

Global **Industry**  
Competitiveness  
Index 2020

Executive Summary

Results for the  
chemical and  
pharmaceutical  
industry

August 2020

**Published by**  
BAK Economics AG

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# Editorial

The “Global Industry Competitiveness Index” by scienceindustries assesses for the first time the global competitiveness of the chemical, pharmaceutical and life sciences industries in Switzerland.

The figures provide an impressive demonstration of the fact that the largest Swiss industry for exports and research is among the world leaders regarding performance, market position, capacity for innovation and technological leadership – and when it comes to competitiveness, our industries rank second behind the USA. It is the intensive research activity in particular (the chemical industry ranks first in the world, pharmaceuticals ranks fourth) which allows our industries to hold their own so successfully against the global competition.

Fortunately, Switzerland is a very attractive business location, although when it comes to business regulation the country is only in mid-field: there clearly is room for improvement and also need for action on this behalf.

The globally rampaging coronavirus pandemic has shown how important overall social and political conditions are. Switzerland has got many things right, from dealing with the coronavirus pandemic to structuring its economic framework conditions.

However, the forthcoming referendum in September on “Freedom of Movement” with the EU should definitely not be underestimated. If it passes, it would result in an annulment of the Bilateral Accords I with the EU and very likely have a major impact on Switzerland as a centre for innovation and production.

The “Corporate Responsibility” Initiative will also be put to voters in November. This is again far too ambitious in scope and should be clearly rejected.

I am confident that Switzerland will continue to take the right decisions to maintain its long-term prosperity – at the very least, scienceindustries will be working tirelessly to this end!

Zurich, August 2020



A handwritten signature in blue ink, appearing to read 'M. Leuenberger'.

Dr. Matthias Leuenberger

Chairman scienceindustries



# Executive Summary

## Chemical and pharmaceutical industry stands out for its first-rate competitiveness

The Swiss chemical and pharmaceutical industry is of major significance for the country's growth and prosperity. Its very high international competitiveness has allowed it to benefit considerably from favourable global trends in demand over the last ten years, making it the main growth engine of the Swiss economy.

This high degree of competitiveness is also a result of the first Global Industry Competitiveness Index (GICI) by BAK Economics, which ranks the Swiss chemical and pharmaceutical industry in second place globally. The most competitive nation is USA, with Ireland in the third position.

It is not just its successful performance that demonstrates how competitive the Swiss chemical and pharmaceutical industry is – above all, it is the sector's strength in innovation: Swiss companies invest heavily and with success in research and development of new products. By doing this, they are laying the foundation to hold their own against the global competition in the future.

This is also necessary as the competition especially regarding innovation is increasing sharply. Asian countries, especially China, continue to step ahead in cutting-edge research. It is therefore all the more important that Switzerland can continue to be able to play the trump card of being a first-rate, dependable business location. This includes comprehensive access to foreign labour markets, which is at risk due to upcoming vote on the "Immigration limitation Initiative".

Without freedom of movement with the EU, Switzerland as a location would be much less favourably placed in terms of corporate competitiveness in the global struggle for talent and top researchers.



Global Industry Competitiveness Index for the chemical and pharmaceutical industry 2020, Index 100 = peer group average

Source: BAK Economics

## A new analytical instrument: the Global Industry Competitiveness Index

Global competitiveness is essential for the success of the chemical and pharmaceutical industry and its contribution to economic growth.

But how can this competitiveness be measured?

