

European Micro- and Nanotechnology Industry Rules off 2009 and Moves on

Economic survey of the IVAM Microtechnology Network confirms losses in turnover, lower export shares and funding gaps - diversification and new products are now in demand

The impact of the ongoing economic crisis on the microtechnology, nanotechnology and advanced materials industries is expected to be less noticeable in 2010 than in the previous business year. A year ago, however, an improvement in the economic situation had been predicted by industry representatives for 2009 as well, a year that did not develop as positively as expected. But still, the expectations for 2010 prove that the industry has not lost its optimism. In the second half of 2009, “excellent business” has been reported by individual companies. Due to an increasing demand from the semiconductor sector, some companies have directly changed over from short-time work to weekend shifts.

Drops in turnover, orders and production, and funding gaps reported

In total, the European microtechnology, nanotechnology and advanced materials companies achieved a turnover of just under 44 billion Euros in 2009. According to the industry, sales in 2009 clearly went down, much more so than in the previous year, 2008. More than one quarter (27%) of the companies reported a turnover decreasing more than 10% - only one tenth of the companies (10%) had expected cutbacks on such a big scale for 2009 (figure 1). The percentage of companies that were able to report a turnover increasing more than 10%, however, has fallen from 30% in 2008 to only just 12% in 2009.

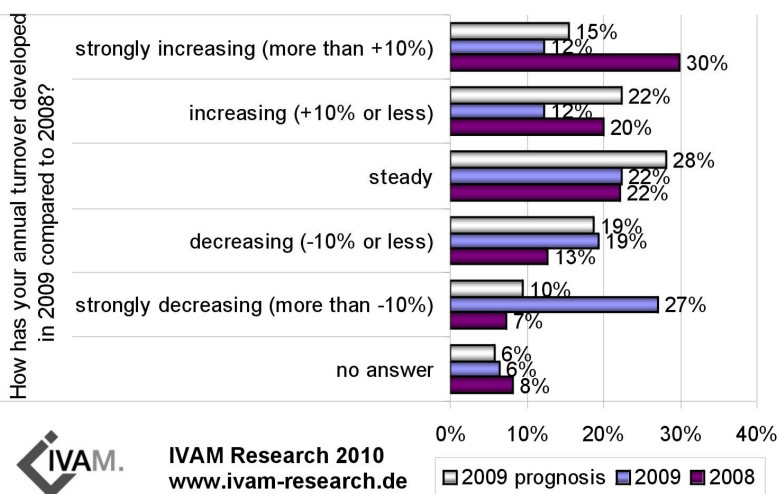


Figure 1:

Turnover development of the European micro, nano and materials industry.

File: 2010_Turnover_en.jpg

Other areas, next to the annual turnover, in which business significantly decreased during 2009, are the numbers of orders and the production volumes. More than three quarters (76%) of the companies report a decrease in orders for the year 2009, 63% cut back their production (figure 2). Still, more than half of the companies (54%) have been able to keep staff numbers steady. In total, the European microtechnology, nanotechnology and advanced materials industry employed 310,000 people at the end of 2009.

