

INFOCOMMUNICATIONS AND INFORMATION TECHNOLOGY NATIONAL LABORATORY

TO EASE SAFELY THE EVERYDAY LIFE IN THE FUTURE

The members of the consortium setting up the Infocommunications and Information Technology National Laboratory have set themselves a dual objective, in line with relevant national strategies: to support the safe deployment and use of emerging ICTs; and to support the digital transformation of public administrations. As a result, the Laboratory will focus on research on the vulnerabilities of 5G and 6G technologies that will form the backbone of future communications, on specific aspects of cybersecurity, and on the deployment of artificial intelligence (AI)-based solutions in e-government and law enforcement.



MAIN RESEARCH AREAS

- 5G radio interface protocol testing
- 5G radio interface vulnerability
- Cyber defence related researches
- Secure communication channels
- AI-based eGovernment
- Administrative use of AI
- National data assets
- Development integration points based on AI technology



INFOKOMMUNIKÁCIÓS ÉS
INFORMÁCIÓTECHNOLÓGIAI
Nemzeti Laboratórium

CONSORTIUM LEADER:

Special Service for National Security

CONSORTIUM PARTNER:

IdomSoft Zrt.

PLACE OF IMPLEMENTATION: Budapest



BENEFITS TO BE EXPECTED FROM LABORATORY RESEARCH

A more secure deployment of 5G and next generation technologies can be implemented by mapping the threats and risks stemming from 5G technology, with special attention on the specificities of the used protocols and the vulnerabilities of the radio interface.

A more secure cyberspace can contribute to achieve the national digitisation objectives.

Developing applications can support the improvement and the operation of efficient communication channels, protocols through learning new cryptographic directions, technologies and methods.

Introducing AI-based solutions in the eGovernment, costumers are releaved to provide any data that is already available in the public administration, as well as there is no more need for organisational or administrative tasking that can be solved by internal procedures and/or

communication among the relevant bodies.

Enabling touch-free, fully digitised and automated, secure and seamless public services to the citizens.

Enabling public services supported by AI language-tech solutions in order to fully address the specificities of the Hungarian language on the 21st century level.

Exploring the potential of the AI data analysis to protect the national data assets in order to avoid misuse of it, and to detect correlations and anomalies.

THE PROFESSIONAL TEAM

Dr. Hedvig Szabó: qualified lawyer with a degree in criminal law, administration manager, titular university associate professor, Director General of the Special Service for National Security

Gábor Pálffy: electrical engineer, engineer-operating manager, Director of the Cabinet of Director General of SSNS. Considering the tasks of the NBSZ in its complexity, its proposals greatly promote efficient and professional work. Through his professional knowledge, he is able to deal with problems affecting specialties, situations requiring technical and technological innovations and solutions in a system-level way, efficiently and quickly.

Attila Németh: telecommunications engineer with a law degree, security management system designer, director of the SSNS organizational unit involved in 5G research.

Lajos Szabó: degree in Computer Science, Director of the SSNS - National Cyber Security Center

Péter Pál Orosz: telecommunications engineer, member of the SSNS research working group,

Dr. Balázs Karlócai PhD: Pázmány Péter Catholic University, Faculty of Information Technology, Assistant Professor, Doctor of Engineering, CEO of IdomSoft Zrt

dr. Viktória Zelena: Head of division responsible for portfolio at IdomSoft Zrt. Expert in the data privacy implications of AI technologies.

Róbert Kuti: Development Manager of IdomSoft Zrt., professional consultant on developments related to AI technologies.

THE PROFESSIONAL TEAM

Zsolt Bányai: Deputy Chief Technology and Service Officer of IdomSoft Zrt., Head of IdomSoft's technological renewal (scalable microservice architectures, container technologies). Manager of Technology Solutions for the State Application Development Platform.

Viktor Vass: Technology Sector Director of IdomSoft Zrt. Strategist and resilient servant leader of technical teams and large-scale software solutions with a specialization in Analytics and Data Warehousing. Responsible for sustainable innovation in the field of Technology, IT Security and the Government Application Development Environment.

Zsolt Balog: Senior architect at IdomSoft Zrt. IT engineer with a specialization in communication networks, neural networks and banking informatics.

István Szviridov: police Lt. colonel, Head of the System Integration Division of the Law Enforcement Development Sector (FRÁ) at IdomSoft Zrt. Manager of the RFÁ developments, the AI technological developments (comprehension, interpretation, sound and image recognition), and the contact manager of the RFA technology towards the development areas of IdomSoft

Zsolt Balog: Senior architect at IdomSoft Zrt. IT engineer with a specialization in communication networks, neural networks and banking informatics

Zoltán Máthé: researcher-developer of the central technology division of IdomSoft Zrt., manager of the development and integration of R&D necessary for the protection and secure operation of the national data assets and related systems

TARGET GROUP

- Public administration institutions
- Law enforcement, defence and national security institutions
- Academic competence centres

CONSORTIUM PROJECT LEADER

GÁBOR PÁLFY

*Director of the Cabinet of Director
General of SSNS*



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