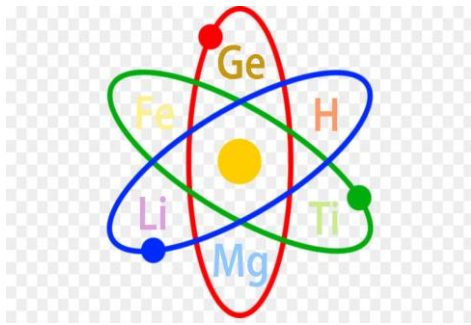


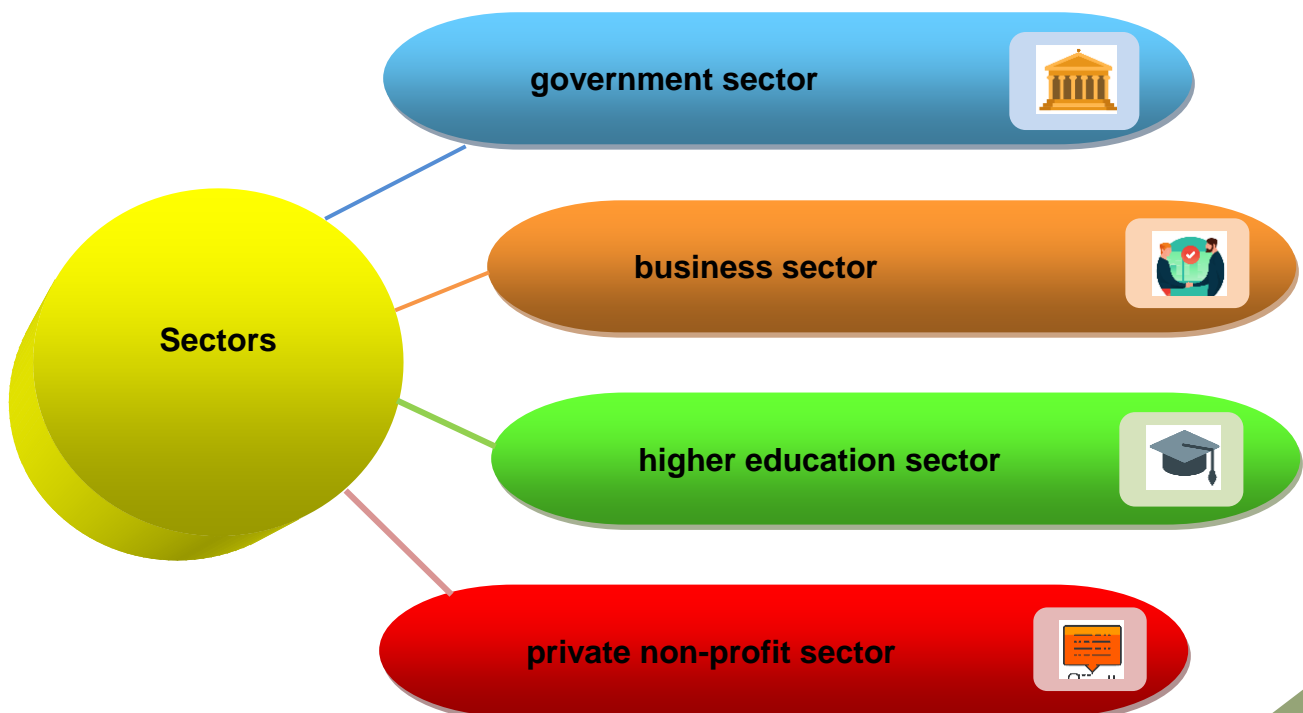


Science and innovation in the Republic of Uzbekistan in 2019



It is known that in recent years in science, as in other areas, special attention is paid to increasing the efficiency of innovative research activities, the widespread introduction of scientific results created in this direction into production. Resolution of the President of the Republic of Uzbekistan "On additional measures to improve the mechanisms for introducing innovations in the industry and the economy" PP-3698 dated May 7, 2018 serves as software for work in this area of activity.

It can be clearly seen below that R&D is divided into four sectors.





