

YOUTH_SCIENCE

EMPOWER YOUR POTENTIAL



Potential of young scientists in the context of digitalization

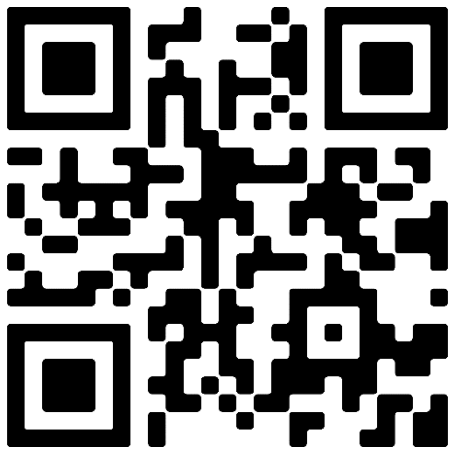
Bayreuth, 23-24 June 2022

Tetiana Shkoda
Iuliia Gernego
Inna Semenets-Orlova
Maria Tepliuk

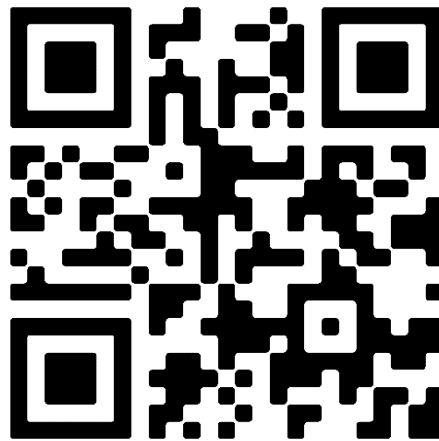
Our scientific background

- Tetiana Shkoda defended her Doctor of Science thesis “Strategic Management of Human Capital of Air Transport Enterprises” (2018). Project manager of the best young scientists’ scientific project in Ukraine (2020), team member of ITE-VET (2016-2018) and PAGOSTE (2020-2023) Erasmus+ projects.

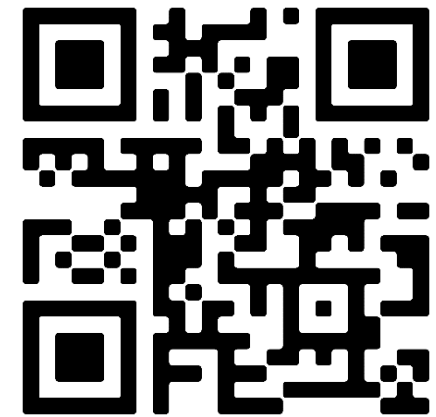
Scientific profiles



Publons



Scopus



Google Academy

Our scientific background

- Inna Semenets-Orlova defended her Doctor of Science thesis “Theoretical basis of public management of educational changes of Ukraine” (2018). The winner of the President of Ukraine Award for Young Scientists in 2021.

Scientific profiles



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Our scientific background



- **Iuliia Gernego** defended her Doctor of Science thesis “Financial mechanism of sustainable human development support” (2020). Co-author of tutorial on Venture financing (2021).

Scientific profiles



Academia.edu



Publons



Scopus



Google Academy

Our scientific background



- **Mariia Tepliuk** defended her Candidate's dissertation «Efficiency of providing resources to the enterprise (based on the materials of the brewing industry of Ukraine)» (2017)

Scientific profiles



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Project “Realization of potential of young scientists in integration of science, education, business”



Project “Realization of potential of young scientists in integration of science, education, business” (2020 – 2022), state registration № 0120U102126

- The **best young scientists’ scientific project’ 2020** in the nomination “Scientific project” in the competition of the Young Scientists Council of Ukraine
- It was conducted a mass sociological survey on the current state of realization of the potential of young scientists (in science, education, business and socio-political sphere) using google-form in 2020. The profile of the modern young scientist in Ukraine is prepared based on the results of this survey.

