



Funded by  
the European Union  
NextGenerationEU



National Recovery and Resilience Plan



OF THE REPUBLIC OF BULGARIA

# **Sofia University - Marking Momentum for Innovation and Technological Transfer (SUMMIT) One year later. An Overview Prof. Vasil Marinov**

## What is SUMMIT?

- SUMMIT is by its nature a complex program comprising a large number of relatively independent but strategically linked projects and complementary activities
- This is the STRATEGIC RESEARCH AND INNOVATION PROGRAMME FOR DEVELOPMENT of SOFIA UNIVERSITY
- Financed by the European Union - NextGenerationEU, through the National Recovery and Resilience Plan, Pillar 2 Establishing a network of research higher education institutions in Bulgaria
- Total budget: 44 000 000 BGN (22 mln. EUR)
- Duration: 42 months (01.01.2023-30.06.2026)
- Nearly 700 people are working at the end of March 2025, estimated around 800 were involved in SUMMIT implementation so far

## Goal

To implement a new model for the development of the university as a research organization, increasing its capacity:

- to attract funding and form its budget through the implementation of research and innovation projects
- To participate as a full partner in European networks and consortia that compete successfully in leading European programs

Achieving this goal implies the creation of an environment conducive to attracting, engaging and developing talented researchers who will contribute to establishing the University as an educational, scientific and cultural center of pan-European importance, as well as to achieving top scientific results.

## Expected benefits:

Due to its scale the successful implementation of the program is of crucial importance for the development of Sofia University. More specifically it ensures:

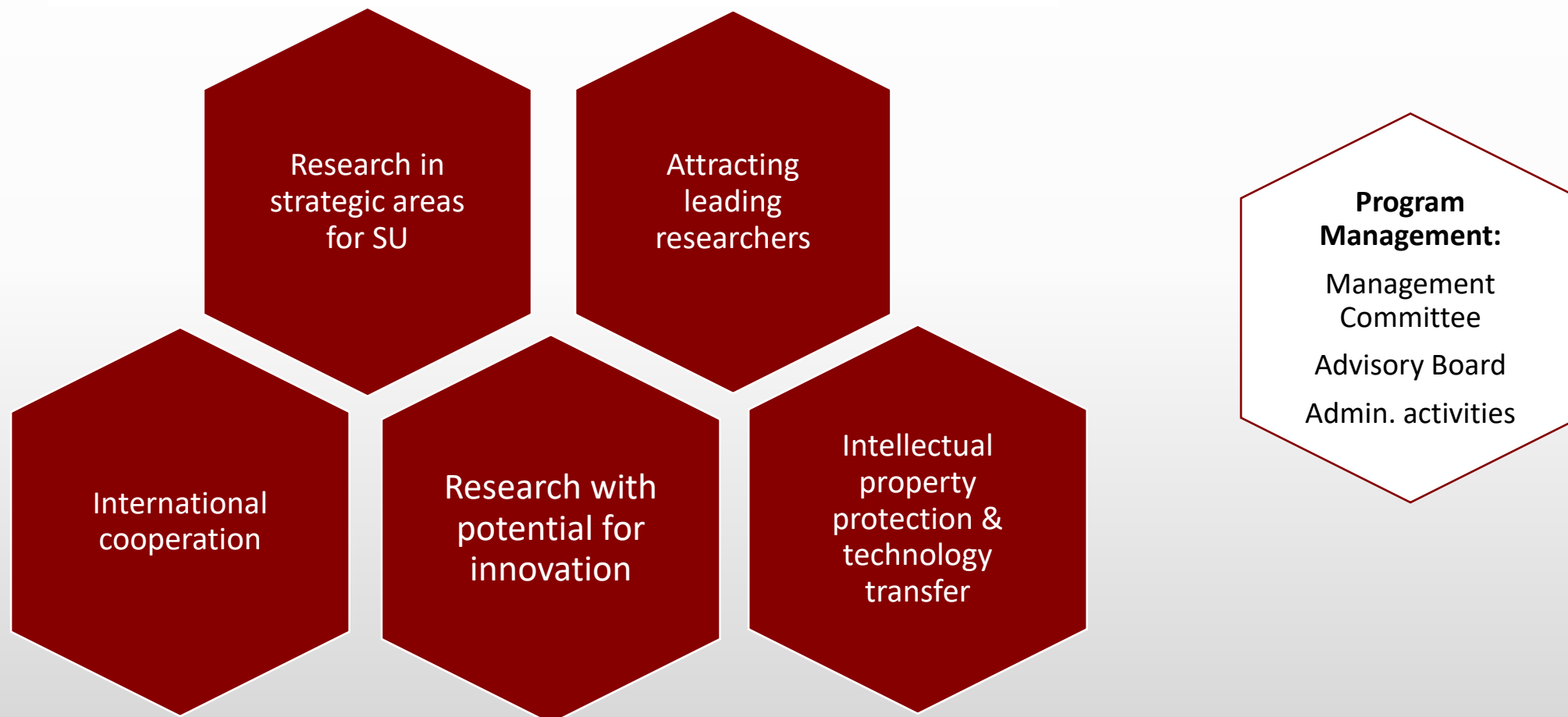
- Increased quantity and quality of scientific research through:
  - Attracting and retaining leading researchers
  - Attracting young researchers (so far 75 young researchers are contracted)
  - Improving the research infrastructure and physical environment (the planned investments are worth BGN 5 million)
- Improved visibility through publications in globally recognized databases (so far, the program has generated nearly 500 publications referenced in WoS and the target is 1066)