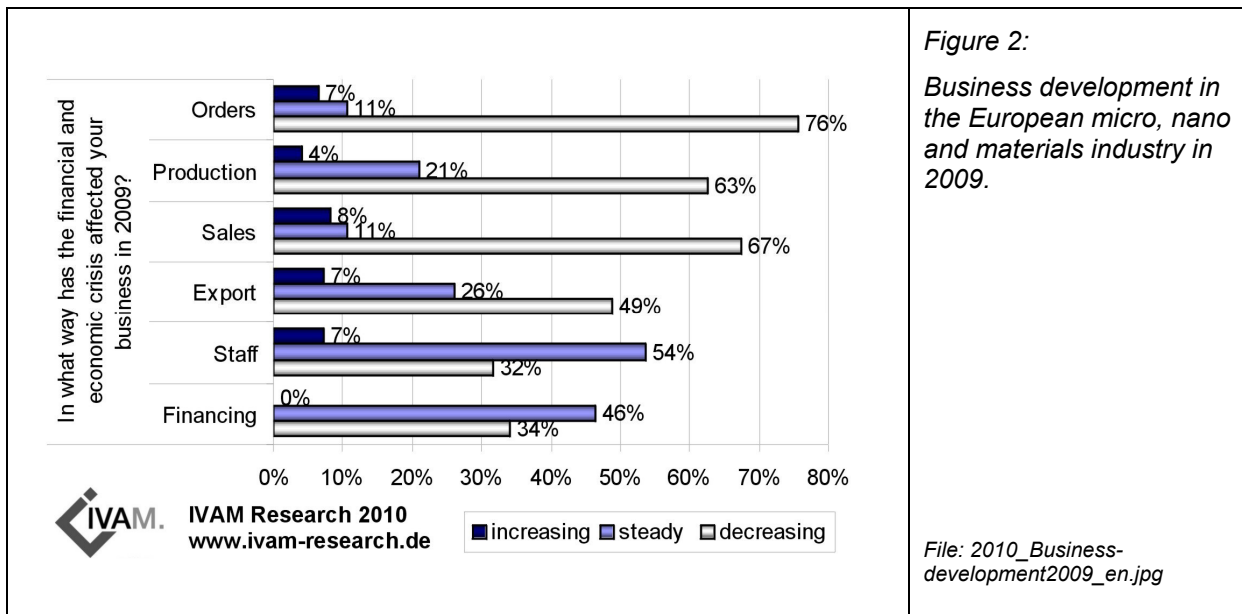


Figure 2:
Business development in the European micro, nano and materials industry in 2009.

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During 2009, financing remained stable for 46% of the companies (figure 2). But it is a striking fact that none of the responding companies has reported an improvement in its funding situation in 2009. The current restrictive approach to lending is gradually becoming a life-threatening problem for many high-tech companies. If the situation on financial markets, the willingness of banks to lend and the willingness of the companies to invest in research and development do not improve again soon, the industry may be facing a massive growth problem.

Industry responds with diversification, customer acquisition and downsizing

Diversification is still the most common reaction of the European micro, nano and materials companies to the economic crisis, in addition to intensified customer acquisition efforts (figure 3). Almost half of the companies (49%) have expanded their business, 82% of them by developing new products, 55% by entering new markets with existing or new products. However, the year before, 2008, the percentage of companies who tried to improve their business situation through diversification was 16% higher, at 65%. The measures the companies take as a response to the economic crisis betray a growing resignation: in 2009, the companies have more often taken restrictive measures than in the year before, for example, reduced labour costs (39% in 2009, 35% in 2009) or saved on R&D investments (30% in 2009, 14% in 2008). Other business areas subject to stronger saving in 2009 were marketing and the access of new regional markets.