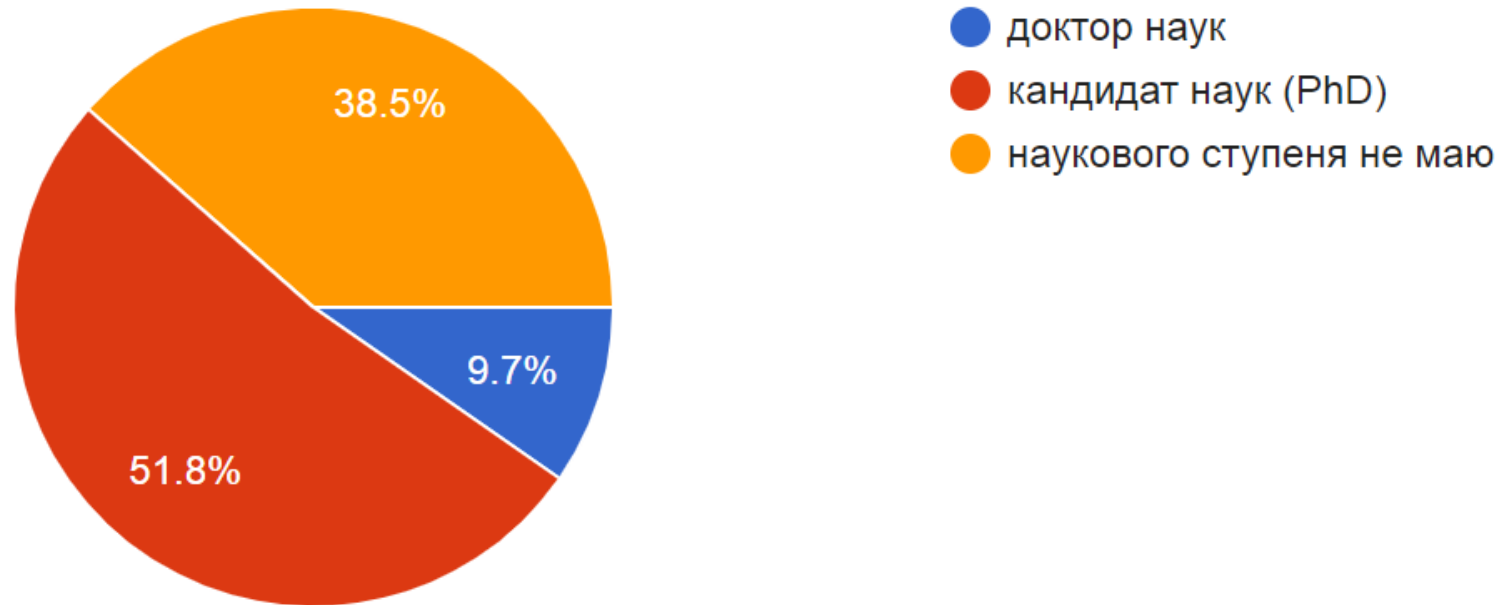
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Scientific degree of respondents

Ваш науковий ступінь

579 responses





The main problematic issues of realizing the potential of young scientists in Ukraine:



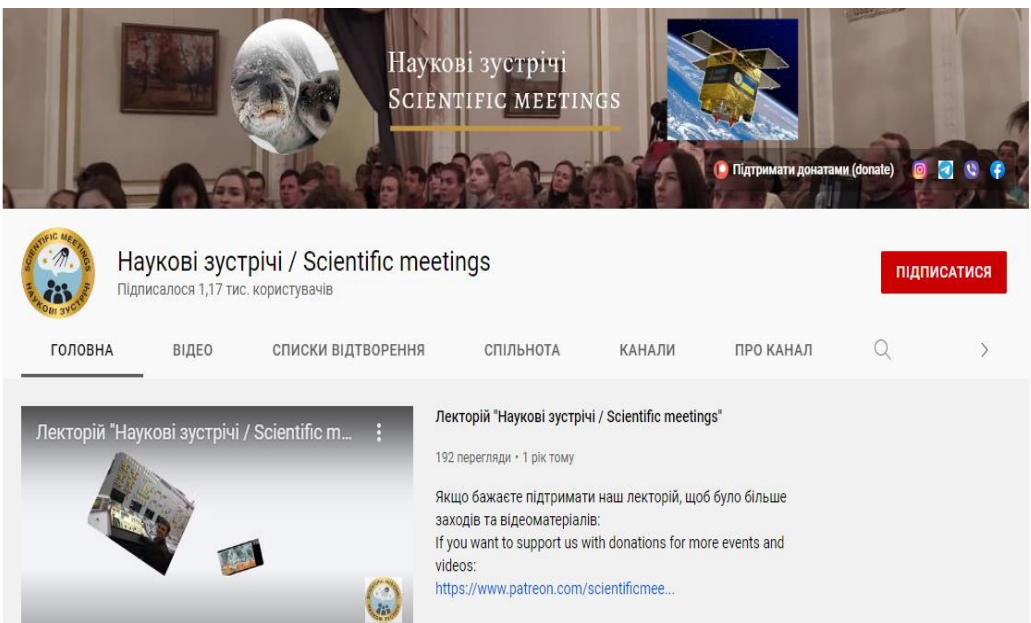
- 61.5% of young scientists surveyed have a degree and 24% have a scientific title
- **THE MOST IMPORTANT FACTORS OF INFLUENCE ARE SCIENTIFIC INTEREST AND PROSPECTS TO MAKE A SCIENTIFIC CAREER** - for 62.2% of respondents the choice of field of knowledge, specialty and research topic was influenced by these factors and only for 13.5% - to gain a good profit
- **Absence of scientific publications in SCOPUS, Web of Science**
- **BAD FINANCIAL SUPPORT** - 8.7% of young scientists have an income of over 19 thousand UAH; 14.8% - up to UAH 5,000; 43.7% - from 5 to 9 thousand UAH
- Average level of knowledge of one foreign language,
- **FOR THE LAST 5 YEARS NO WORKING TRIPS ABROAD**
- **LOW STATUS OF YOUNG SCIENTIST - 67.2% OF RESPONDENTS UNSATISFACTORY ASSESSED SOCIAL STATUS OF YOUNG SCIENTIST IN UKRAINE**
- **BUREAUCRATIZATION OF THE GRANT APPLICATION PROCESS** - 40.8% of respondents primarily expect a decrease in the level of bureaucratization of the process of applying for state scholarships and grants, increasing the level of openness of competitions for their receipt



Project “Realization of potential of young scientists in integration of science, education, business”



- The main components of academic entrepreneurship in Ukraine were identified on the basis of an assessment of its condition. Recommendations for raising the level of academic entrepreneurship based on the analysis are developed.
- The activity of state venture funds in foreign countries was analyzed and potential possibilities of their functioning in Ukraine were determined. Regulations on the functioning of the state venture fund are developed, the investment strategy of which will be aimed at financing innovative projects and developments of young scientists.
- The main hard and soft skills of young scientists were identified and the training program of the young scientists potential development was proposed.
- The concept of the digital resource for young scientists was developed and realized in the form of the project Scientific Meetings



