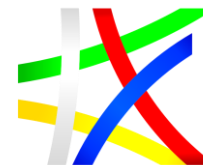




**EUROPEAN UNION**  
European Regional Development Fund



**OPERATIONAL PROGRAMME  
SCIENCE AND EDUCATION  
FOR SMART GROWTH**



The Project Nr.BG05M2OP001-1.001-0004 “Universities for Science, Informatics and Technologies in eSociety” (UNITE) is funded by the Operational Programme Science and Education for Smart Growth (OP SESG), whereas 85% comes from European Regional Development Fund, and 15% is national cofunding. Its timeframe is 6 years, starting on 28 February 2018 and finishing on 31 December 2023.

The UNITE project was ranked with the highest scores under the call of the OP SESG, and is funded for creation and development of a Centre of Excellence (CoE) in the priority axis Informatics and Information and Communication Technologies (ICT) of the Innovation Strategy for Smart Specialization (ISSS) of the Republic of Bulgaria. The grant is 29 781 882,42 BGN, 75% are foreseen for building research infrastructures.

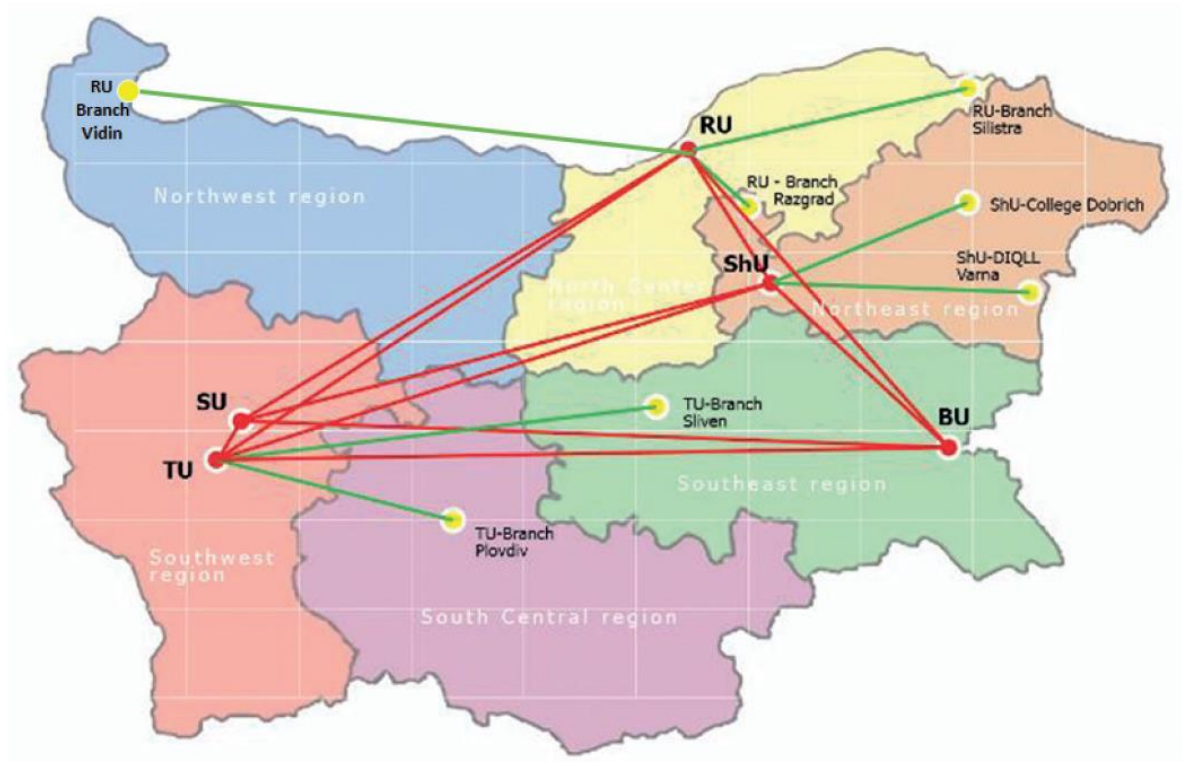
In the project participate 5 universities: Sofia University “St. Kliment Ohridski” (leading partner), Technical University – Sofia, Ruse University “Angel Kanchev”, University “Prof. Dr. Assen Zlatarov” Burgas, and Shumen University “Bishop Konstantin Preslavsky”.

Interest to participate in the project have declared 16 associated partners – Bulgarian and European universities, research institutes, ICT companies, NGOs, public bodies and secondary schools. The municipalities of Sofia, Burgas, Ruse and Shumen, where the UNITE partners are located, have presented letters of support to the project. Several researchers from Germany, Greece, France, Ireland, Korea, North Macedonia, Poland, Portugal, Romania, Spain, Switzerland, UK, etc. have also declared their interest in collaboration with UNITE.

The main goal of the project is creation and further development of Centre of Excellence with Distributed Research Infrastructure (DRI) UNITE as a competitive and internationally recognized research complex, meeting the requirements of a modern infrastructure and excellent research in the priority axis ICT. The specific objectives of the CoE UNITE are:

- Strengthening capabilities of Bulgarian researchers to collaborate at national and international levels using the established DRI;
- Fostering scientific support to the businesses in Bulgarian regions by providing access to high-quality DRI and consultation services, especially to SMES, and young entrepreneurs;
- Facilitating communication and information exchange between remote organizations by using advanced ICTs, and supporting new forms of work organization and business processes.

