

Brexit uncertainty dampens mood of European microtechnology industry

Predominantly negative outlook on economic effects

The microtechnology industry in Europe expects virtually no positive impulses from Brexit, neither for the industry nor for individual businesses. Industry representatives assume mostly negative economic effects. The results of a survey conducted by the IVAM Microtechnology Network shortly before the exit date more than anything else reflect the uncertainty about the future economic relations between Great Britain and the European Union after Brexit.

Outlook has worsened since "leave" vote

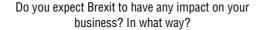
In the course of its economic data survey, the industry association IVAM has asked the industry about the expected impact of Brexit, as it did once before in 2016, before the vote that turned Brexit from a possibility into a fact. In 2019, shortly before the originally agreed upon exit date, the industry is much more pessimistic. Expectations, especially for the British industry, have invariably worsened since 2016, although – or probably because – the conditions for Britain's withdrawal are still not negotiated.

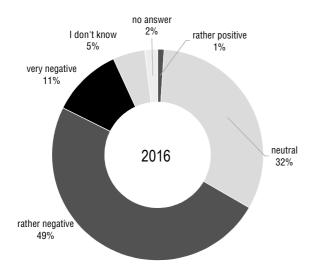
"Very many issues are unsettled, therefore uncertainty prevails at the moment, or the attitude that 'it will work out somehow'."

Majority expects negative impact on business

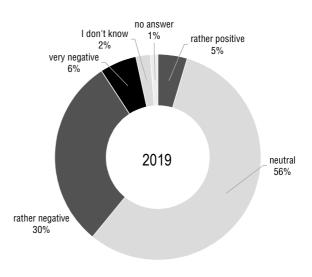
Although the effects of Brexit are expected to be relatively moderate in the rest of the EU, most of the microtechnology industry representatives still fear a negative impact on their own business. In 2016, before the vote, the majority (56%) believed that they would not be affected by Brexit, by 2019 it is just under a third (32%). Around 60% of respondents now expect Brexit to have a negative impact on their business, in 2016, it was only 36%. However, these fears are not reflected notably in the growth expectations of the companies, which were identified in the same survey. Of the respondents in the United Kingdom no one expects a positive effect on their business at present – in 2016, some respondents still had positive expectations.

According to research by the World Monetory Fund, manufacturing sectors like the chemical and transport equipment industry would be particularly affected by increasing trade barriers and because of their close integration into European production and supply chains, which might be disrupted by Brexit. This would also affect the microtechnology companies that are subcontractors to these manufacturing industries.





Do you expect Brexit to have any impact on your business? In what way?



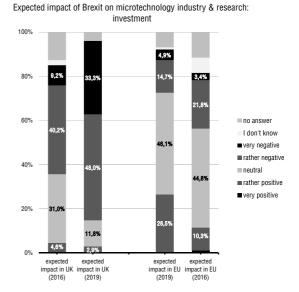
"The uncertainty has been terrible to manage at a business level over the past 3 months. With so much being unknown about the framework of how things will work in the future, we have been forced to delay investments and long term decisions. Our business network (suppliers & customers) currently have a rather negative short term outlook for 2019/20 regardless what now happens. [...]"

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Uncertainty slows down British industry: investment put on hold

The uncertainty is above all bothering the British industry. As long as the framework conditions for foreign trade relations remain unestablished, decisions and investments are postponed. Even if an agreement between the UK and the EU were soon reached, certain damage to business would not be averted, according to the comment of survey participant from the UK. Capital investment in the UK has already declined as a consequence of the Brexit vote, according to various economic reports. Expectations of the microtechnology industry regarding investment, too, have clearly dropped since 2016: then just under half (49.4%) of respondents said Brexit would have a negative impact on investment in the UK; in 2019, it is more than 80%.



Trade under difficult conditions: bureaucratic load increases in all of Europe

Trade relations between Great Britain and the European Union will very likely be regulated more strongly after Brexit. Britain's independence is expected to put a higher bureaucratic load on companies in both regions, the UK and the European Union. While in 2016 a negative impact of Brexit on regulations was predicted mostly for the industry in the United Kingdom, respondents now also expect the industry in the remaining EU countries to face more bureaucracy.