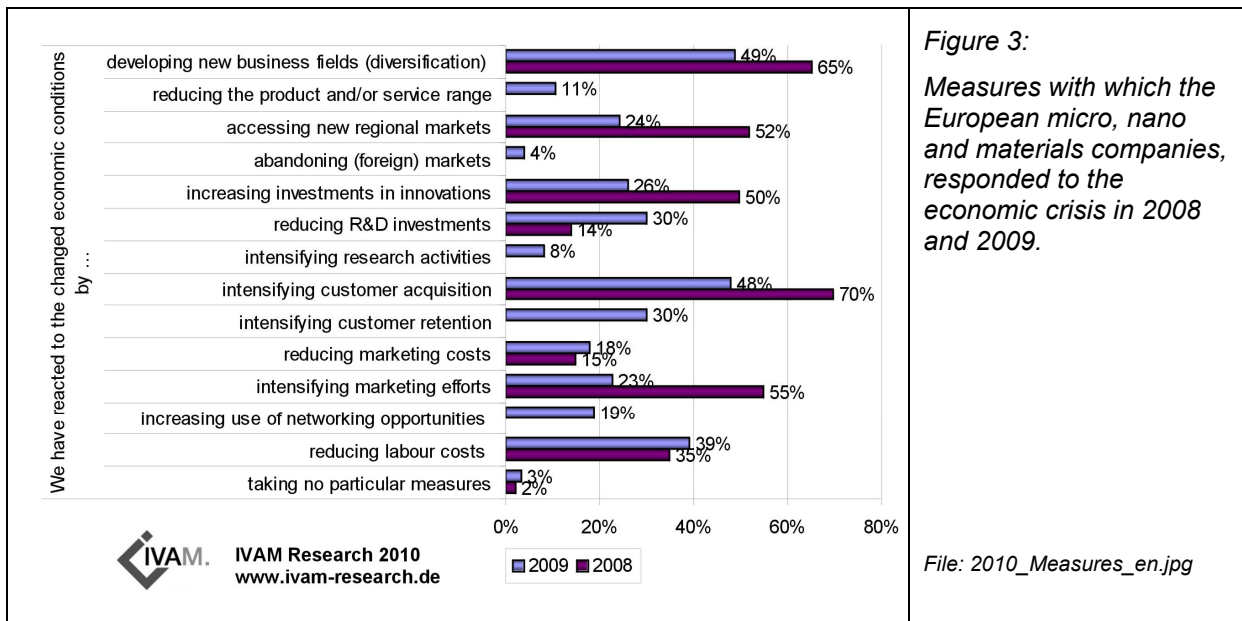


Figure 3:

Measures with which the European micro, nano and materials companies, responded to the economic crisis in 2008 and 2009.

In Germany, car scrapping scheme and short-time work take effect

In Germany, some of the supporting measures with which the federal government tried to counteract the economic crisis appear to have had a positive impact on the microtechnology, nanotechnology and advanced materials industry. Companies in Germany have more often than their European competitors been able to keep their staff numbers steady (figure 4). It seems that the possibility to work short time has helped to avoid too many redundancies. Half of the German companies reported a stable employment situation in 2009, compared to only 39% in the rest of Europe. 22% of the companies in Germany had to reduce staff in 2009, compared to 30% in the rest of Europe. The percentage of companies that were in a position to hire people during 2009 also was a little lower in Germany (23%) than in the neighbouring European countries (30%).

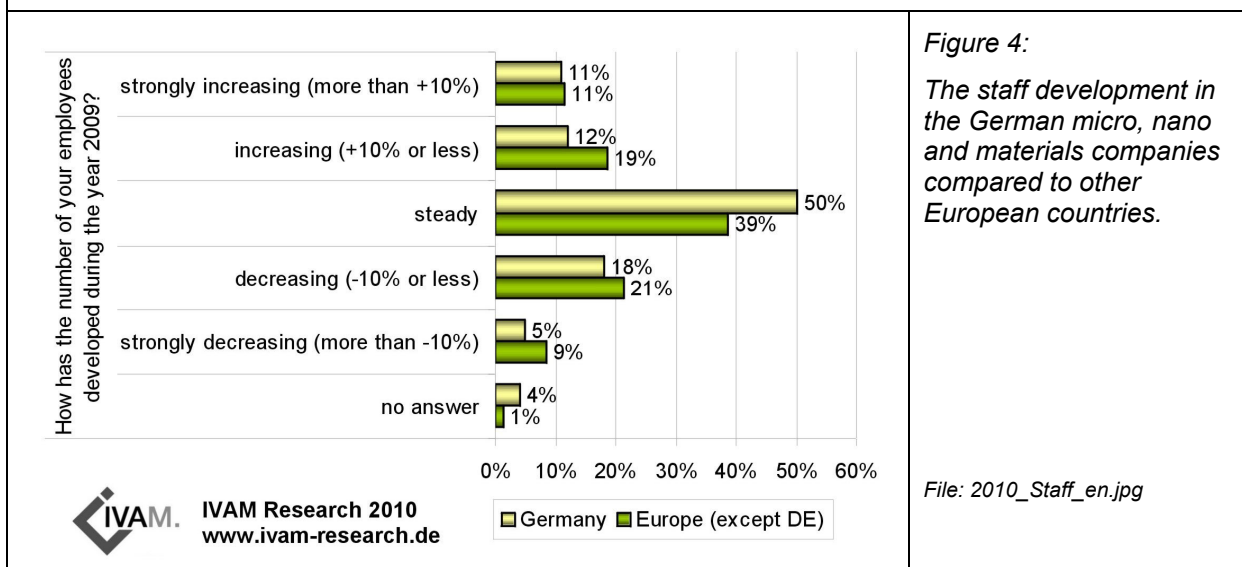


Figure 4:

The staff development in the German micro, nano and materials companies compared to other European countries.