Number of students, accepted and graduates of basic doctoral institutions in the Republic of Uzbekistan (2019, people)

Students



2247

Enrolled



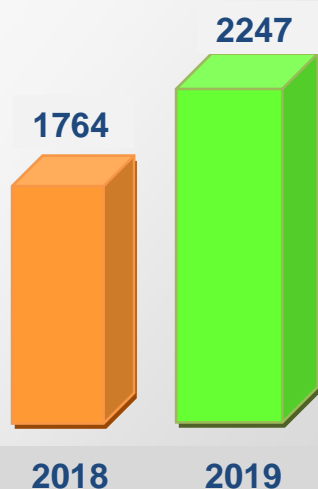
1013

Graduates



335

In 2019, the number of students at basic doctoral institutions was fixed at 2247 people, compared with last year, it increased by 483 people (27.4%).



In 2019, the total number of organizations with basic doctoral studies was 114, including 59 scientific organizations and 55 higher educational institutions. The number of students enrolled in them totaled 2247 people, the number of accepted - 1013, graduates - 335 people.





**The number of organizations in the
Republic of Uzbekistan with doctoral studies
(2019, units)**

Total number of organizations – 74

Scientific organizations – 38

**Higher educational
institutions – 36**

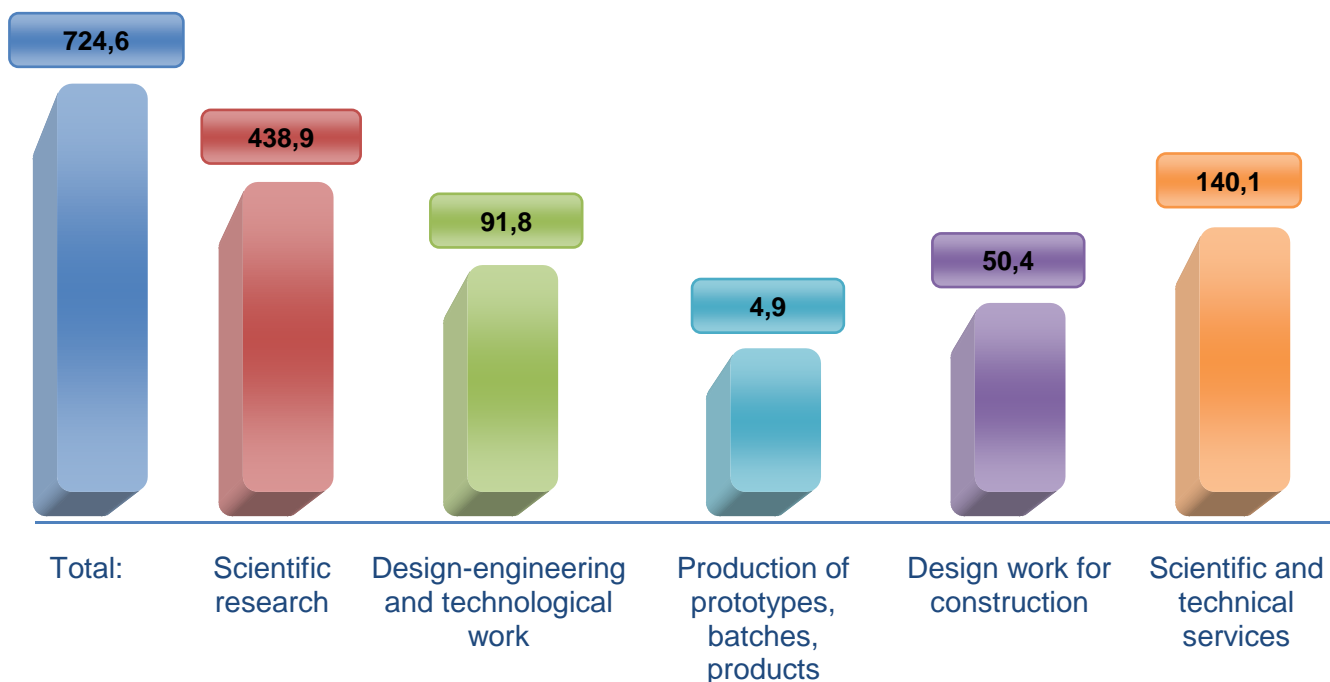


**The volume of research and development
in the Republic of Uzbekistan carried out
by organizations by type of work
(2019, billion soums)**

According to preliminary data, the total volume of developments in 2019 amounted to 853.4 billion soums, of which in the public sector - 314.7, the business sector - 429.2, the higher education sector - 106.7, the private non-profit sector - 2.8 billion soums.

