Federal Ministry
Republic of Austria
Agriculture, Regions
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KIRAS
Security Research

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KIRAS – An Austrian Approach to a European Perspective

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Comprehensive Approach of Security Research in Austria

➢ General Mission Goal: Develop the technologies and gain the knowledge necessary to safeguard Austria and its citizens.

➢ Based on a broad, circumspect notion of security ("Security – **not** Safety")

➢ Due consideration of the developments on the European level (Complementarity of national programmes)

➢ Integration of all relevant actors and stakeholders (mandatory inclusion of end-users, industry and experts on humanities, social sciences and cultural studies (HSC*) into every KIRAS-project)

➢ Civil focus → dual use

➢ KIRAS and the national defence research programme FORTE form the „Safety pin", a coordination mechanism to concentrate the whole range of security research funding in one Ministry (BMLRT)*

* For more detailed information on the programs follow www.kiras.at/en and www.forte-bmlrt.at/en

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Implementation in Austria
KIRAS – Mode of Operation

✓ **The BMLRT is the programme owner and funding authority of the national "Safety Pin" security research framework,** consisting of the **civil security focused KIRAS,** the **defence oriented FORTE** and the **future specialized, cyber security mandated Kybernet-Pass (to become operational in 2022)** research **programmes**

✓ **Strategic coordination** takes place within the framework of a **steering committee** consisting of all ministries and stakeholders relevant for security research (Federal Chancellery, MoI, MoD, BMVIT, Scientific Council, Social Partners, etc.)

✓ **KIRAS programme-management** is provided by the Austrian Research Promotion Agency (**FFG)**

✓ For the annual calls of on average € 14 M Budget (9 M for KIRAS, 5 M for FORTE), **various FFG-financing instruments** are employed for **funding rates of up to 85% (exception: Instrument F & E-DL: 100% financing)**

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KIRAS-Funding and Figures

Number of Calls 2006-2021	34
Number of submitted projects	827
Number of approved/funded projects	322
Ratio approved/funded to dismissed projects	~ 1 : 2,6
Total project costs	~ 157,4 M €
Total funding	~ 111,8 M €

Economic effects measured until the December 2020:
- Approx. 195,5 M € added-value induced by 103,4 M € funding value.
- Employment effects: over 3400 jobs created or maintained.

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Security Research – Examples of project focus areas

✓ C4 – Situational awareness and operation command/decision support

✓ CP-CIP – Cyber/physical critical infrastructure protection

✓ Smart surveillance

✓ Airborne multi-sensor systems/platforms (e.g. for wild-fire, flooding and people observation)

✓ Security at mass gatherings and protection of crowds

✓ Semi- and fully autonomous vehicle systems

✓ Border and airport security (i.e. ABC gates/checkpoints, mobile registration equipment)

✓ Cyber security

✓ Deep Fake detection & hybrid threats

✓ OSINT (including counter-radicalisation and migration flow efforts)

✓ Risk- and threat analyses (e.g. cascading effects of power "blackouts")

✓ HSC focussed research on "Security and Society" incl. LEA training and "resilience" of citizens against natural and man-made hazards

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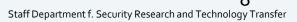# KIRAS-Projects related to Cyber Security

- ➢ **3B3M** – Anti fraud measures to protect state-of-the –art contactless payment methods
- ➢ **ACCSA –** Preparation for cyber crises with comprehensive training, exercise and evaluation concepts for all stakeholders of the Austrian cyber crisis management (CKM)
- ➢ **4C4FirstResponder** - Flexible multifunctional communication and information solutions for optimized deployment of first responders
- ➢ **Cyber Heroes** – Mobilizing young people for counter speech in dealing with cyberbullying, hate and trolling on the Internet
- ➢ **CISA** – Creation of a comprehensive cyber threat situation awareness for Critical Infrastructure Protection
- ➢ **CSISmartScan3D** - 3D-crime scene recording and documentation via cost effective3D sensors and tablets/smart phones
- ➢ **Digitaler Atlas Österreich** – Overview on the digital infrastructure components and networks relevant for Austria including their dependences, data traffic routing as well as significant related market and ownership structures.
- ➢ **ePartizipation** – research of online citizen participation tools by using various authentication and identification methods.
- ➢ **KIF –** Research of quantum-computer secure cryptographic methods for key management and to ensure object authenticity and data integrity.for short-range as well as long-range communication.
- ➢ **ITsec.at** – Inurement of the Austrian IT-landscape against special external threats from the cyber realm
- ➢ **IoThreats** – Preparing law enforcement agencies for future challenges, technologies and requirements regarding Smart Homes in the context of security
- ➢ **CySiVuS -** Analyzation of legal and technical cyber security aspects for a comprehensive road transport infrastructure system intensively used by interconnected cars in future from the perspective of the road operators
- ➢ **APT-CC –** Establishment of an APT Competence Center in Austria to support the observation and investigation of espionage and sabotage in security-relevant organizations and critical infrastructures
- ➢ **VIDRO** – tool development for systematic anaylsis of virtual drug dealing market places in the „dark net" as well as „translation" of the gathered data for police investigations
- ➢ **VIRTCRIME** – Forensic Methods and Solutions for the Analysis of Criminal Transactions in Post-Bitcoin Cryptocurrencies.

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KIRAS & European Security Research Programme – A fruitful relationship

- KIRAS was the first national security research programme within the EU (starting 2005). Because of Austria's spearheading role the programme's strategic principles were over time to a very high degree implemented into the European security research programme (ESRP)

- The early start of KIRAS and the (relatively) less complex funding environment on the national level allow Austrian stakeholders to thrive (**Austrians partners are participating in close to a third of all funded ESRP-projects**) in the extremely competitive European Security Research Programme since its start back in 2007.

- Since the start of ESRP, **275 Austrian participants were provided with € 100 M for participating in 180 funded project**s

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Thank you very much for your attention!

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