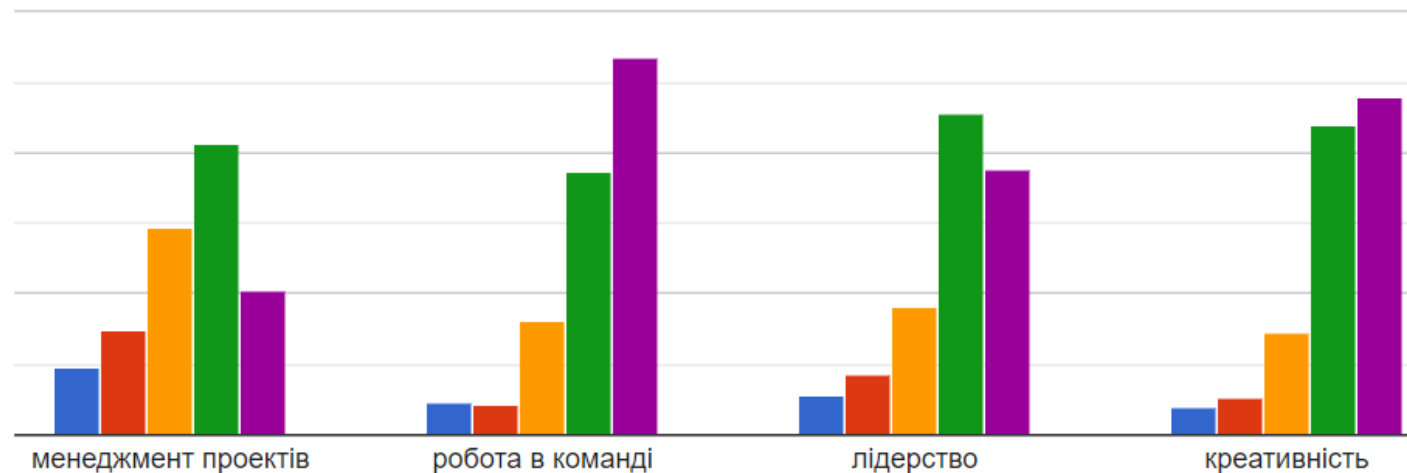
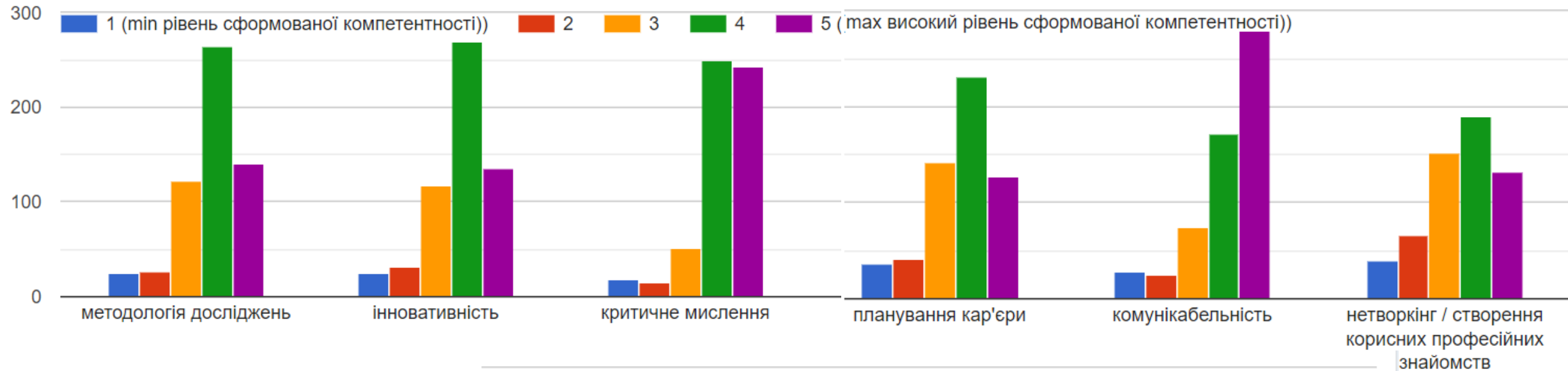
5/10. Досягнення Scientific meetings: телепрограма, віртуальні екскурсії, науково-популярні фільми



Охват
543 589
+1 последние 7 дней

★
Ответы
10 758
+0 последние 7 дней

Evaluation of the young scientists competence (from 1 (min) to 5 (max))



Soft Skills of young scientists

More than 30% of young scientists defined **as most developed** such soft skills:

- **creativity,**
- **innovation,**
- **leadership.**

Soft Skills of young scientists

The most pressing issues that require a high level of soft skills of young scientists are:

- doing an effective cooperation with business (90% of young scientists have confirmed);
- effective grant and project activities (only every 6th young scientist applied for an individual research grant).

45% of young scientists emphasize that there is a need to develop their soft skills in professional activity.

Project Activities

27.1% of young scientists do not promote science at all and this does not seem interesting to them in any way. The most effective way to disseminate information about their own research 36.6% of young scientists defined project work.

This demonstrates the need to develop competitive support for young scientists in the field of development of their soft skills in scientific and educational-scientific institutions, related to project activities.

The opportunity to work in projects is the most appreciated by those young scientists who have assessed **the scientific level of their personal scientific results at the level of the world's leading scientific institutions.**

Women / men

According to the study, **women are more likely to appreciate the high level of their soft skills** than men.

71.8% of young female scientists rated their networking skills on 5th out of 5 points (only 28.2% of young male scientists rated the same).

71.2% of women rated their teamwork skills on 5th out of 5 points (only 28.8% of young male scientists rated the same).