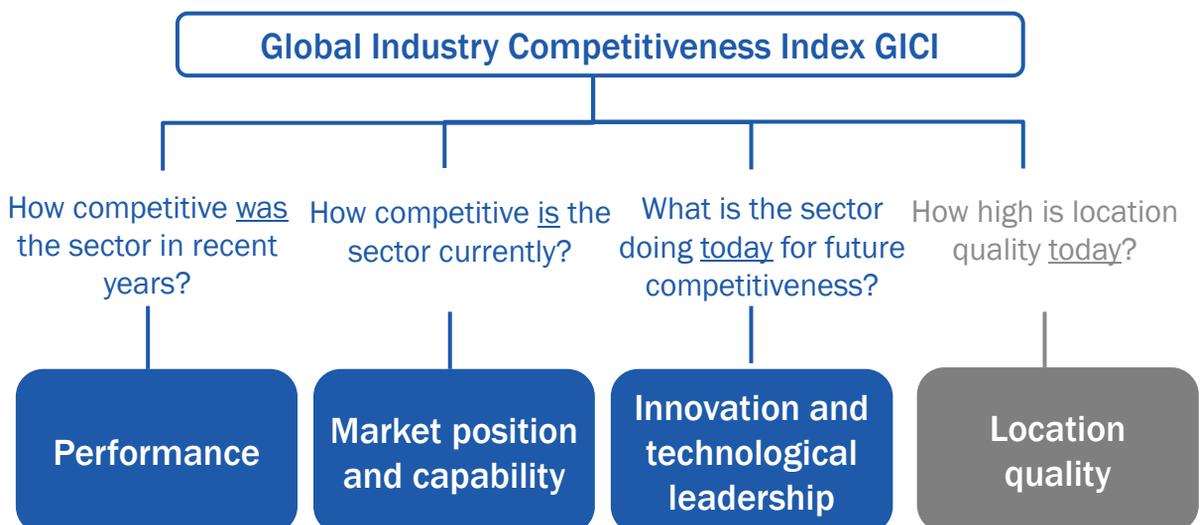
The World Economic Forum (WEF) uses the Global Competitiveness Index to measure the competitiveness of economies. But the sectors in an economy are not subject to global competition to the same degree – some companies do not even compete globally at all.

At the same time, the growth of the overall economy and the prosperity of all depend very heavily in the long term on how successful export-oriented companies are in global markets.

A small, open economy such as Switzerland is especially strongly dependent on this success.

The Global Industry Competitiveness Index (GICI) by BAK Economics takes account of this inter-relationship. Hence the GICI does not focus on the whole economy, but on the key export-oriented industries in Switzerland.

The GICI uses a broad set of indicators covering performance, market position, intensity of research success in innovation and location factors to measure the international position regarding competition and innovation of the chemical and pharmaceutical industry in Switzerland.



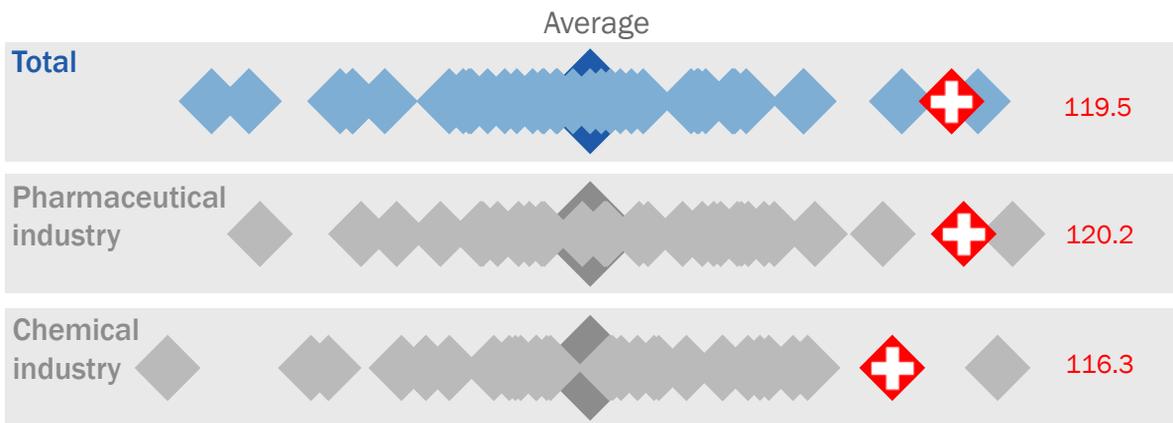
Source: BAK Economics

## Switzerland: world-class in the chemical and pharmaceutical industry

In both the pharmaceutical and chemical industry Switzerland ranks among the leaders in the Global Industry Competitiveness Index. In the overall ranking Switzerland is in second place: behind the USA and ahead of Ireland.