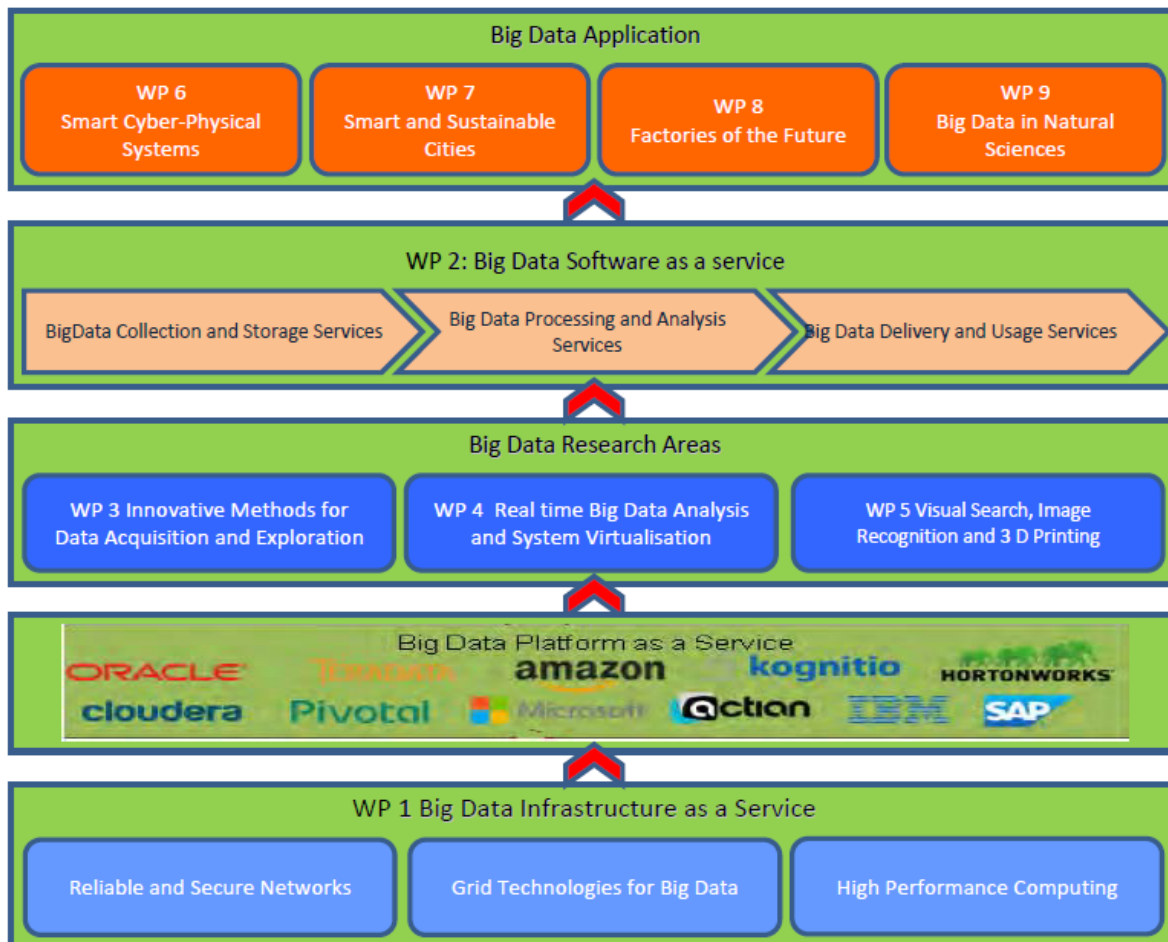
The UNITE DRI has direct impact on all 6 geographical regions in the country taking into account the geographical coverage of the partners universities and their branches.



The following characteristics make the CoE UNITE valuable and modern DRI:

- **ACCESS and SHARING**
  - Computer and communication resources distributed throughout the country;
  - Remote access and shared use of DRI.
- **CREATION and RECOGNITION**
  - Joint management structure and communication strategy;
  - Joint projects for knowledge creation;
  - Synergy and complementarity.
- **COOPERATION and CARRIER DEVELOPMENT**
  - Coherent scientific work package activities;
  - Strategic development of human resources;
  - Continuous flow of human potential.

The UNITE research work packages aim at specific contributions to the development of the priority axis ICT of ISIS. They are a cross section of shared areas of excellent research of the five universities unified to meet the OP SESG goals.



The work packages aim resolving several challenges of ICT implementation:

- development of smart and sustainable cities using advanced ICT solutions for management of transport, energy consumption, urban planning, smart living environments;
- development of Factories of the Future and transition to Industry 4.0 requiring ubiquitous use of digital technologies in enterprises, and optimization of their business processes;
- development of Cyber-physical systems ensuring users better control and interaction with the physical world;

Some of the scientific activities have horizontal impact and affect all economic and social areas, in which ICT is used. They contribute for resolving the challenges of economy and society for:

- taking full advantage of the available Big Data and facilitating their usage by all interested stakeholders;
- ensuring seamless, reliable and secure connectivity of an increasing number of devices in smart environments;



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- virtualization of real-time systems;
- digitization, visualization and representation of objects, locations, and events;
- building the basis for the next generation of materials and components through advanced research in nano-physics, quantum information, quantum chemistry, and nano-materials;
- development of new mathematical and statistical methods and algorithms supporting Big Data processing and analyses, and design of new cryptographic algorithms, systems and processes optimization, etc.

In order to ensure continuity in scientific excellence, and sustainable development of science and higher education in the field of ICT, UNITE envisages special measures for attracting young talents and facilitating the ICT career development of PhD students and young scientists. With its knowledge transfer activities and collaboration with various stakeholders the project will facilitate the digital transformation of Bulgarian economy and society. The achievement of high technological readiness of enterprises, and the intensive use of ICTs will be a key factor for higher competitiveness and economic growth.

Web: <https://unite-bg.eu/bg>; Facebook: <https://www.facebook.com/UNITEBG/>