The needs of young scientists for developing their personal potential:

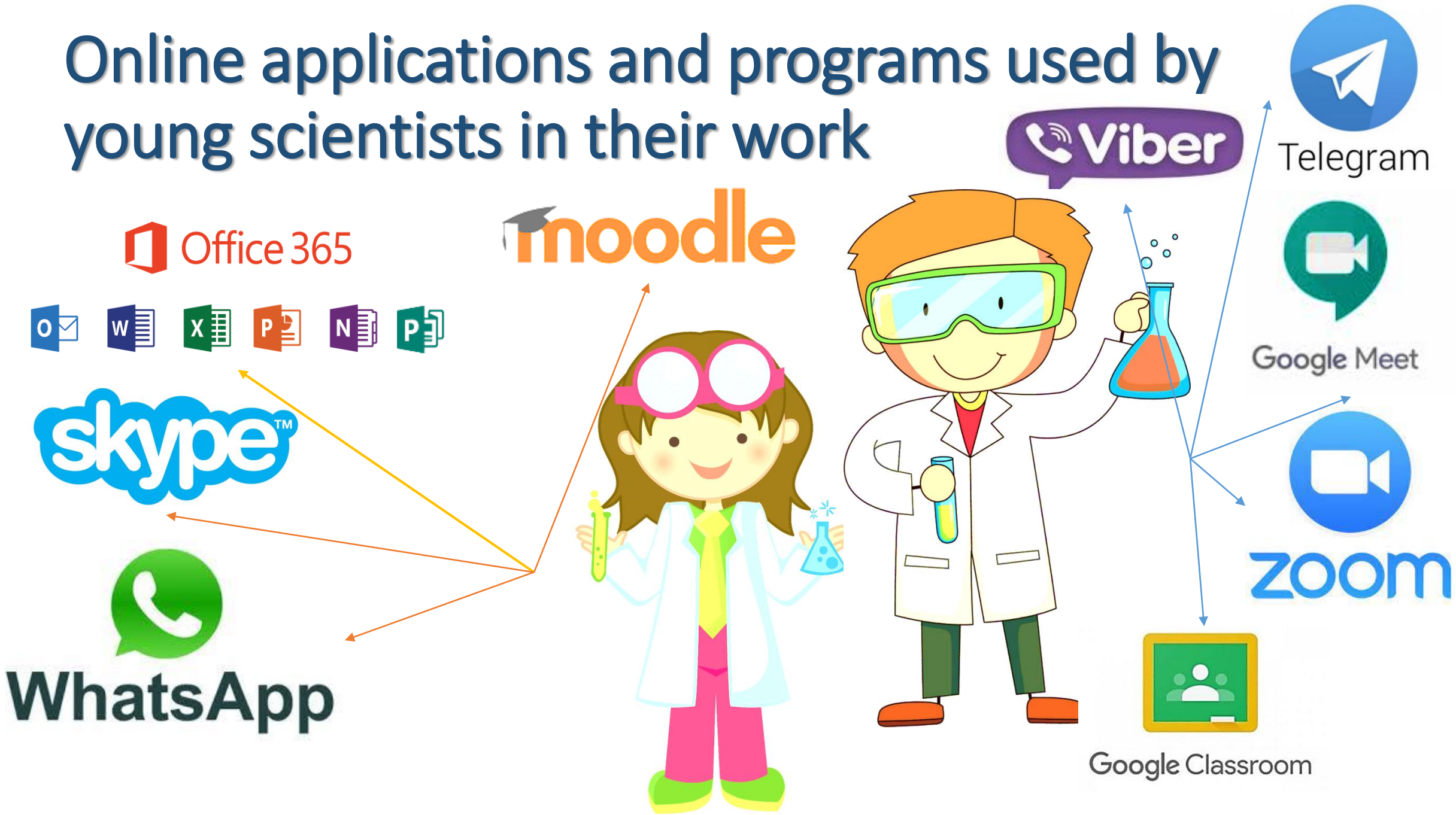
- 1) every second young scientist does not have enough time;
- 2) 9 out of 10 young scientists need additional financial support;
- 3) more than 50% of young scientists need higher level of domestic comfort;
- 4) 40% of young scientists need more professional support from management and colleagues;
- 5) 60% of young scientists need more useful professional contacts.

Among their strengths, young scientists often mentioned:

- 1) relatively high level of education;
- 2) motivation to continue learning and openness to the new;
- 3) love for the profession;
- 4) the ability to generate many new and useful scientific ideas.