## Expected benefits:

- Increased patent activity and promotion of applied research (3 international patent applications filed so far)
- Extended international cooperation, incl. participation in scientific networks (13 international agreements have been signed so far)
- Attracted external funding and industry support (17 agreements with the industry signed so far)
- Improved position of Sofia University in international university rankings



## Main components of the program (activities)





Funded by  
the European Union  
NextGenerationEU



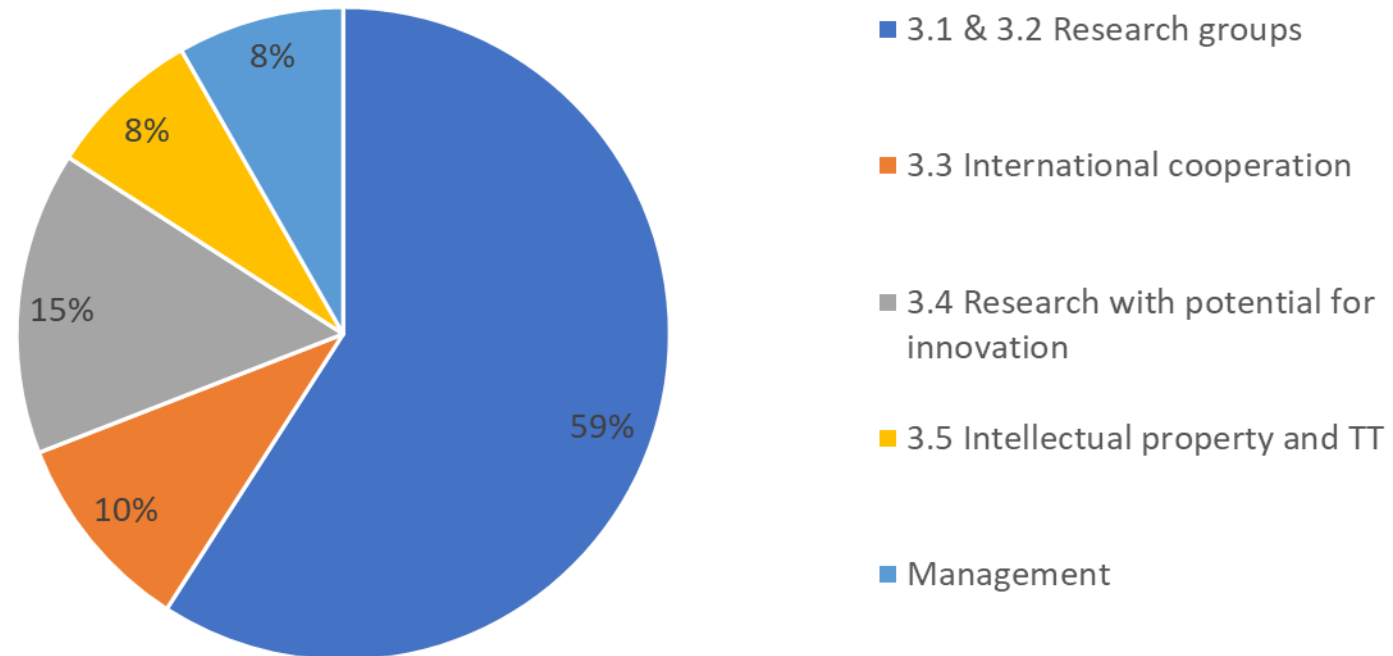
SOFIA UNIVERSITY -  
MARKING MOMENTUM  
FOR INNOVATION AND TECHNOLOGICAL TRANSFER

