

# Innovation.bg

*Innovation.bg* is the flagship initiative of ARC Fund.

- The *Innovation.bg* report provides annual assessments of the Bulgarian economy's innovation performance and of the innovation system's current status and development prospects. The leading theme of *Innovation.bg* 2019 is the European science and innovation policy in the next EU program period 2021 – 2027 and the instruments envisaged to achieve its ambitious goals.
- The *National Innovation Forum* is a platform for exchange of ideas and cooperation among the government, the business community and research organizations. It enhances the performance of Bulgarian companies and boosts the innovation potential of the economy by promoting the introduction of new products and technologies and by facilitating business contacts with European partners.
- The *Innovative Enterprise of the Year* contest is open to participants from all sectors of industry nationwide. The award acknowledges innovative enterprises which have developed new, or have significantly improved their existing products, services or processes over the last three years.

## *Innovation.bg* 2019

*Innovation.bg* is the Applied Research and Communications Fund's overall platform for shaping the national innovation policy agenda. *Innovation.bg* offers expertise, own policy building and impact assessment know-how.



Since 2004 the *Innovation.bg* report presents a comprehensive annual performance assessment tool, which provides independent analysis of the national innovation system and the innovation performance of the national economy, based on original survey and other micro-studies. *Innovation.bg* applies its own original methodology to assess the degree of business innovation activity, based on the understanding of the types of innovation and the degree of novelty of introduced innovation products and processes. Traditionally, the *Innovation.bg* report assesses Bulgaria's innovation potential in five fields:

- 1) Gross Innovation Product – reviews the results of the national innovation system, the main innovation benchmarks for the enterprises and the obstacles to their innovation initiatives.
- 2) Entrepreneurship and innovation networks – outlines the characteristics of two major sources of innovation in the Bulgarian economy – the setting up of new enterprises and the participation of Bulgarian producers in national and international

value chains for the development of new products and services.

3) Investment and Financing of Innovation – considers the role of foreign direct investment and the import of R&D products and knowledge in the transfer of foreign products and knowledge as well as the available instruments for R&D investment.

4) Human capital for innovation – describes the available human resources for the adoption of foreign and the creation of local innovation in the economy.

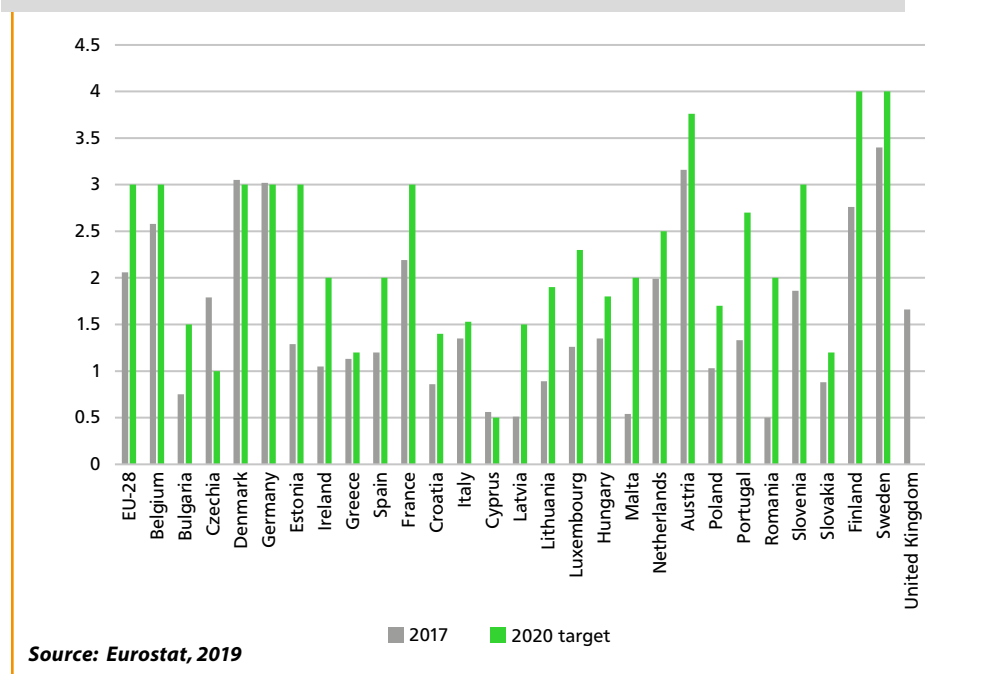
5) Information and communication technologies (ICT) – analyses the existing ICT infrastructure as R&D catalyst.