In our opinion, this is an excellent basic for the development of soft skills.

Online applications and programs used by young scientists in their work



Online applications and programs used by young scientists in their work



31,7%



28,5%



zoom

18,8%



10,8%



Telegram

4,5%



Google Classroom

1,7%



Google Meet

1,6%



WhatsApp

1,4%



1,1%



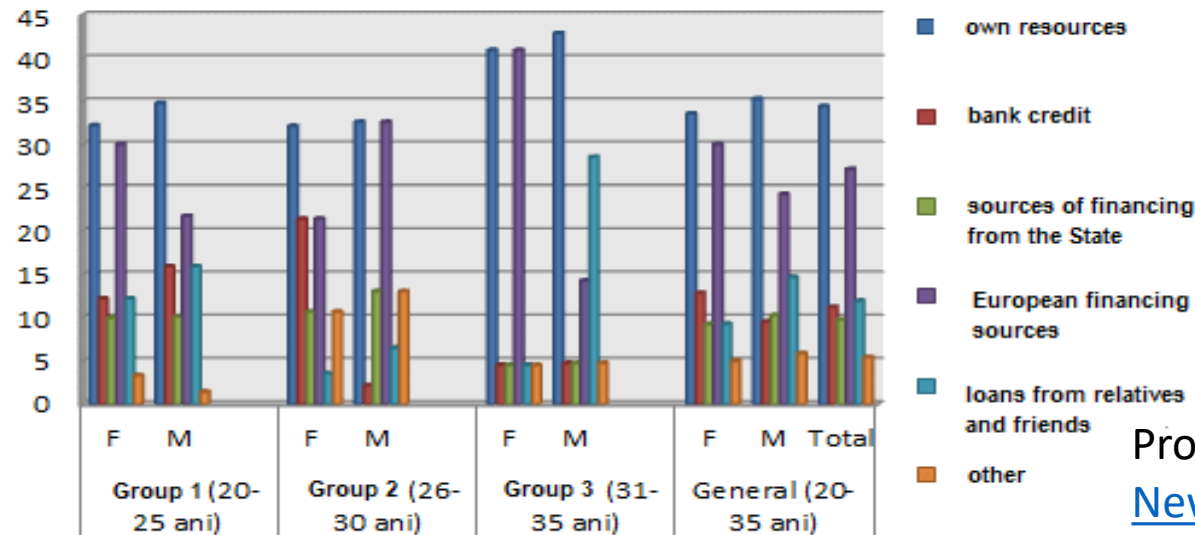
You are young scientist? Where should you look for resources in the context of digitalization?



- In accordance with [Scientific American](#) reports, university faculty members spent **40%** of their research time for writing, and submitting research grant applications.
- However, in accordance with the [National Institutes of Health](#), about **20%** of the applications for scientific research funding were successfully approved



Sources of financing preferred



Project:
[New Business Models for the
Circular Economy - BuMEc](#)

You are young scientist? Where should you look for resources in the context of digitalization?