National Recovery and Resilience Plan



OF THE REPUBLIC OF BULGARIA

## Structure of the budget by activity



- **Activity 3.1: Research directed towards scientific areas strategic for Sofia University**
- 17 scientific groups formed led by leading researches from Sofia University in areas of physics, chemistry, medicine, biology, environment and earth sciences, mathematics, informatics, humanities, education, social sciences, economics
- Ensure the preservation and development of research capacity both by retaining and developing promising scientists and by attracting young researchers
- The work is carried out based on approved scientific programs that are part of the funding application
- Budget for 3.1 – BGN 20,5 million (47%)
  - Per group – 1.1 – 1.8 million
  - Distribution by the leading researcher depending on the specific needs





Funded by  
the European Union  
NextGenerationEU



SOFIA UNIVERSITY -  
MARKING MOMENTUM  
FOR INNOVATION AND TECHNOLOGICAL TRANSFER

National Recovery and Resilience Plan



OF THE REPUBLIC OF BULGARIA

No	Group Name	Lead Researcher	Subject
3.1.1.	Mathematical Physics and Astrophysics	Prof. Stoycho Yazadzhiev	Physical Sciences and Mathematics
3.1.2.	Active formulations and materials	Prof. Slavka Tcholakova	Soft matter
3.1.3.	GROWTH	Dr. Tsvetelina Velikova	Medicine, immunology, public health
3.1.4.	AQOT	Prof. Nikolay Vitanov	Quantum technologies
3.1.5.	Computational heterogeneous catalysis	Prof. Hristiyan Aleksandrov	Application of quantum chemical methods for the study of catalytic systems and reactions on them
3.1.6.	BAV (Biologically Active Substances)	Prof. Ivo Grabchev	New photosensitive compounds with sensing and bioactivity
3.1.7.	Functional materials	Prof. Tony Spassov	New functional materials for clean energy and environment
3.1.8.	Plant parasites	Assoc. Prof. Lyuben Zagorchev	Biology of parasitic plants
3.1.9.	GAMMA	Assoc. Prof. Mladen Savov	Random processes