Among the target markets of the German micro, nano and materials companies, the automotive industry has replaced the medical technology industry as the most popular market for the first time in years. Slightly more than half of the German companies (51%) supplied the automotive industry in 2009, whereas in the rest of Europe it were only 44%. It is likely that the car scrapping scheme has caused a short term boost to the benefit of the car producers and their supplying industries. How the markets are going to develop after the scheme has expired in the course of 2010 remains to be seen.

Export business is slow for German companies

In the export field, the situation in Germany seems to be worse than in other European countries. Since 2004, the German microtechnology, nanotechnology and advanced materials companies have suffered significant cutbacks on foreign markets. While the percentage of companies that achieved more than half of their turnover on foreign markets was still above 50% in 2004, it was only at 33% in 2009. In the rest of Europe, 58% of the companies achieved more than half of their turnover through export sales (figure 5). In the area of micro and nanotechnology, Germany is now far from being world champion in export. One reason: German companies more often address markets in Asia than their European competitors. Another reason: for the companies in other European countries Germany itself is by far the most important export country (figure 6).

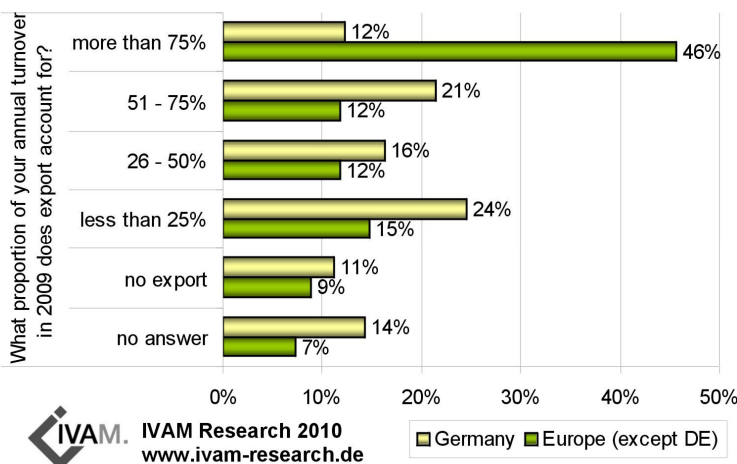


Figure 5:
The export sales of the German micro, nano and materials companies compared to other European countries in 2009.

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To the companies in other European countries apart from Germany, markets in Asia are becoming more popular, too. Almost half (47%) of the non-German microtechnology, nanotechnology and advanced materials companies intend to enter markets in Asia soon, whereas currently the share is still at 19%. China, for the first time, has caught up with Japan in the ranking list of Asian countries in 2009. Next to Japan, China, South Korea and Taiwan, the European countries now also more frequently aim for "exotic" markets, such as Russia and India.

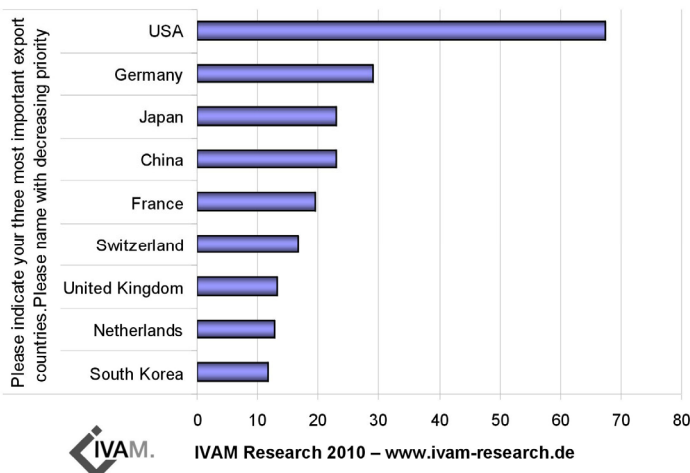


Figure 6:
The most important export countries of the European micro, nano and materials companies in 2009.

File: 2010_Export-countries_en.jpg

IVAM Research, the Economic Research Division of the IVAM Microtechnology Network, collects economic data in the fields of microtechnology, nanotechnology and advanced materials once a year. The survey in December 2009 has been addressed to 2,642 companies and research institutions throughout Europe, 251 (9,5%) of which took part in the survey. Information: www.ivam-research.de