The leading theme of *Innovation.bg 2019* was the European science and innovation policy in the next EU program period and the instruments envisaged to achieve its ambitious goals. The concept of smart specialization launched by the European Parliament and the Council, has proven to be a successful tool for pursuing EU cohesion policy at regional level and will continue to play a key role in the next program period.

In this regard, the development of a transparent and effective innovation policy for the smart specialization of Bulgaria for the program period 2021–2027, which reflects and develops the national innovation potential and competitive advantages of the regional business communities, should focus the attention of the Bulgarian government in the next year.

The report points that by 2018, there were four EU countries that managed to exceed the Europe 2020 R&D spending target of 3% of the GDP. For Denmark and Germany, this also means exceeding the national target, which is the same as that of the EU-28. Austria, Finland and Sweden have the most ambitious targets to be reached by the end of the program period, which is the reason why the three countries have not achieved them. One year before the end of the program period, Bulgaria is still part of the group of modest innovators, having reached only 50% of the national target of 1.5% of R&D spending of the GDP.

Fig. 1. R&D spending as share of GDP, EU-28



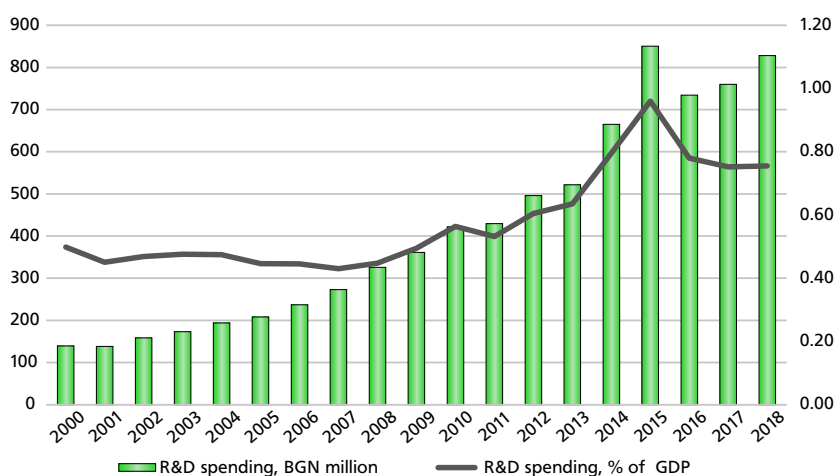
Business is the main sector within the national innovation system, which continues to increase the spending on research and innovation. At the same time, enterprises in Bulgaria face significant challenges:

- Low degree of innovation activity as a result of insufficient cooperation between businesses, science and higher education institutions. Bulgaria

is last but one in the EU in terms of innovation performance and share of SMEs that have marketed new products or services.

- Difficult access to funding sources and low investment activity - just over 16% of Bulgarian SMEs have access to public financial aid, including guarantees.

Fig. 2. R&D Spending in Bulgaria, 2000 – 2018



Source: NSI, 2019

The main challenges related to entrepreneurship are that it is not in the focus of public institutions and that the topic is not on the political agenda. Significant efforts are still to be made with regard to entrepreneurship training, both at the primary and secondary education stages, as well as within higher education and the initiatives for vocational and dual training.

As in previous years, the *Innovation.bg* report highlights the leading role of business in carrying out research and innovation. In 2018, enterprises spent a total of BGN 594.8 million (11% annual growth) on R&D, equivalent to 0.54% of GDP. Compared to other institutional sectors, only the increase in business sector R&D spending is able to outpace GDP growth (current prices), thus increasing its share. Over 88% of R&D funding from foreign sources is chan-

neled to businesses.

The business sector also plays a leading role in the growth of R&D staff. Since 2015, enterprises have been providing more jobs for researchers than the public sector and higher education. In 2018, the share of business in the institutional structure by this indicator reached nearly 46%.