This puts Switzerland among the most competitive countries in the world compared to other major production locations.

### Global Industry Competitiveness Indices



#### GICI 2020

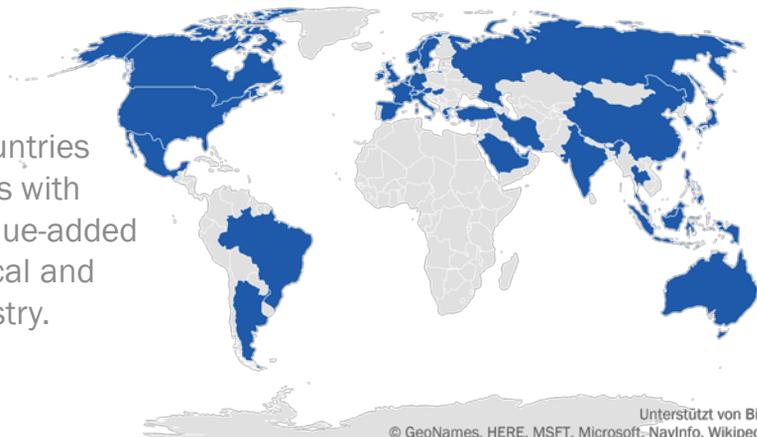
100

The index value of 100 is equivalent to the average of the countries in the peer group. Deviations from the mean are measured in standard deviations (a metric of the dispersion between all countries). An index of 110 (120) means the index value for that country lies one (two) standard deviations above the peer group average.

Source: BAK Economics

### Global Peer Group

The peer group of countries consists of 30 nations with the greatest gross value-added globally in the chemical and pharmaceutical industry.



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## Strengths and weaknesses of the Swiss chemical and pharmaceutical sector

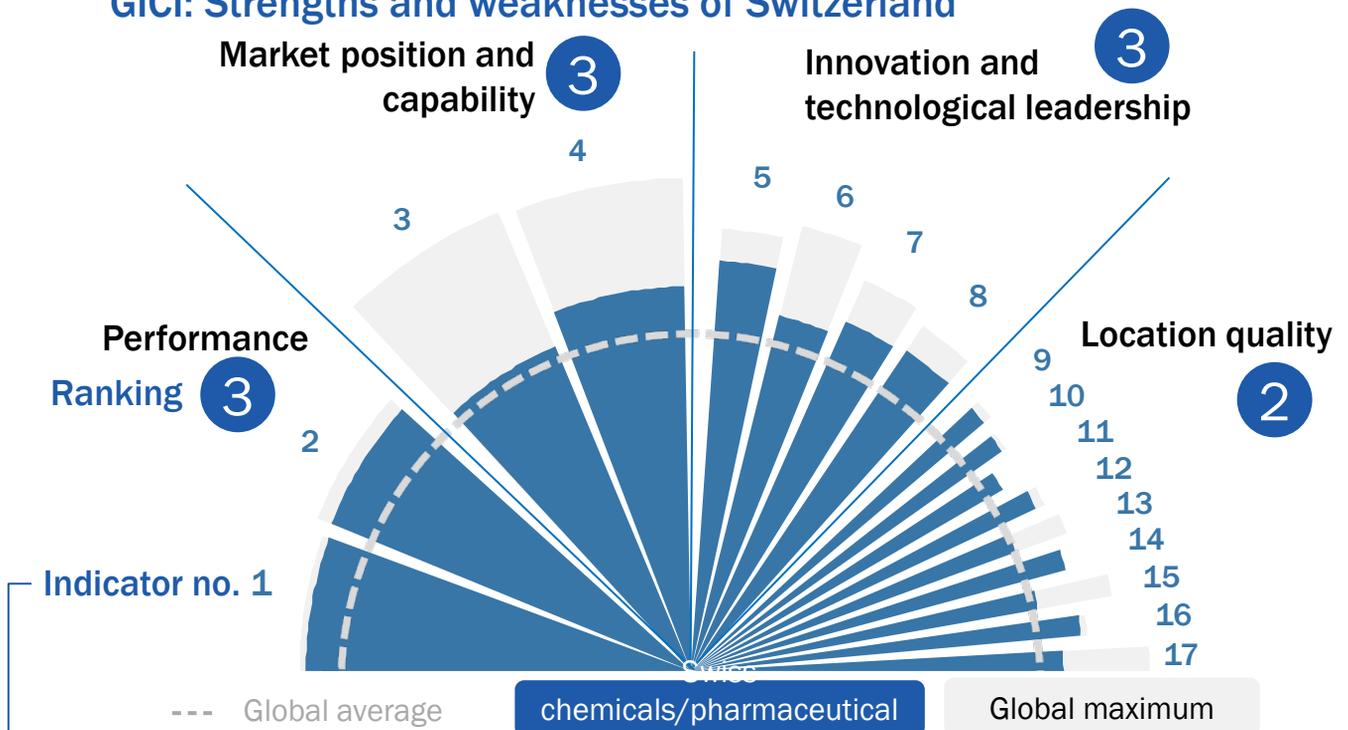
The Swiss chemical and pharmaceutical industry enjoys an overall above-average position in all components of the competitiveness index.

