilled staff in the medtech sector?

Traditionally, the lack of Swiss-qualified medtech engineers has meant looking directly across the borders to Germany, France, Benelux and the UK. These are strong "breeding pools" for qualified medtech engineers and specialists, but more recently, the EU region has also failed to yield enough candidates to satisfy Swiss demand for growth. The bilateral agreements on labor flows did open certain channels, but at the same time, they also stifle access to top scientists from the US, Canada, Russia, Eastern Europe and Asia – precisely where the 21st century's new, exciting developments in R&D are taking place. In consequence, these complex migratory policies for qualified candidates outside Europe are making quality recruitment and placement somewhat less efficient. Promising developments in recruitment policies and legislation could provide a positive future for a host of specialized international scientists in the medtech sector and could help further unleash Swiss competitive potential at this level.

Mr. Valeri, thank you for your time. ■

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