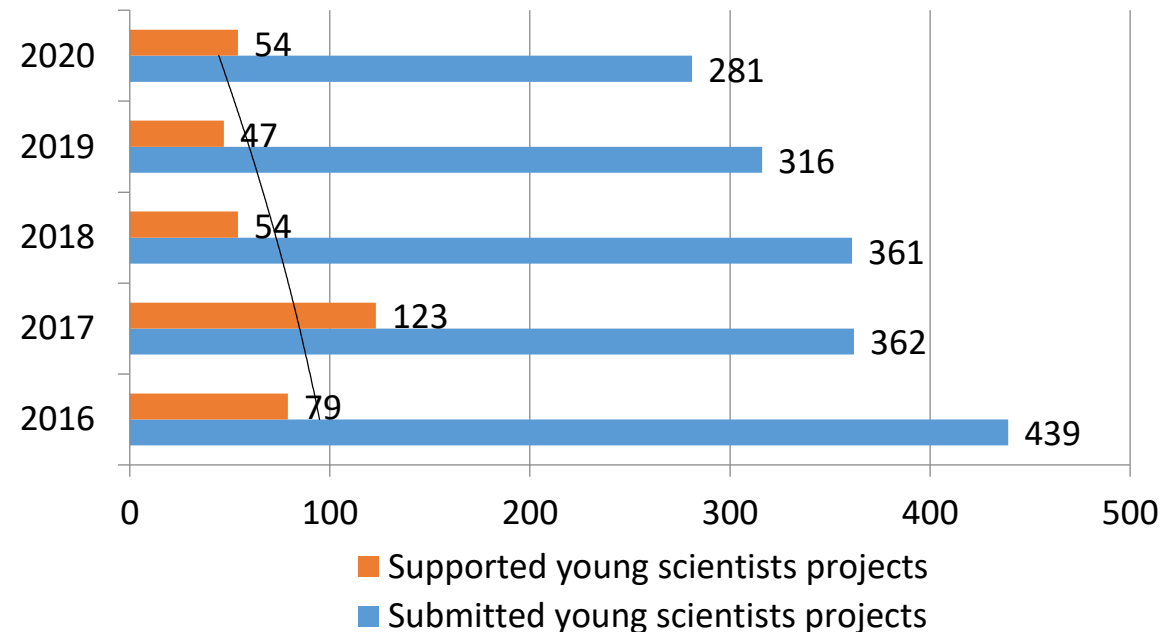
✓ Public/State Funding

specialized government agencies - *research councils*

✓ Private funding

philanthropists, **crowd-funding**, private companies, **non-profit foundations**, and **professional organizations**

- 357 projects of young scientists within 11 professional scientific directions have been supported by state during the last 5 years in Ukraine
- The budget of young scientists ' projects state financing in Ukraine was about 100 mln. UAH as of 2020 and more than 100 mln UAH as of 2021



Where should you look for resources in the context of digitalization?



What is Horizon Europe?

Horizon Europe is the EU's key funding programme for research and innovation with a [budget of €95.5 billion](#) .

It tackles climate change, helps to achieve the UN's Sustainable Development Goals and boosts the EU's competitiveness and growth.



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Where should you look for resources in the context of digitalization?

- [Grants.gov](#) is one of the largest sources for research funding in the United States. Grants.gov is an [E-Government initiative](#) operating under the governance of the Office of Management and Budget. Today, the Grants.gov system houses information on over 1,000 grant programs and vets grant applications for federal grant-making agencies.
- Founded in 2002, the [Global Fund](#) is a partnership between governments, civil society, the private sector and people affected by the diseases. The Global Fund raises and invests nearly \$4 billion a year to support programs run by local experts in countries and communities most in need.
- [Wellcome Trust](#) is a global charitable foundation that supports scientists and researchers, take on big problems, fuel imaginations and spark debate. The funding supports over 14,000 people in more than 70 countries.
- [Nesta](#) is a global innovation foundation. The kinds of big challenges Nesta tackle include the pressures of an ageing population, stretched public services, and a fast changing jobs market.
- The Global Health Division of [Bill and Melinda Gates Foundation](#) aims to harness advances in science and technology to save lives in developing countries. The United States Division works to improve U.S. high school and postsecondary education and support vulnerable children and families in Washington State.

Where should you look for resources in the context of digitalization?

- **KICKSTARTER** is an American public-benefit company based in Brooklyn, N.Y., that maintains a global crowdfunding platform that focuses on creativity.
- **experiment.com** is an online platform for discovering, funding, and sharing scientific research. According to Experiment, they are a vehicle for enabling new scientific discoveries. "If it helps unlock new knowledge, then we can fund it. We have the technology to make that happen."
- **wemakeit** is Switzerland-based international crowdfunding platform for creative projects. *wemakeit* allows you to introduce your project to a large audience online and to finance it with the help of a big crowd of backers.
- **CROWD SCIENCE** provides a place where communities can form around research areas and back specific projects that they believe are worthy of support. They charge 5% of the total raised for projects.
- **The #SciFundCHALLENGE** mission is "Through our community-based programs, we empower scientists to team up to connect their science to the wider world"

Where should you look for resources in the context of digitalization?

Our idea to be implemented in Ukraine

- State Venture Fund, which investment strategy will be aimed at financing innovative projects and developments of young scientists

Foreign experience:

- ✓ **USA - SBIC**
- ✓ **Finland - SITRA**
- ✓ **Israel - YOZMA**
- ✓ **Japan - VAC**

Thank you for attention



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