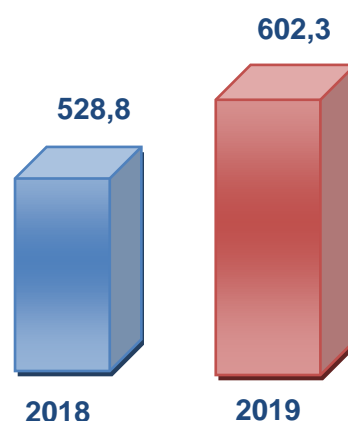


The volume of research and development projects in the Republic of Uzbekistan carried out by organizations by type of work on their own (2019, billion soums)



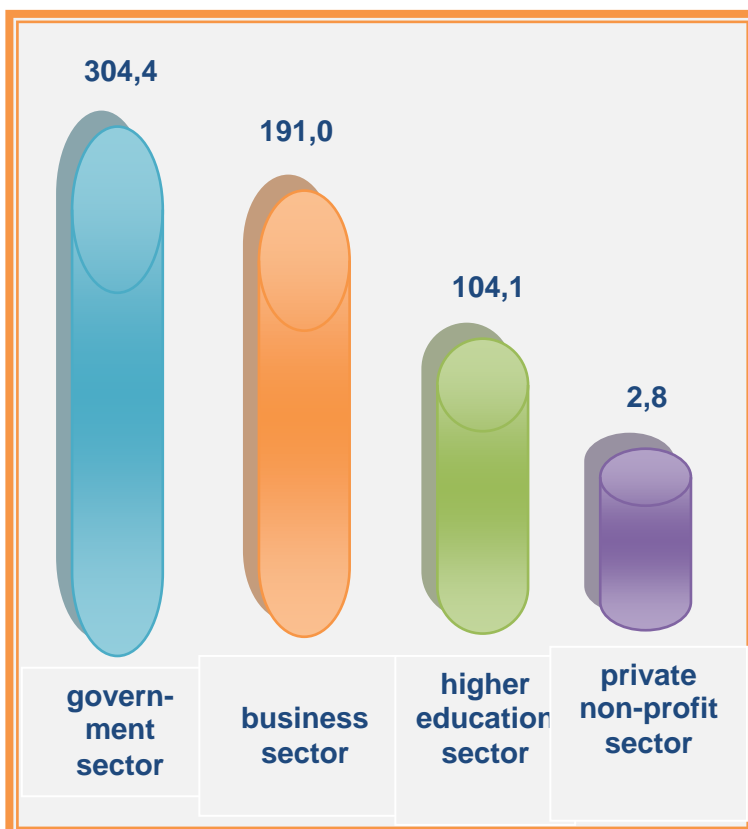
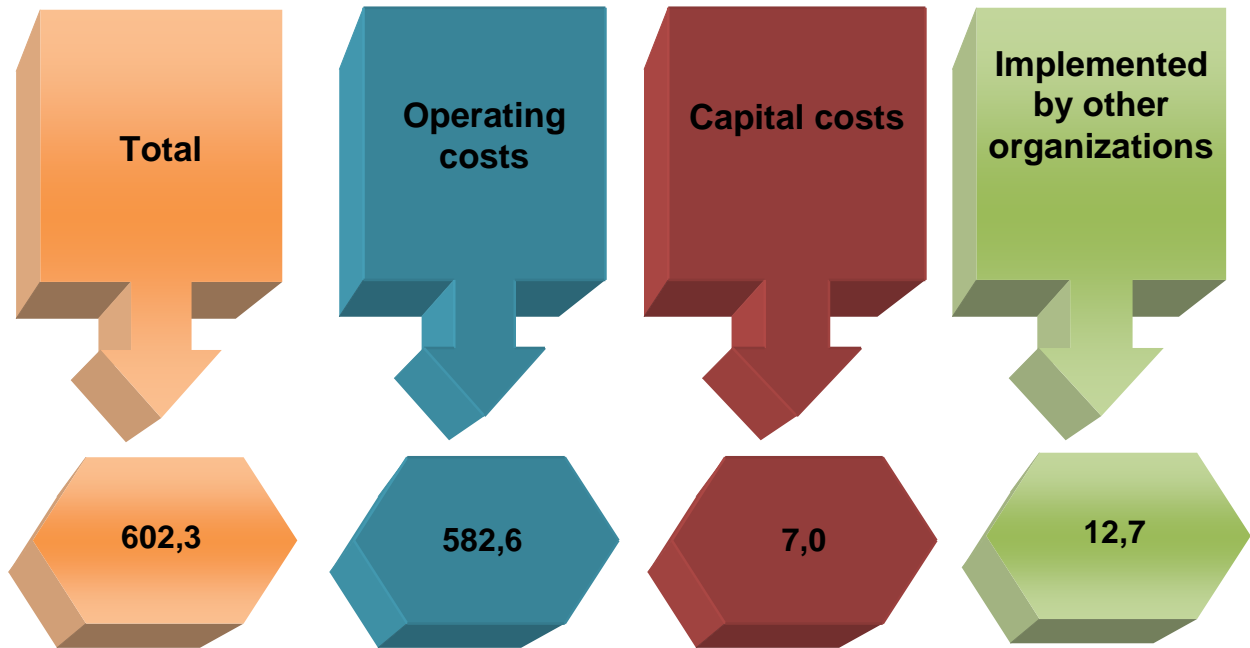
Expenditures on research and development in the field of science in the Republic of Uzbekistan (2019, billion soums)