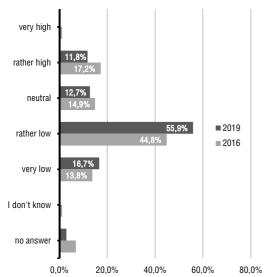
Among the British industry representatives a large majority today expect a higher bureaucratic load for the industry in their own country. In 2016, expectations were balanced. It now seems to have become clearer that Britain, detached from the EU, will not be able to act as autonomously as Brexit campaigners are propagating – especially in case of a "no deal" Brexit.

Dwindling hope for favorable trade agreements

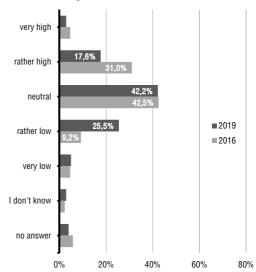
While negotiations between the UK and the EU have reached a dead end, hope of a deal that could give Britain some benefits of EU membership is dwindling. The prospect of a trade agreement between the UK and the EU was rated as rather low in 2016 already by more than half of microtechnology industry representatives, today almost two thirds of respondents see a poor chance.

Regarding agreements between the UK and non-European countries, the industry is more optimistic – but still more pessimistic than three years ago. The odds that Britain will be able to negotiate favorable trade agreements outside the EU were rated as low by just under 14% in 2016, today it is just over 30%. Britain will certainly need to renegotiate or expand its international trade relations on many frontiers.

After Brexit, how are the chances that Britain will be able to negotiate advantageous bilateral treaties / individual free trade agreements with the EU?



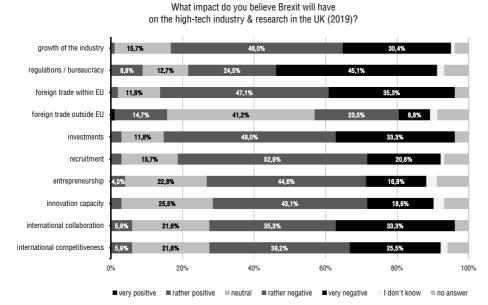
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UK Industry more strongly affected than rest of Europe

The general expectation is that Brexit will affect the industry in the UK more strongly than the industry in the rest of Europe.

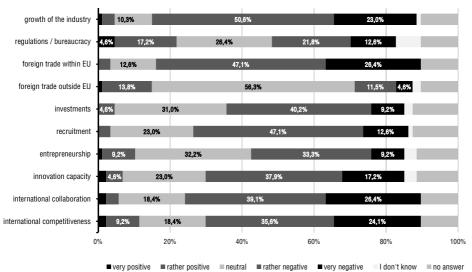


Brexit might put a damper on the growth of the microtechnology industry in the UK: 78.4% of the surveyed industry representatives expect lower growth as a result of Brexit (2016: 73.6%).

In 2019, a significantly higher proportion of participants than in 2016 expect **bureaucracy** to increase in the course of Brexit: in 2016, just under 35% were convinced of a (rather / very) negative development of regulations and bureaucracy, in 2019 it is close to 70%, almost twice as many.

Trade relations with the EU will very probably be more difficult for UK companies when they have left the EU – 82.9% of respondents expect this in 2019 (73.5% in 2016).

What impact do you believe Brexit will have on the high-tech industry & research in the UK (2016)?



Great Britain might boost its **trade relations outside the EU** in the course of Brexit – this was estimated by about 15% of respondents in 2016 and 2019 each, but in 2019 a much higher proportion expect trade relations outside the EU to get more difficult.

Expectations of the microtechnology industry regarding investment have clearly dropped since 2016 (rather / very negative 2019: 81%, 2016: just under 50%). In the future, after the abolition of free movement, the United

free movement, the United Kingdom might find it harder to recruit enough skilled labor: 73.5% of respondents think so today, about 13% more than in 2016.