Funded by  
the European Union  
NextGenerationEU



SOFIA UNIVERSITY -  
MARKING MOMENTUM  
FOR INNOVATION AND TECHNOLOGICAL TRANSFER

National Recovery and Resilience Plan



OF THE REPUBLIC OF BULGARIA

No	Group Name	Lead Researcher	Subject
3.1.10.	DigitalEdu-SU	Prof. Roumiana Peytcheva-Forsyth	Digital education
3.1.11.	Algology	Assoc. Prof. Blagoy Uzunov	Algae, algae cultures
3.1.12.	Intelligent systems	Prof. Ivan Koychev	Artificial Intelligence
3.1.13.	Climate, Weather and Natural Risks (CW&NR)	Assoc. Prof. Guergana Guerova	Earth and related environmental sciences
3.1.14.	Nuclear	Assoc. Prof. Krasimir Mitev	Experimental nuclear and sub-nuclear physics and technology
3.1.15.	European Values and Social Challenges (EuVaSC)	Prof. Maria Stoicheva	Social Sciences
3.1.16.	Digital Humanities. ICT applications for History and Language	Prof. Anna-Maria Totomanova Assoc. Prof. Maria Baramova	Digital Humanities
3.1.17.	Digitization of SMEs	Prof. Desislava Yordanova	Digitization, small and medium enterprises

## **Activity 3.2: Attracting external leading researchers in the scientific areas strategic for Sofia University**

- 5 research groups in strategic areas such as mathematics, chemistry, biology, physics and psychology, led by leading Bulgarian scientists from universities in the USA, France and the United Kingdom, as well as from the business - from Germany and Bulgaria.
- The goal is to attract world-class scientists who can complement the existing research capacity, to set high standards for scientific results and to raise to a new level the overall scientific activity of Sofia University
- The work is carried out based on approved scientific programs that are part of the funding application (as in Activity 3.1)
- Budget for 3.2 – BGN 5.5 million (13%)
  - Per group – 1.1 million
  - Distribution by the leading scientist depending on the specific needs (as in Activity 3.1)



Funded by  
the European Union  
NextGenerationEU



SOFIA UNIVERSITY -  
MARKING MOMENTUM  
FOR INNOVATION AND TECHNOLOGICAL TRANSFER

National Recovery and Resilience Plan



OF THE REPUBLIC OF BULGARIA

No	Group Name	Lead Researcher	Subject
3.2.1.	NATATA	Prof. Boyan Popov	Numerical Analysis and Theory of Approximations
3.2.2.	ZeoNeo	Prof. Valentin Valtchev	Zeolite materials for new applications
3.2.3.	New materials and photonics	Dr. Sotir Chervenkov	Development, characterization and applications of new materials for photonics
3.2.4.	Microbiological risks in the environment	Dr. Sergei Ivanov	Wastewater-based epidemiology (EWS)
3.2.5.	NUDGE: Behavior models, attitudes and Policy implementation for sustainable development	Prof. Ivo Vlaev	Behavioural Science

## Results reported for activities 3.1 and 3.2 as of 31.03.2025

- All research groups were formed already in the initial phase of implementation – 22
- A total of 341 researchers working on the scientific programs in activities 3.1 and 3.2, incl.:
  - 18 leading researchers from SU and 5 attracted external leading researchers
  - 75 young researchers
  - Other 243 team members
- 342 publications in WoS (70% of the total for SUMMIT)
- 12 agreements for participation in international scientific networks and bilateral cooperation signed
- 17 agreements with the industry signed