Total expenditures by branches of science, compared to last year, increased by 13.9%, amounting to 602.3 billion soums, of which in natural and technical sciences - 387.0, medical and agricultural sciences - 106.6, social and humanitarian sciences - 108.7 billion soums.





Research and development expenditures in the Republic of Uzbekistan (2019, billion soums)



Total expenditures on research and development activities amounted to 602.3 billion soums: in the public sector-304.4, entrepreneurship - 191.0, higher education sector-104.1, private non-profit sector - 2.8 billion sum.



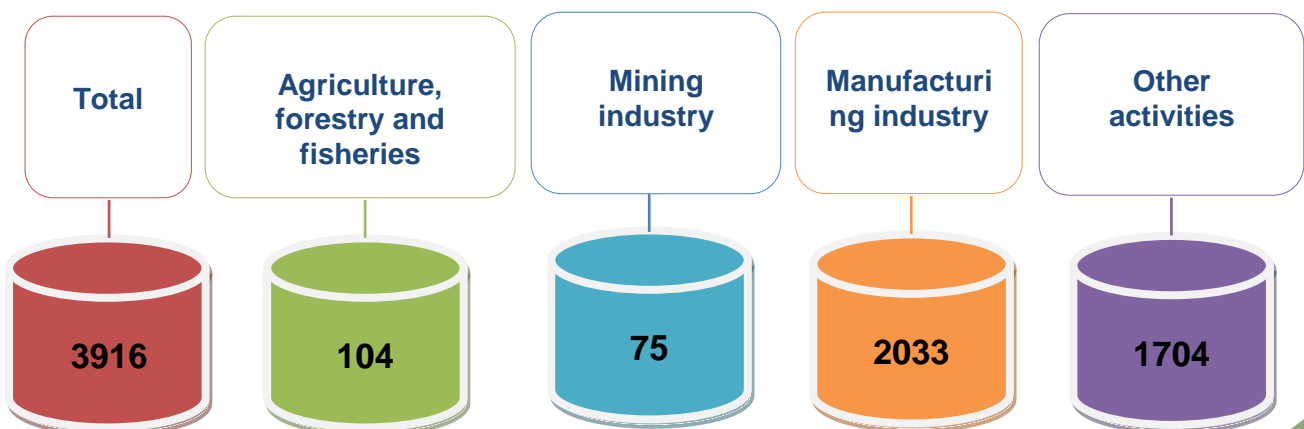
The number of enterprises and organizations producing innovative products, works, services by regions of the Republic of Uzbekistan (2019, units)

| | |
|----------------------------|------|
| Republic of Uzbekitan | 3916 |
| Republic of Karakalpakstan | 59 |
| <i>regions:</i> | |
| Andijan | 128 |
| Bukhara | 172 |
| Jizzakh | 116 |
| Kashkdarya | 137 |
| Navoi | 574 |
| Namangan | 184 |
| Samarkand | 215 |
| Surkhandarya | 212 |
| Syrdarya | 315 |
| Tashkent | 388 |
| Fergana | 431 |
| Khorezm | 80 |
| Tashkent city | 905 |

An enterprise is considered to be innovative if it has introduced a certain innovation during the specified period of statistical accounting. Based on the data presented below, it becomes obvious that the number of organizations engaged in innovative activities amounted to 3916, the highest figure was recorded in the city of Tashkent, as well as in Navoi and Fergana regions.