The development of the strategic framework for the next program period 2021–2027 is an opportune moment for public institutions to make clear commitments to science and innovation policies and take bold decisions. For example, R&D management and coordination and policy-making on smart specialization should be brought into a single public agency following international best practices such as Innovation Norway.

### The Fifteenth National Innovation Forum

For a fifteenth year in a row, the **National Innovation Forum** gathered more than 200 representatives of the policy, research and business communities to share views on Bulgaria's position on the innovation and economic growth. The event took place on 5 December 2019.

Dr. Ognian Shentov, Chairman of the Applied Research and Communications Fund,

stressed the key importance of collaboration between institutions, business and scientific communities in the development of innovation, as well as the effectiveness of innovation public financing. He also pointed out the significant difference between EU and Bulgaria in terms of investment in innovation – in this respect the country has to catch up with current innovation leaders.



*Opening speech by Dr. Ognian Shentov, Chairman of ARC Fund  
15<sup>th</sup> National Innovation Forum*

The President of the Republic of Bulgaria Mr. Rumen Radev described innovation as "a key tool for sustainable development", "a reflection of the national ambitions for the future and the effectiveness of the interaction between state institutions, business, science and education". He highlighted the

need for a better symbiosis between business, government and science in the field of innovation and recalled his position that the balanced distribution of educational and scientific infrastructure is the best way to achieve the parameters of sustainable development.



*President of the Republic of Bulgaria  
Mr. Rumen Radev at the 15<sup>th</sup> National Innovation Forum*



*Participants in the 15th National Innovation Forum, Sofia, 5 December 2019*



*The 2019 Innovative Enterprise of the Year National Contest*

Since 2004, **Innovative Enterprise of the Year** awards have been given to Bulgarian companies successfully integrating innovations or scientific achievements in their practice, thus streamlining their activities and im-

proving their long-term performance. Companies are assessed in a number of innovation impact areas by an expert group and an external jury.



*President of the Republic of Bulgaria Mr. Rumen Radev (middle) with the award winners of the 2019 Innovative Enterprise of the Year contest*

Twenty-one out of 100+ companies from various sectors of the economy were short-listed and a 17-member jury of public authorities, funding organizations, the business and academia representatives, selected the winners in the eight areas of innovation impact. The President of the Republic Mr. Ru-

men Radev awarded **winners in the National Contest "Innovative Enterprise of the Year 2019"**.

Ultraflex Corporation Ltd. was granted the award for Market Leadership for the development of an innovative induction heating



*President of the Republic of Bulgaria Mr. Rumen Radev (left) and Mr. Spas Spasov, Ultraflex Corporation Ltd.*

system applicable in all sectors related to the heat treatment of materials – industrial, jewellery, and laboratory, dental and medical electronics. The system is of separate modules that allow parallel heating of different materials according to different parameters. It also allows for additional modules when more power is needed. The system has been sold in the USA, Canada, Turkey and India.

International Power Supply JSC received the “Green innovation” award for the crea-

tion of an autonomous hybrid power supply system for management of electricity produced from renewable sources. The system is the first in the world to apply a modular principle to power supply. In case there is a faulty module, its work is taken over by other modules without affecting the system operation. Excess energy is stored in rechargeable batteries for further use. The system is operating in more than 60 countries on 7 continents, in 1500 installations, incl. in areas without access or reliable electricity grid.



*President of the Republic of Bulgaria Mr. Rumen Radev (left) and Mr. Alexander Rangelov, International Power Supply JSC*

### *Excellence in Innovation Award Ceremony*



The innovative enterprises, finalists in the National Contest Innovative Enterprise of the Year in 2016, 2017 and 2018, were awarded ARC Fund’s newly introduced Excellence in Innovation label at a ceremony in the President’s office on 8 February 2019. Contest finalists were honoured for their advanced cutting-edge innovations.

The “Excellence in Innovation” label supports the contest finalists and their visibility to local and international partners, as well as catalyzes market entry and recognition of quality and high-standard innovations developed by Bulgarian companies.



*President of the Republic of Bulgaria Mr. Rumen Radev (in the middle) with the finalists in the Innovative Enterprise of the Year National Contest 2016, 2017, 2018 at the Excellence in Innovation award ceremony and guests*