ICT-216026-WOMBAT
Worldwide Observatory of Malicious Behaviors and Attack Threats

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Project Motivation

- Cyber-crime becomes harder to battle
  - Malware specifically designed to defeat today's best practices
  - Organization is consolidating malicious activity into a profitable professional endeavour
- Data collection and sharing is limited
  - Collection initiatives are heterogeneous
  - Privacy or confidentiality limits sharing
  - Data structure and analysis remains private
- No investigation framework exists for consistent and systematic malware analysis

The WOMBAT Consortium

EURECOM
Sophia Antipolis

orange™

TU WIEN
Technische Universität Wien
Vienna University of Technology

NASK

POLITECNICO DI MILANO

symantec™

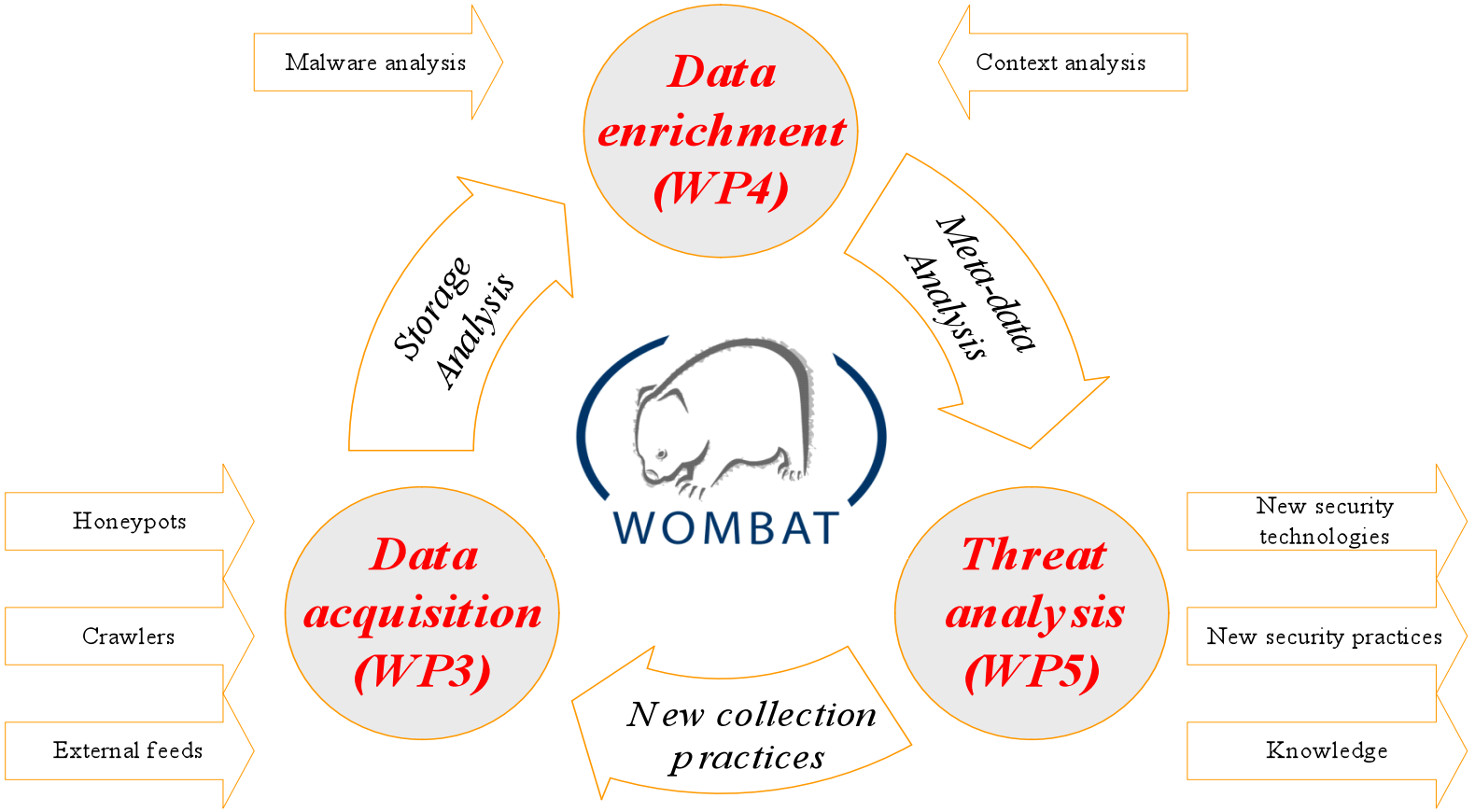
vrije Universiteit

FORTH

Institute for Infocomm Research
A*STAR

HISPASEC SISTEMAS

Main objectives and principles



Services/Tools

- Argos
- Shelia
- Paranoid Android
- Anubis
- SGNET
- VirusTotal
- Harmur
- Bluebat
- HoneySpider Network
- Honeybuddy
- FIRE
- Exposure
- Banomad

Ongoing data feeds

- Several of the new services will remain available for the greater good of the community
- Symantec has launched the WINE initiative, as a follow up to its experience within WOMBAT
- WINE will keep supporting some of these data feeds and provide a place to host and use these data.

WAPI

- The WAPI is the common interface to most of the new data feeds
- WAPI has been offered to the community and is being used by other data collectors
- WAPI is now an open source project hosted on sourceforge.

Technical transfer

- Several partners have initiated technical transfers:
  - Hispasec with Banomad
  - NASK with HoneySpider Network
  - Symantec with WINE (SGNET and HARMUR) and TRIAGE

Impact

- Improve our knowledge about malicious code
  - through data exchange
    - Malware
    - Analysis results for context consolidation
  - to understand malware activities and trends
- Supported by technologies and tools
  - New sensors for data acquisition (wireless, …)
  - New analysis techniques (code, context, …)
- To improve our posture w.r.t. threats
  - Proposals for new technologies for enterprise and home-use
  - Proposals for new practices (CERTs, ISPs) and regulations

Other stuff

Visibility

- More than 60 peer reviewed publications (conferences, journal, books)
- 55 other dissemination activities
- Several dozens of articles in mass media
- The WOMBAT/BADGERS workshop was very well attended and received
- "WOMBAT" is a known and well regarded project within the security community.

Outcome: the big picture

- A very strong team
- An extraordinary visibility
- A role model in operational security
- A number of new services on the web
- Ongoing data feeds collaboration
- The WAPI
- Several industrial technical transfers.
- A number of lessons learned on the threats landscape

Lessons learned

- The TRIAGE framework enables multi dimensional analysis of security events.
- It has been applied to several data sources and led to interesting findings. It has been used and is being transferred within Symantec.
- Publications of these lessons contributed significantly to the visibility of WOMBAT.