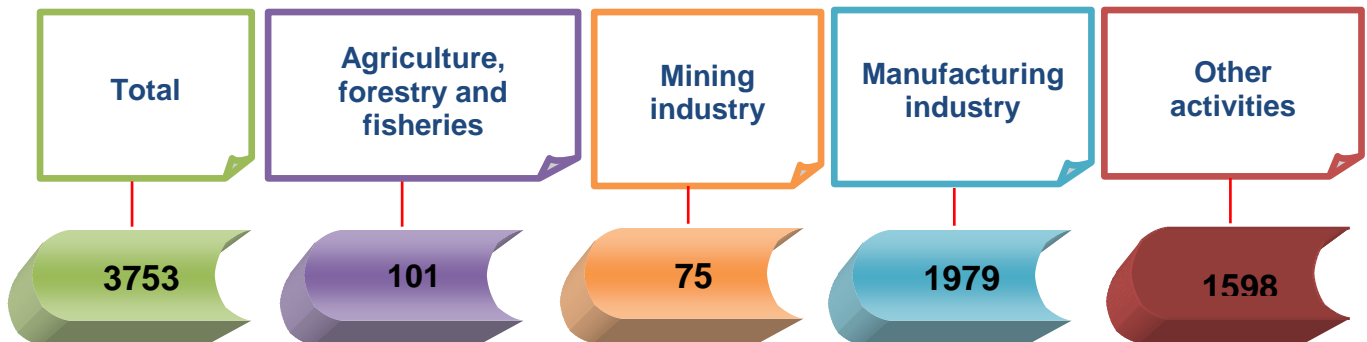
By types of economic activity, units





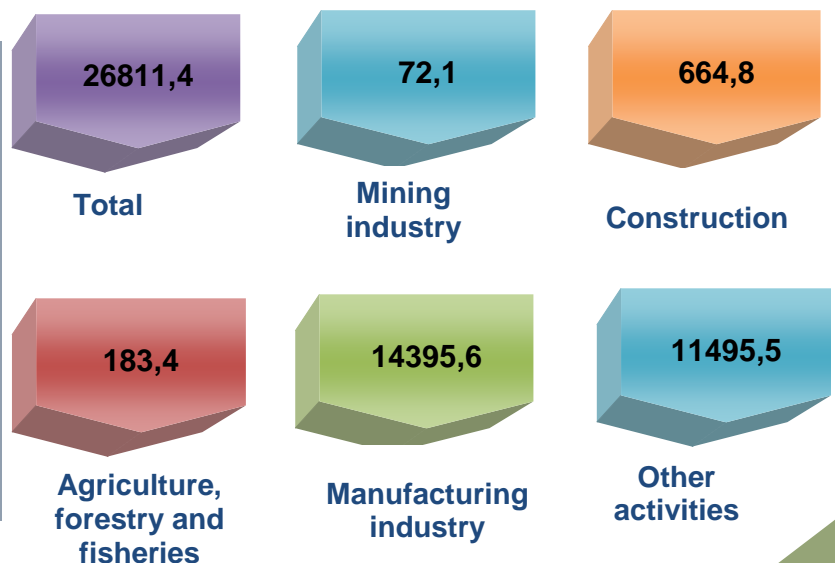
The number of small enterprises and microfirms producing innovative products, works, services in the Republic of Uzbekistan (2019, units)

In 2019, the number of small enterprises and microfirms that implemented innovative projects amounted to 3,753 units, by type of economic activity, the largest indicator was recorded in the manufacturing industry - 1,979 units.



The volume of innovative products, works, services by type of economic activity in the Republic of Uzbekistan (2019, billion soums)

Enterprises and organizations that submitted statistical reports are grouped by type of economic activity. The volume of innovative work done by them amounted to 53.7% of the total, mainly in the manufacturing industry.





The volume of sold innovative products, works, services by regions of the Republic of Uzbekistan (2019,%)

Based on the meaning of innovations, they include a certain number of them that are new to the organization, the internal market or the whole world.