## Activity 3.3 International cooperation in the scientific areas strategic for the University

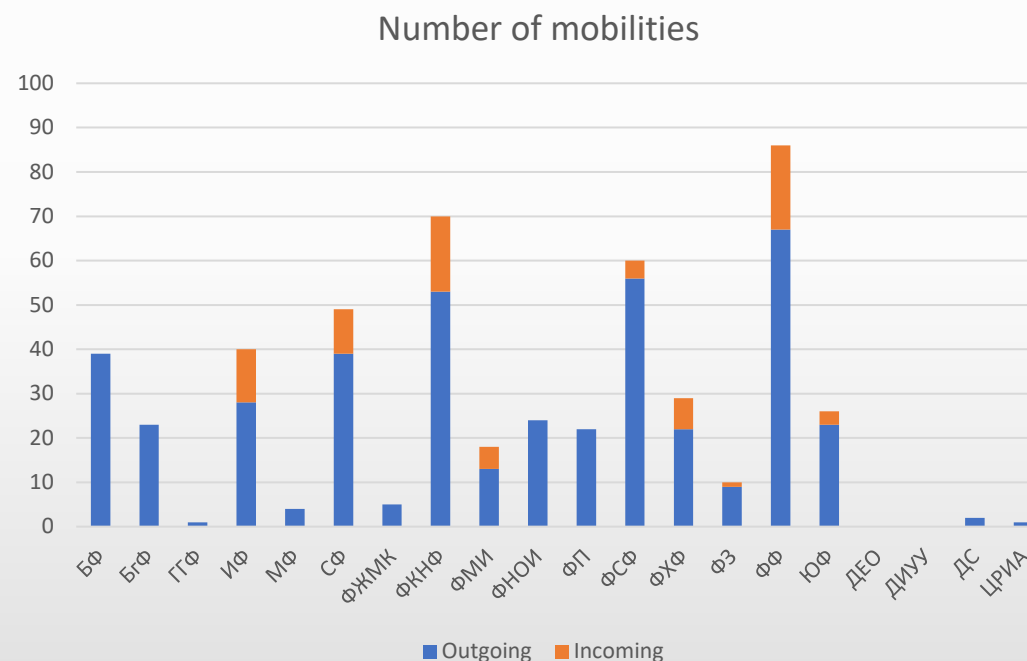
- Creates opportunities for international cooperation and increasing the scientific expertise of scientists who are not part of the research groups (activities 3.1 and 3.2)
- Funding is provided based on motivated application for:
  - Short-term specializations of researchers abroad
  - Participation of University scientists in conferences, seminars, etc.
  - Short-term research visits to laboratories, libraries, etc.
  - Attracting foreign guests from universities or business abroad
  - Organisation of scientific conferences, seminars, schools with external participation
- Budget - BGN 4.4 million (10%), allocated between faculties and departments based on objectively verifiable indicators

## Results reported for activity 3.3 as of 31.03.2025

- Procedure for selection and implementation of activities for international cooperation
- Package of documents for outgoing and incoming mobility
- Methodology for the distribution of funds by faculties and departments
- 546 mobilities carried out, including 470 outgoing and 76 incoming
- 1 agreement for international cooperation signed
- Extremely uneven activity by faculty, which creates a risk for absorption because according to the adopted methodology, funds are allocated by faculty

## UNEVEN ACTIVITY BY FACULTY

- We call on faculty deans to analyze the performance of their faculty against the allocated budget and to make maximum efforts to use it
- Inquiry made to the MA in early March about the possibility of access to this resource for team members of research groups under activities 3.1. and 3.2, if this is not related to their work in the research group





## **Activity 3.4: Research with potential for innovation or knowledge transfer/intellectual property**

- Provides support to projects that do not fall into the scientific programs of established research groups, maximum budget is BGN 200 000
- Expected to produce significant and visible results necessary for knowledge transfer through intellectual property protection or have the potential for innovation.
- Selected on a competitive basis according to the requirements of the call for proposals, organized by faculties
- Budget for activity 3.4 - BGN 6.6 million (15%), allocated between faculties and departments based on objectively verifiable indicators

## Results reported for activity 3.4 as of 31.03.2025

- Adopted methodology for allocation of funds, application, ranking and reporting of projects
- Developed package of documents for application, evaluation and ranking of project proposals
- Formed scientific commissions by faculties and departments to apply the procedures
- Two project selection sessions successfully held
- 93 projects approved and contracts signed, including 6 for patent applications
- All funds for activity 3.4 already contracted
- Six projects successfully completed
- Part of the more specific results of projects contracted in 2023 are presented on posters outside

## Activity 3.5: Intellectual property protection and technology transfer

- Provides support to scientists under activities 3.1, 3.2 and 3.4, as well as all other scientists at the University to be able to protect their intellectual property and to apply for patents
  - through trainings, consultations, support for the entire patent application process
- Works to establish an integrated system for technology transfer and university entrepreneurship at Sofia University
  - through optimizing the functions and competences of already established structures at the University level and using the expertise available
- Will develop an Internal Research Infrastructure Map and a Commercialization Map linked in a Unified Platform for promoting the University's intellectual property objects

