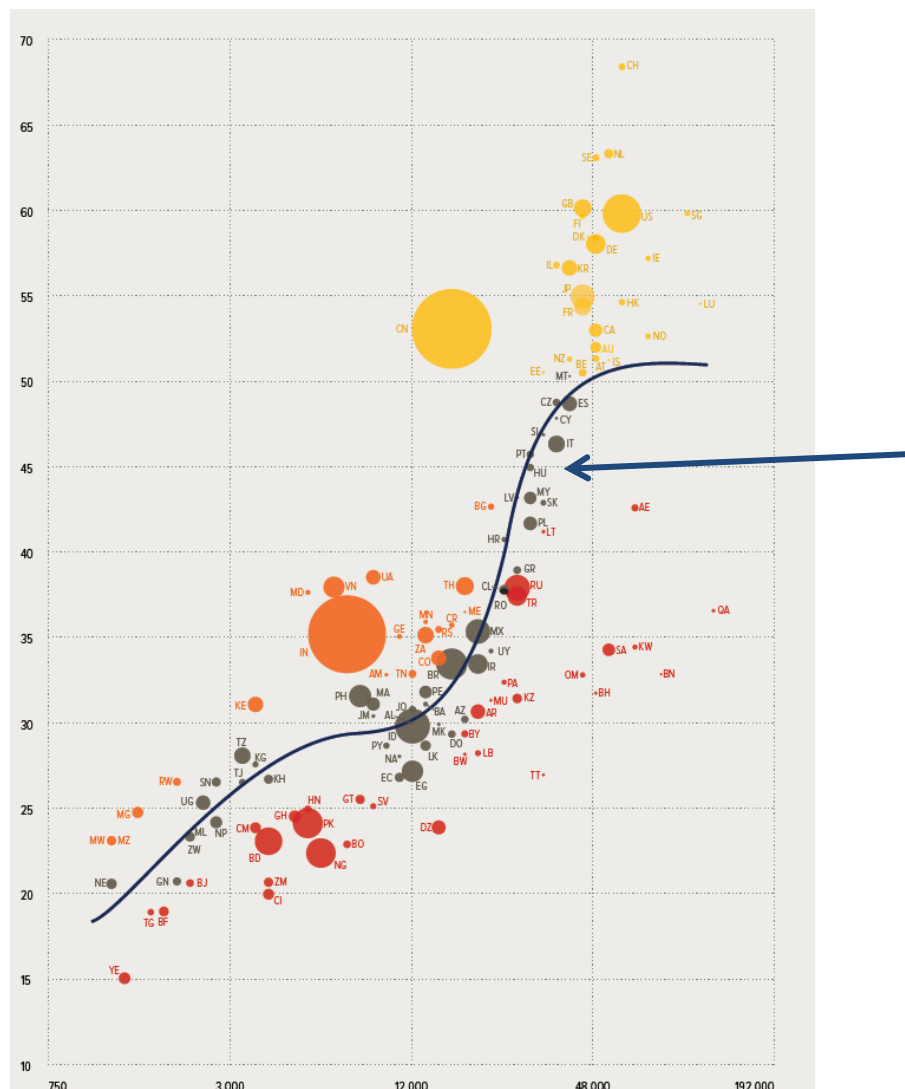


Annex 1: The international status of Hungarian science and R&D, as well as the potential for progress

The status of Hungarian science and Hungarian R&D on the international scene is commensurate with the country's level of economic development. In 2017, Hungary was ranked 23rd amongst the 28 EU Member States in the GDP per capita ranking based on purchasing power parity, while in the EU's Innovation Scoreboard, published in 2018, Hungary ranked 21st. Given that the countries with the world's highest innovation performance – adjusted for size of the country's economy – are also members of the EU, such as Sweden, Denmark and Finland, the ranking of Hungary can be considered quite fair, even in international terms. In another ranking, the Global Innovation Index, which covered 126 countries and also came out in 2018, Hungary ranked 33rd, overtaking such countries in the region as Poland, Slovakia and Romania. If we compare Hungary's score in the R&D ranking with that of the GDP per capita ranking, we can see that Hungary is performing commensurately with its level of development.



Once it becomes known within what timeframe and to what extent Hungary is set to improve its innovation performance globally, then it will be much easier to specify the framework, both in terms of institutions and in terms of funding, which will need to be put in place with a view to achieving the aims thus identified.

However, it must be kept in mind that part of science and part of what stands for research and development are simply not capable of bringing about an immediate and direct improvement in competitiveness, which is not only the case in Hungary, but also in those countries which are at the upper end of the R&D rankings. If we want to take the next step, we need to concentrate more on the connection between basic research and innovation, and on the extent to which it is reasonable to maintain such a connection. According to the concept of linearity, basic research, applied research and the innovation phase come consecutively. But it must be noted that basic research is not in a position to be directly at the service of innovation, therefore, basic research will need to rely on major state subsidies.

As regards the national system of innovation itself, for any real improvement in competitiveness, it is not enough to provide support to the fields of activities and economic actors capable of directly boosting competitiveness; support is needed for all elements in the system, in addition to an improvement in the financial conditions of its operation. From among the elements that make up the innovation environment, the corporate sector and, more specifically, small and medium size enterprises (SMEs), are the ones whose development must be a top priority; we need to empower the corporate sector to become the driver of innovation. To illustrate what is at stake, an example can be taken from the automotive industry: the typical Hungarian supplier, representative of the SME sector, manufactures car seat upholstery, so its R&D and innovation activities will necessarily be restricted to that product area, whereas the enterprises in Germany which belong to the “Mittelstandsunternehmen” category will most likely be involved in the manufacturing of electronic parts, and therefore their R&D will also be aligned with that. This comparison shows that companies operating in different countries vary both in terms of their main spheres of activities and in terms of their level of expertise.

From all the above it can be inferred that the system of innovation will not become any better if we simply make changes to certain elements in it without making sure that the content of these elements is adequate. All this implies that the foundations of the Government’s innovation policy would need to be reconsidered for a more efficient use of the subsidies provided for corporate innovation.

When it comes to the set of comments and proposals collected regarding the topic of the restructuring of the MTA research network, it must be taken into account that MTA and its network of research institutions, as an entity taken as a whole, is connected to the Hungarian innovation system only at certain points. The performance and the efficiency of this entity cannot be assessed from the perspective of innovation alone. Parts of its scientific mission which do not have or cannot be easily shown to have direct innovation content (see basic research work) are nonetheless just as highly valuable in terms of the country’s assets, and as it is, the Hungarian Academy of Sciences cannot be required to exclusively serve the system of innovation.