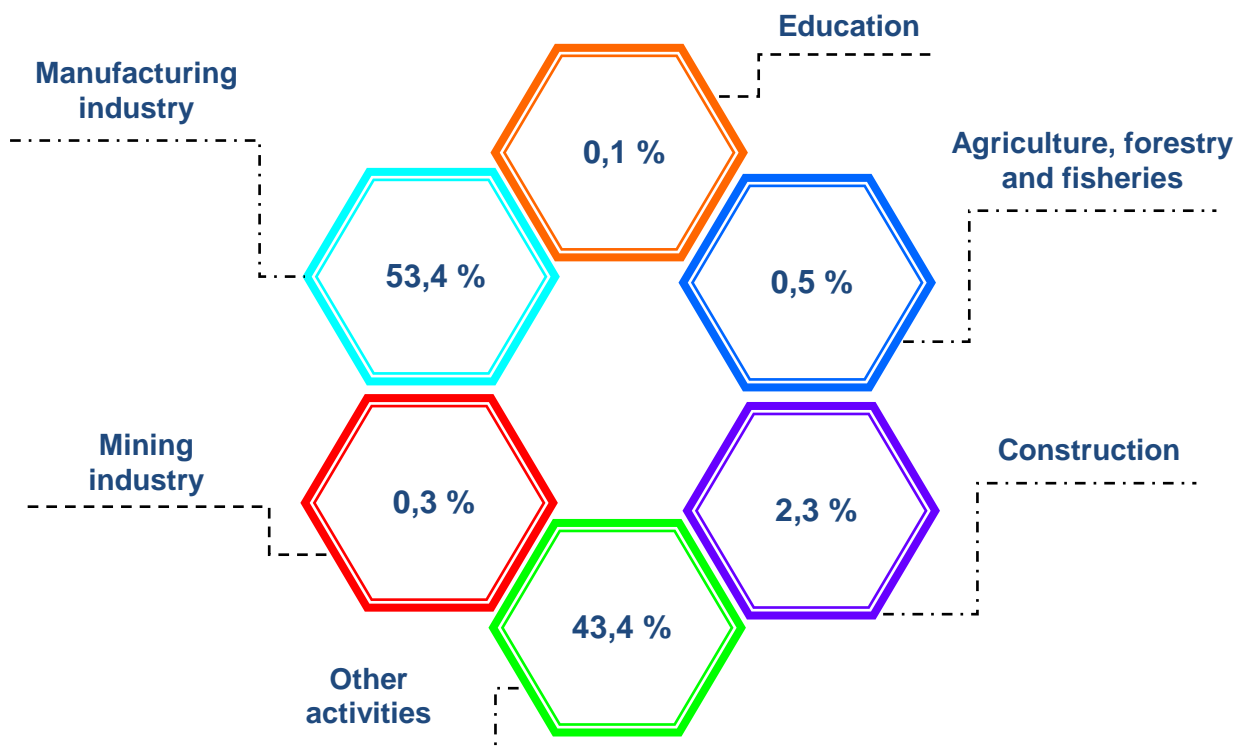
| | |
|----------------------------|-------|
| Republic of Uzbekistan | 100,0 |
| Republic of Karakalpakstan | 0,8 |
| <i>regions:</i> | |
| Andijan | 15,0 |
| Bukhara | 0,9 |
| Jizzakh | 1,6 |
| Kashkadarya | 10,0 |
| Navoi | 2,0 |
| Namangan | 2,9 |
| Samarkand | 2,8 |
| Surkhandarya | 0,4 |
| Syrdarya | 1,7 |
| Tashkent | 10,4 |
| Fergana | 2,2 |
| Khorezm | 1,7 |
| Tashkent city | 47,6 |

The volume of implemented innovations in 2019 amounted to 26293.8 billion soums, higher indicators were achieved in the city of Tashkent - 47.6% and Andijan region - 15.0%. The minimum requirement to be considered innovation is that the product or process is new or significantly improved.





The volume of sold innovative products, works, services by type of economic activity in the Republic of Uzbekistan for 2019



The volume of sold innovative products by type of economic activity in 2019 amounted to 26293.8 billion soums, the highest indicator was recorded in the manufacturing industry (53.4%). Innovation encompasses scientific, technological, organizational, financial and commercial measures that lead to improved products or processes.