## Results reported for activity 3.5 as of 31.03.2025

- Prepared forms for assessment of innovative capacity and preliminary research for patent purity
- Regulation on Industrial Property at Sofia University and a number of related accompanying documents
- 7 trainings in the field of intellectual property protection and technology transfer
- Ongoing Support for patent applications
  - Prepared and submitted 3 international patent applications
  - Additional 3 patent applications in advanced preparation
- Developed, submitted, and registered project logo as a European trademark (EUIPO)



Funded by  
the European Union  
NextGenerationEU



SOFIA UNIVERSITY -  
MARKING MOMENTUM  
FOR INNOVATION AND TECHNOLOGICAL TRANSFER

National Recovery and Resilience Plan

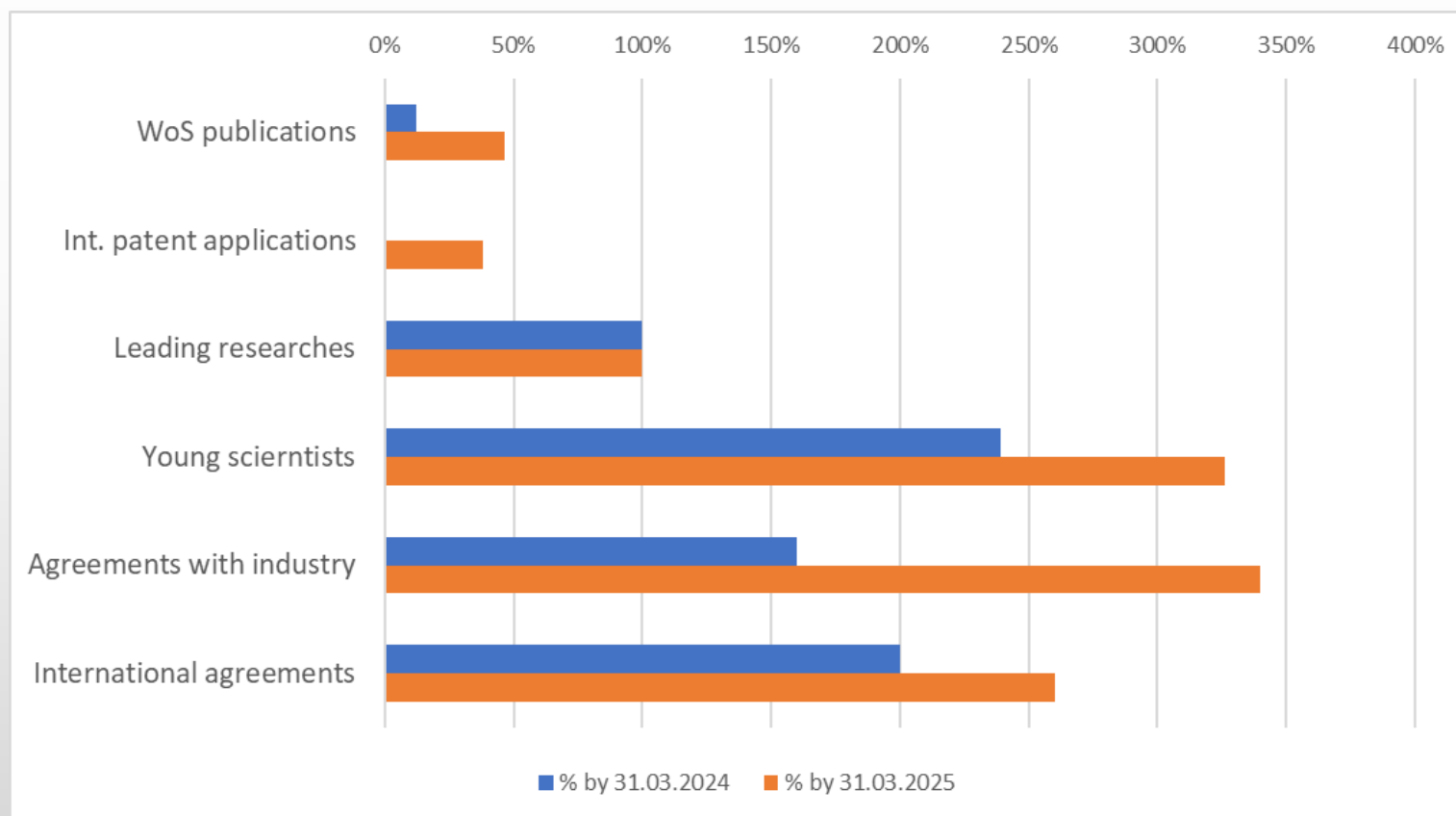


OF THE REPUBLIC OF BULGARIA

## Progress in terms of performance indicators

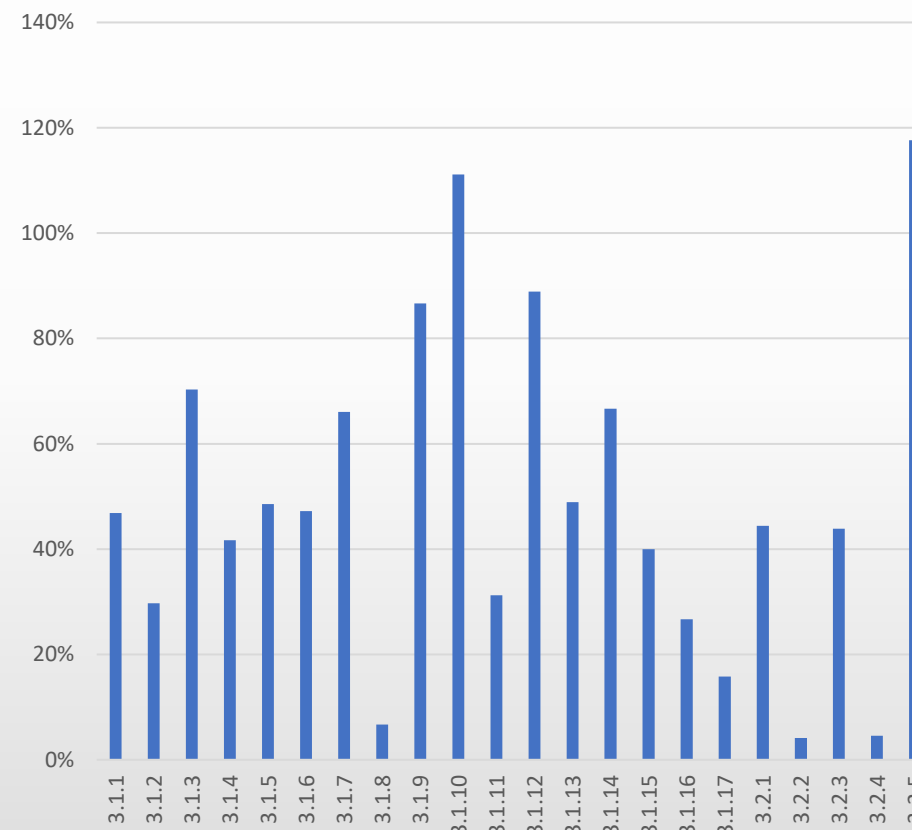
Indicator	Specification	Target value	Achieved by 31.3.2024	% by 31.03.2024	Achieved by 31.3.2025	% by 31.03.2025
Quality of research in the proposed sectoral specialization	A 20% increase in the number of publications (WoS) at the end of the period on an annual basis compared to 2020	1066	125	12%	493	46%
Patent activity and applied developments	New international patent applications	8	0	0%	3	38%
High qualification of personnel in the areas of sectoral specialization	Number of leading researchers to create or develop Research Groups	23	23	100%	23	100%
Attracting young scientists and improving their qualifications for conducting applied scientific research	Number of young scientists who took part in research funded under the programme	23	55	239%	75	326%
Attracted external funding and industrial support	Signed agreements with industry	5	8	160%	17	340%
International activity and participation in networks	Signed international agreements	5	10	200%	13	260%