Switzerland's greatest competitive advantages are the performance in recent years, the high research intensity and the successful cutting-edge research.

Chemical and pharmaceutical companies in Switzerland also benefit from overall above-average framework conditions.

Switzerland's trump cards include macroeconomic and political stability, the quality of infrastructure, a high general level of qualification, the flexible labour market and an attractive tax environment.

### GICI: Strengths and weaknesses of Switzerland



- 1 = Growth in value-added, 2= Growth in productivity, 3 = Share of value-added, 4 = Productivity, 5 = R&D spent per employee, 6 = R&D spent/value-added, 7 = R&D positions per employee, 8 = Top patents per employee, 9 = GCI pillar Infrastructure, 10 = GCI pillar Financial system, 11 = GCI pillar Macroeconomic stability, 12 = GCI pillar Institutions, 13 = GCI pillar Business dynamism, 14 = GCI pillar Skills, 15 = GCI pillar Product market, 16 = GCI pillar Labour market, 17 = Taxation

Swiss GICI component values, chemicals and pharmaceuticals jointly, 2020

Source: BAK Economics





# Information

## scienceINDUSTRIES

S W I T Z E R L A N D

### Business Association Chemistry Pharma Life Sciences

scienceindustries is firmly committed to an innovation-friendly environment for the companies that belong to it. Founded in 1882, it currently has around 250 members. The largest Swiss research and export industry employs over 70,000 people in Switzerland and over 338,000 worldwide. In Switzerland, more than 12,000 highly qualified employees work in research. A further 138,000 staff in other sectors depend on the chemical, pharmaceutical and life sciences industries.



BAK Economics AG (BAK) is an independent Swiss economic research and consultancy institute. Founded as a spin-off from the University of Basel, BAK stands for the combination of scientifically based empirical analysis and its practical implementation since 1980.

The research focuses of BAK include economic analyses of life sciences and other key sectors of the Swiss economy. BAK has developed a broad range of instruments for this, among them global benchmarking of regional industry clusters.

In addition to traditional economic research BAK also offer various economic advisory services for companies. The broad infrastructure of models and analyses serves as a starting point for in-depth analyses of company-specific issues and developing planning and strategy solutions.

BAK has offices in Basel, Lugano and Zurich.

**BAK Economics - economic intelligence since 1980**

**[www.bak-economics.com](http://www.bak-economics.com)**