Regarding **entrepreneurship** in the UK, expectations have also decreased since 2016: more than 60% anticipate a negative trend in 2019, compared to just over 40% in 2016.

Brexit will affect the British industry's **innovative capacity** over 60% of respondents say in 2019 compared to 55% in 2016.

Research institutions more worried about international cooperation

R&D and university institutions see a more negative trend in **international cooperation**. 76% of research organizations (67% of companies) believe that international cooperation for or with organizations in the UK will suffer from Brexit.

International cooperation will be more difficult for companies in the UK after Brexit according to 68% of respondents (2016: 65.5%). Almost 65% expect the UK industry's international competitiveness to be limited after Brexit (2016: just under 60%).

UK industry more positive, especially regarding trade outside the EU

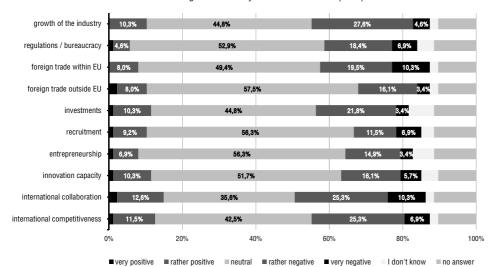
Industry representatives in the UK are less pessimistic about the impact of Brexit in their own country than other Europeans. For instance, the British have clearly more positive expectations of the development of **trade outside the EU**. And they expect to a lesser extent a damage to growth, innovation and competitiveness.



Impact in the rest of Europe comparatively moderate

The industry in the rest of Europe is supposed to be affected by Brexit to a lesser extent, but the outlook was better in 2016.

What impact do you believe Brexit will have on the high-tech industry & research in the EU (2016)?



Almost half of respondents (49%) think that the **growth of the industry** in Europe will not suffer from Brexit. That the industry's growth could be affected is expected by 38.2%, which is 6% more than in 2016.

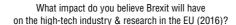
In 2019, participants are much more concerned than in 2016 that the market between the UK and the EU will be more strongly regulated in the future: over 50% of respondents now expect (rather / very) negative effects on regulations and bureaucracy in the EU; in 2016 it was only about 25%.

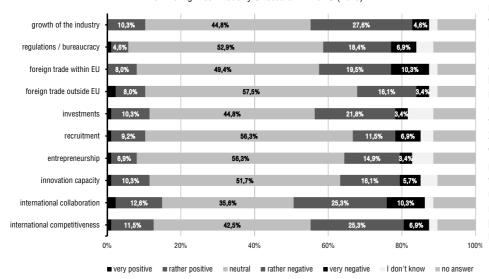
Trade relations within the EU will not be affected by Brexit, around 54% of respondents say. In fact, the outlook has improved slightly compared to 2016.

Two-thirds of respondents are convinced that regarding **trade relations outside the EU**, Brexit will not change anything for European companies.

Expectations regarding **investment** are rather balanced with a positive bias: 26.5% think that investments in the EU could develop positively (2016: 11.4%), almost 20% think that investments will decline (2016: 25.2%).

Will the EU industry find it harder to recruit enough skilled workers in the future? The respondents are undecided about Brexit's impact on recruitment (about 20% each positive / negative, almost 50% neutral).





The industry does not expect much influence on **entrepreneurship** in the EU (around 57% "neutral").

The same applies to the **innovative capacity** of the industry in Europe (around 60% "neutral").

Expectations for **international cooperation** have improved a little: around 30% expect limitations in 2019 compared to just under 35% in 2016

A similar estimation was given regarding the **international competitiveness** of the microtechnology sector in the EU: around 32% expected a negative impact in 2016, and only 27.4% in 2019.

About the IVAM Survey

Once a year, the IVAM Microtechnology Network collects economic data among companies and research organizations that are active in the fields of microtechnology, nanotechnology, and related key enabling technologies. In February and March 2019, 3,243 companies and research institutes in Europe have been asked about their economic situation and expectations, their international activities and their expectations regarding the impact of Brexit.

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