## SIGNIFICANT ACCELERATION IN THE PROGRESS ON WoS PUBLICATIONS AND INTERNATIONAL PATENT APPLICATIONS



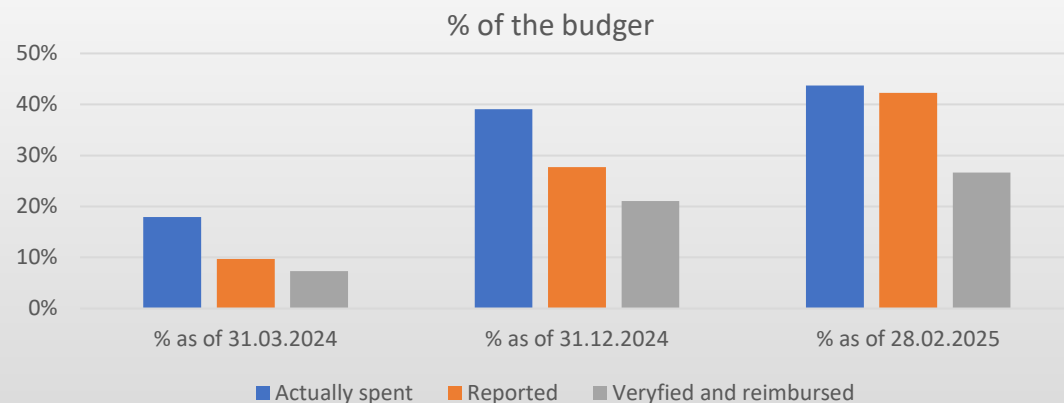
## WoS PUBLICATIONS

- An average of 90 publications have been reported over the last 4 quarters - the target is achievable
- 70% of the publications are generated by research groups under activities 3.1 and 3.2. However, the progress by research groups is very uneven – between 5 and 118% of the target value



## Progress in terms of financial absorption

	As of 31.12.2023	As of 31.03.2024	% as of 31.03.2024	As of 31.12.2024	% as of 31.12.2024	As of 28.02.2025	% as of 28.02.2025
Actually spent	4 809 407	7 881 149	18%	17 198 406	39%	19 239 594	44%
Reported	3 197 301	4 250 374	10%	12 198 974	28%	18 598 435	42%
Veryfied and reimbursed	3 197 301	3 197 301	7%	9 256 072	21%	11 735 745	27%



### Good news:

- In 2024, expenses are 2.5 times higher than in 2023
- Accelerated reporting in January and February + quick reaction of the IA – reimbursed expenditures increased in 2 months from 21 to 27%
- BGN 3.2 million reimbursed by 26<sup>th</sup> February. reimbursed expenses by end of March reached 34%



## Challenges of absorption

- Bad news - if we maintain the speed of 2024, the absorption by the end of the project will be 67%, i.e. one third of the allocated funds will not be utilized
- More efforts required regarding financial absorption to ensure full absorption of allocated funds:
  - To speed up the spending:
    - We call on all those responsible for incurring expenses to analyze the implementation of their budgets and take measures for faster absorption, especially for expenditures related to public procurement (supplies, works)
  - To maintain the achieved speed and improve the quality of financial reporting to accelerate verification and reimbursement of expenditures



Funded by  
the European Union  
NextGenerationEU



SOFIA UNIVERSITY -  
MARKING MOMENTUM  
FOR INNOVATION AND TECHNOLOGICAL TRANSFER

National Recovery and Resilience Plan



OF THE REPUBLIC OF BULGARIA

**Thank you  
for your attention**

