

COMET CENTRE

SBA RESEARCH

RESEARCH PROGRAMME: SBA-K1 NGC – SBA-K1 NEXT GENERATION CYBERSECURITY

Main location: Vienna, Austria

Thematic area: Digitalisation/IT



Thematic focuses

- Discrete Mathematics and Algorithmic Computing
- Secure and Intelligent Software
- Secure Resilient Systems

Planned realisation and outcomes

The SBA-K1 NGC project will make significant technological advances in three key areas of cyber security. In the area of **Discrete Mathematics and Algorithmic Computing**, the project will further develop critical tools such as CAgen – probably the world's fastest covering array generator –, and combinatorial models for privacy protection, disaster scenario generation and fraud detection.

Secure and Intelligent Software focuses on software and data as core components of modern systems. We develop methods and tools for establishing and measuring security and reliability in software systems and machine learning environments. We also take into account privacy and confidentiality of data. In addition, we explore and improve the reliability, quality and potential of modern AI technologies, especially for their use in cybersecurity.

As part of **Secure Resilient Systems**, SBA-K1 NGC will establish robust platforms for real-time Internet measurements, develop advanced methods for analysing IoT- and embedded devices, and create simulation models for assessing and strengthening the resilience of power grids. These innovations will promote academic excellence and enable efficient technology transfer to industry, benefiting a wide range of partners from cybersecurity companies to healthcare providers. Overall, we aim to strategically combine basic research, practical application and societal aspects to contribute to a secure and resilient digital infrastructure.

History of establishment

Founded in 2006 as a spin-off of the TU Wien with a national focus, we have become an established contributor to information security research and the international community, with approximately 130 employees.

COMET FACTSHEET

Selected company partners:

1. CYAN Security Group
2. Gesundheit Österreich
3. Raiffeisen Informatik
4. CERT.at
5. Frequentis
6. Meisterlabs
7. A1 Telekom Austria AG
8. Wiener Netze
9. RBI AG
10. Objentis Software Integration

Selected scientific partners:

1. TU Wien
2. University of Vienna
3. TU Graz
4. Vienna University of Economics and Business
5. AIT Austria Institute of Technology

Selected international¹ partners:

1. University of Hamburg, DE
2. Software Ecosystem Solutions, ALB
3. Euvic S.A., PL

Duration: 01.04.2025 – 31.03.2029 (4 years)
Staff employed at the Centre: about 100 FTE, thereof 82 scientists

Management: Markus Klemen, SBA Research, Managing Director
Edgar Weippl, SBA Research, Universität Wien, Scientific Director

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www.ffg.at/comet

¹ Partners with headquarters outside Austria