Science for better security.

SBA Research

SBA Research was founded in 2006 and is the first Austrian research center for information security. Over the last years, SBA Research has grown considerably, from initially 8 to over 80 employees. SBA Research aims to perform research geared towards practical application. Our range of research interests can be divided into four general areas. Area 1 mainly deals with organizational security issues (risk management, process aspects, awareness building, incident response), while Area 2 addresses questions of long-term digital preservation, privacy, and data security. Area 3 focuses on challenges in secure systems and coding, and Area 4 deals with hardware security, network security of future protocol standards, and security in mobile appliances.

The COMET program

SBA Research is a K1 Center of the Austrian COMET excellence center program (Competence Centers for Excellent Technologies), which funds a significant part of SBA's research efforts. This funding is granted by a jury of international experts in a rigorous, two-stage evaluation process. The requirements for COMET funding include high quality standards and strict guidelines that ensure targeted and efficient research. A number of international and national research projects round off our R&D activities.

In addition to their scientific work in COMET and other research programs, our employees teach at various universities and universities of applied sciences, thus making a significant contribution to knowledge transfer.

Areas of Research

Area 1 (GRC): Governance, Risk and Compliance	P1.1: Risk Management and Analysis P1.2: Secure Business Process Modeling, Simulation and Verification P1.3: Computer Security Incident Response Team P1.4: Awareness and E-Learning
Area 2 (DSP): Data Security and Privacy	P2.1: Privacy Enhancing Technologies P2.2: Enterprise Rights Management P2.3: Digital Preservation
Area 3 (SCA): Secure Coding and Code Analysis	P3.1: Malware Detection and Botnet Economics P3.2: Systems and Software Security P3.3: Digital Forensics
Area 4 (HNS): Hardware and Network Security	P4.1: Hardware Security and Differential Fault Analysis P4.2: Pervasive Computing P4.3: Network Security of the Future Internet

National research projects

SBA Research is involved in a number of national, state-funded research projects.

Silicon Malware: In this project, we analyze the possibility of planting malicious functionalities in hardware components during the manufacturing process.

AFOR: This study on digital forensics analyzes requirements for securing evidence and ways of linking different data sources, and evaluates new avenues of research.

INFORM: Development of a novel framework for Internet forensics with a special focus on Web 2.0 and cloud applications.

Moses4eGov: Moses4eGov demonstrates the applicability of model-driven development for planning disaster relief operations.

PIPE: A pseudonymization service that allows sensitive medical data to be stored and managed in a way that ensures both data security and privacy.

DIANA: Development of a methodology for automated information extraction, analysis, and semantic categorization of net-based information for police work in the context of threat scenarios.

MoBSeTIP: The objective of MoBSeTIP is the development of a tool for the automated generation of test cases for software security testing.

FAMOS: Initiative for the promotion of women in technology and for facilitating an easier entry of female researchers into academia.

International research projects

Internationally, SBA Research is currently involved in five projects and has gained a reputation as a top-class research center in Europe.

APARSEN: The objective of APARSEN is to synchronize the conflicting requirements of long-term digital preservation and information security and to establish international standards in this area.

INMOTOS: The objective of INMOTOS is a model-based, cross-sector risk assessment solution. The approach is comprehensive, including both the definition of a methodology and the development of software tools.

DIAMONDS: This EUREKA project focuses on establishing an international "Network of Excellence" in the field of automated software testing.

TIMBUS: TIMBUS is an EU project that addresses issues of long-term digital preservation of context-sensitive business processes under the aspect of IT security.

ABCDE: In the ABCDE project, SBA Research is a partner in exchange programs for highly talented young scientists from inside and outside the European Union.
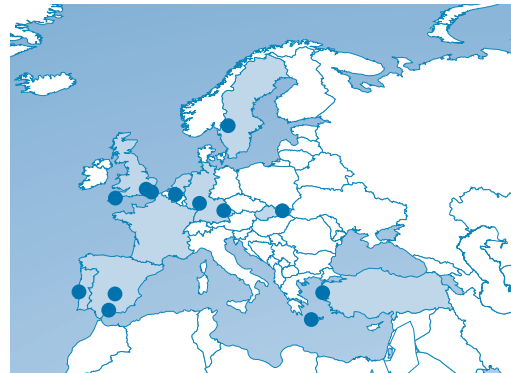
SBA Research
"to provide science for better security"

| COMET excellence center program | European and national research projects | Security consulting and software development |