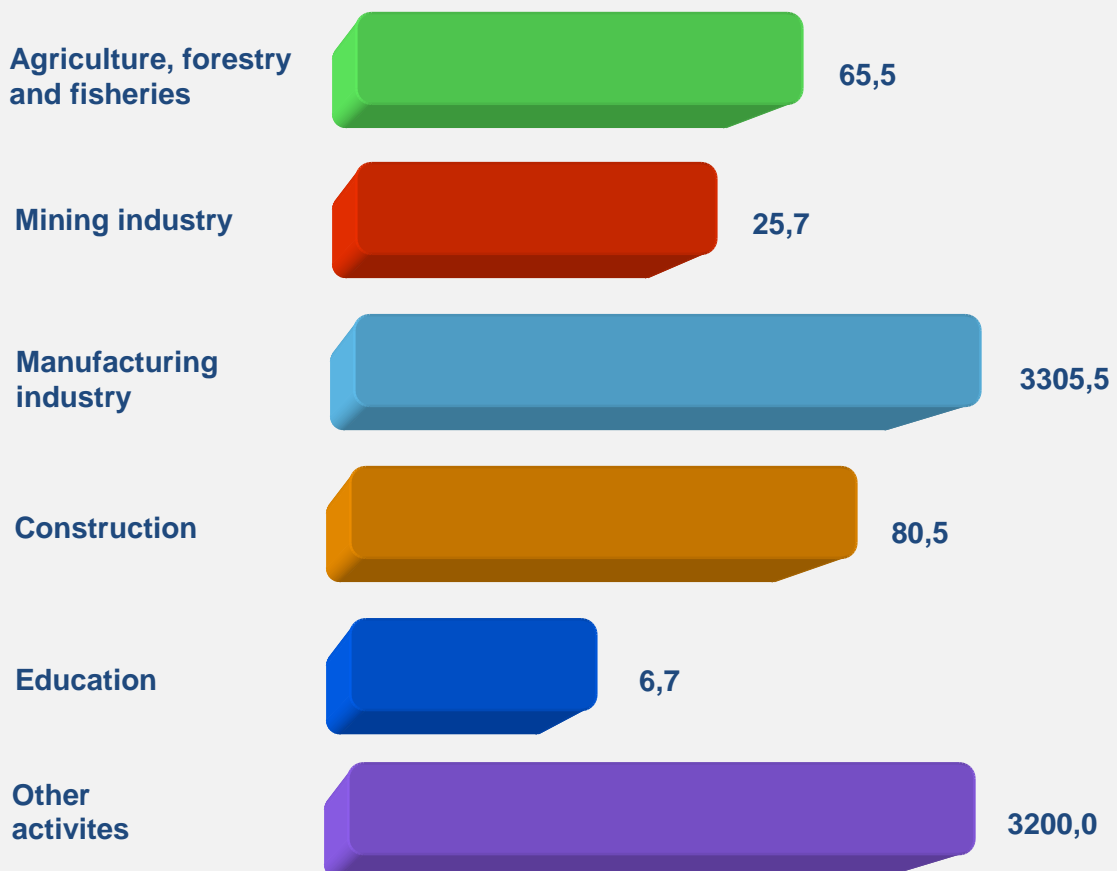




Expenditures on technological, marketing and organizational innovations by funding sources in the Republic of Uzbekistan (2019, billion soums)

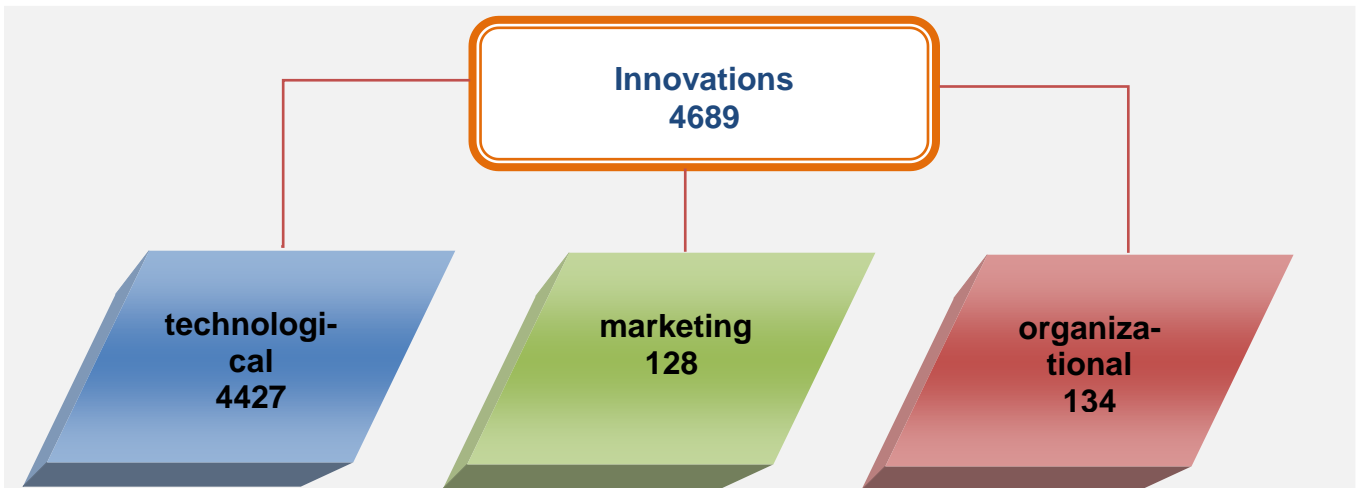
In general, expenses on technological, marketing and organizational innovations amounted to 6603.5 billion soums, of which expenses at the expense of organizations' own funds - 3342.9 billion soums, due to foreign investments - 1,083.7, loans from commercial banks - 1,060.1, budgetary funds - 727.9, targeted off-budget funds - 307.2, other sources of financing - 81.8 billion soums.