International research

SBA Research has succeeded in establishing itself as Austria's leading center for information security. At the same time, we have built a unique, interdisciplinary research network that encompasses all research areas relevant to information security.
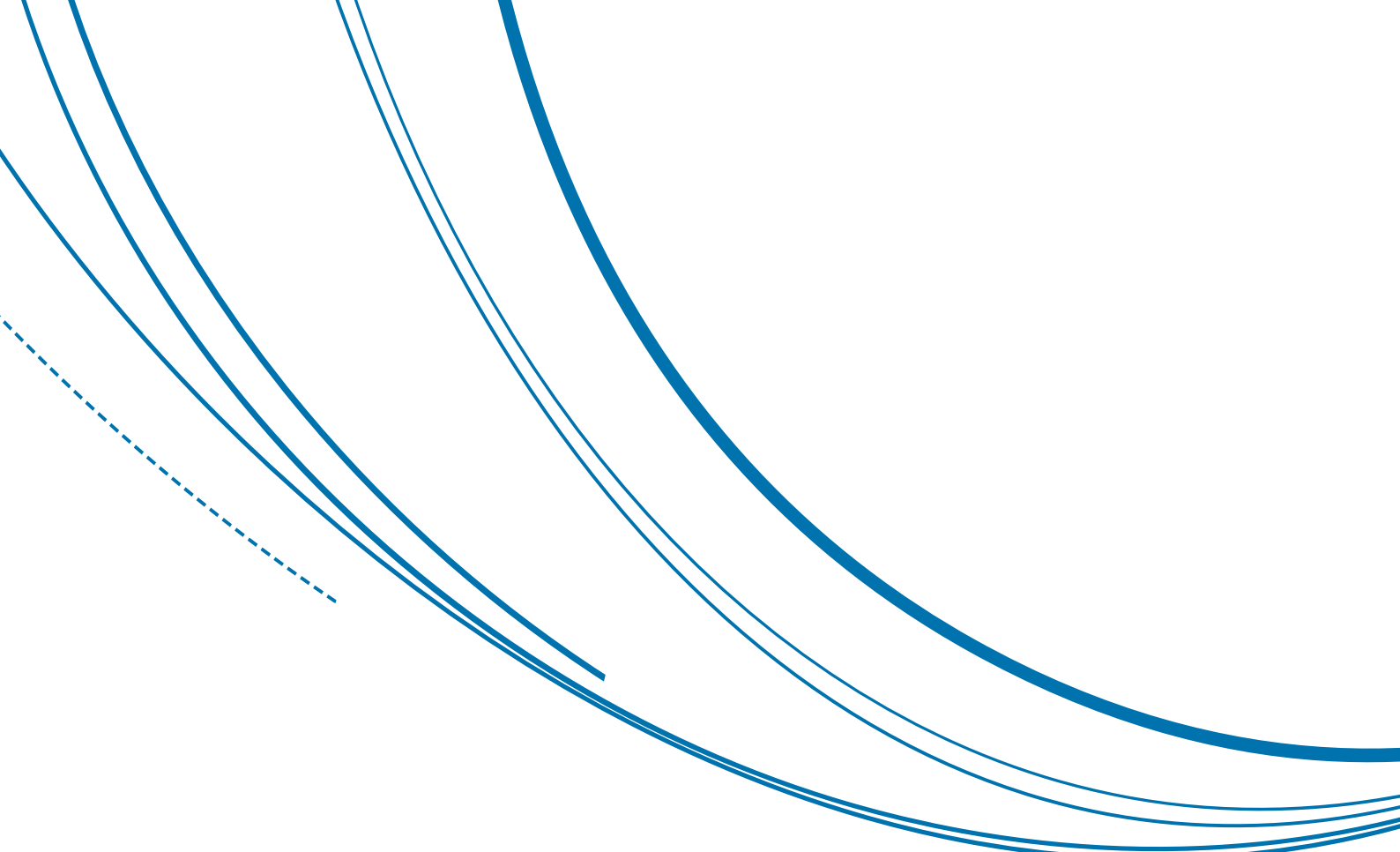
Among others, SBA Research cooperates closely with the following research institutions:

– TU Darmstadt
– University of Regensburg
– NII Tokyo
– University of California, Santa Barbara, CA
– Northeastern University, Boston, MA
– Purdue University, West Lafayette, IN

Business cooperation

Partner companies of SBA Research benefit directly from our scientific findings and are closely involved in our joint research projects. We also provide consulting and services in the field of information security as well as highly specialized software development.

Our partners include A1 Telekom, Andritz Hydro, A-SIT, Braincon, Bravestone, the Austrian Federal Computing Centre, Cyan Networks, Factline, Fenz Software, Genosense, Gesundheit Österreich, HP Austria, Last Line of Defense, NIC.at/CERT.at, the Austrian Parliamentary Administration, Procom Strasser, Raiffeisen Informatik, the health insurance fund SVA, Theobroma, UC4 Senactive, Underground_8, Vertretungsnetz, XiTrust, and various banks and public institutions.

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