By type of economic activity, billion soums

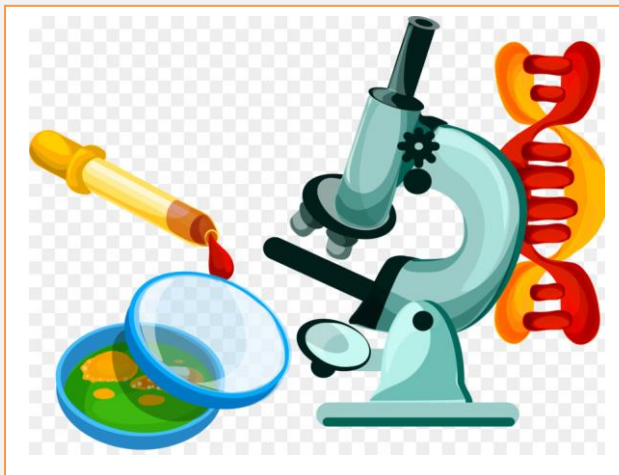




The number of implemented innovations in the Republic of Uzbekistan (2019, units)



Innovation is divided into three types: technological, marketing, and organizational. In 2019, the total number of implemented innovations was 4689, of which 4427 were technological, 128 were marketing and 134 were organizational. Innovation activity is activity that is synchronized with the introduction of a new or improved product to the market related to the transformation of ideas.



Technological innovation is classified into two types

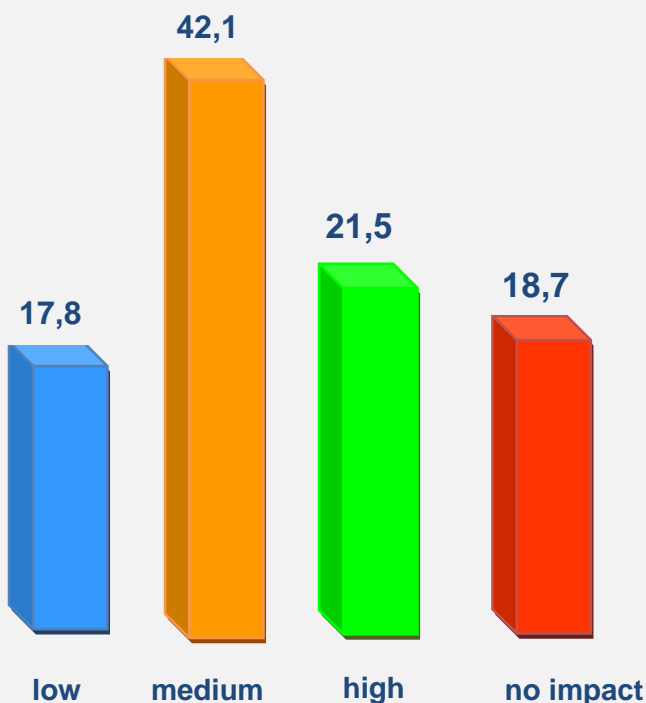
| | |
|-----------|----------|
| products | 3543 ед. |
| processes | 884 ед. |



The level of influence of innovations introduced by enterprises and organizations in the Republic of Uzbekistan in recent years (2019,%)

Product innovation

The results of a sample survey conducted in the country showed that the level of innovative impact of business entities is estimated lower by 17.8%, on average by 42.1%, higher by 21.5%, and in 18.7% of cases there was no impact. The basis of selective observation is made up of organizations registered in the Unified State Register of Enterprises and Organizations operating on the territory of our republic. The sample size is 10% of the corresponding layer for each area.



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