





Trusted IoT

User group meeting June 9th, 2023





Trusted IoT - agenda

- 12h00 13h00: lunch
- 13h00 13h15: welcome and (re-)introduction
- 13h15 13h45: progress VUB
- 13h45 14h15: progress KU Leuven
- 14h15 14h45: floor to the companies
- 14h45 15h30: discussion + demos
- 15h30 16h00: after match



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Welcome and (re-)introduction

Research project:



Funded by:



Research groups:



Vrije Universiteit Brussel

A. Braeken, L. Segers, B. da

Silva, and A. Touhafi





N. Mentens, M. Rabbani and J. Vliegen



Brandenburg University of Technology Cottbus-Senftenberg

M. Reichenbach and J. Knödtel



Technische Universität Dresden

D. Göhringer and S. Pertuz



Gesellschaft zur Förderung angewandter Informatik e.V.

I. Rettig, M. Schneider, and B. Drost



Trusted IoT - planning





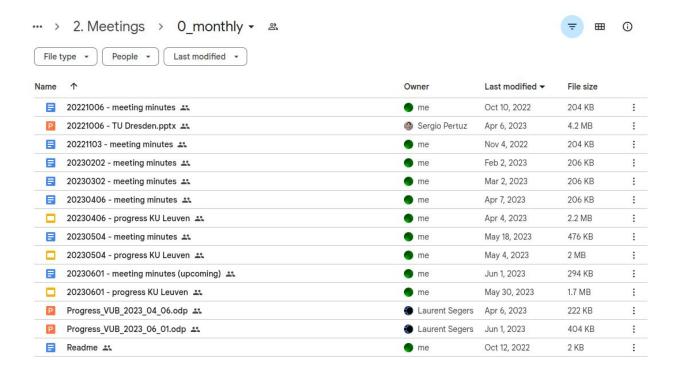
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Task	KS
T 1.1	Meetings
T 1.2	Discussions
Deli	verables
D 1.1	Reports of Meetings and Discussions
Mile	stones
M 1.1	Personnel is hired, contracts with companies are signed



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- T1.1 Meetings
 - monthly progress meetings are held every first Thursday of the month





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- T1.1 Meetings
- T1.2 Discussions
 - ad hoc and in depth discussions among the involved partners
 - none have taken place yet



WP1: Project Management

- T1.1 Meetings
- T1.2 Discussions
- D1.1: Reports of Meetings and Discussions
 - M6, M12, M18, M24
 - M6 meeting is this one
 - M12 meeting will be in October
 - with <u>all</u> German partners
 - reports can be found on the website



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Downloads

FILES OF THE KICK-OFF MEETINGS

German meeting - December 1st 2022, ???

Belgian meeting - December 2nd 2022, Brussels

- Slides of Introduction (here)
- · Slides of Embedded security + VUB use cases (here, and here)
- Slides of RISC-V + KU Leuven use case (here)

DELIVERABLES IN WP2

- D2.1 (M3): Requirements Specification for the Use Cases. (pdf)
 - This deliverable contains the technical, functional and security related requirements for each use case.
- D2.2 (M3): Specification of the Architectural Framework. (pdf)
 - This deliverable includes the overall framework architecture to define the different components, which meet these requirements and define the intercommunication among these components in order to address all the requirements in an integrated way.



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- T1.1 Meetings
- T1.2 Discussions
- D1.1: Reports of Meetings and Discussions
- M1.1:
 - Personnel is hired
 - contracts with companies are signed (M3)



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WP2: Exploration, Specification & Requirements study

Tasi	ks
T 2.1	System decomposition & system modelling
T 2.2	Risk analysis
T 2.3	Security analysis
T 2.4	Hardware-assisted mitigation solutions
Deli	verables
D 2.1	Requirements Specification for the Use Case
D 2.2	Specification of the Architectural Framework
Mile	estones
M 2.1	Identification of requirements and architectures for all use cases



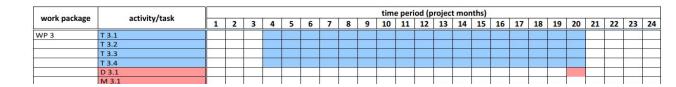
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WP2: Exploration, Specification & Requirements study



Deliverables are available on the website

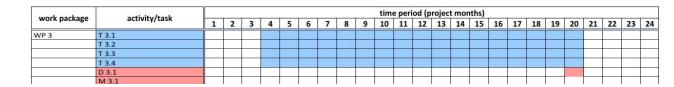




WP3: Platform-specific security solutions

Tasi	KS
T 3.1	(BTU) Coarse-Grained Reconfigurable Architectures (CGRAs)
T 3.2	(TUD) Ultra Low-powered FPGA
T 3.3	(KU Leuven) Multi-Core RISC-V platforms
T 3.4	(VUB) Heterogeneous Embedded system Architecture
T 3.5	(GFAI) Analysis of heterogeneous processing systems in the application context
Deli	verables
D 3.1	Platform specification and specification of the solution, based on SotA
Mile	stones
M 3.1	Identification of the platform and its inherent security features





WP3: Platform-specific security solutions

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	D 4.1																								
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	M 4.2																								

WP4: Industrial Use Case Demonstration

Task	ks
T 4.1	(BTU) Industry 4.0
T 4.2	(TUD) Mobile Robots
T 4.3	(KU Leuven) Drones 4.4
T 4.4	(VUB) Environmental Monitoring
T 4.5	(GFAI) Cooperative robotics
Deli	verables
D 4.1	Report, evaluation and documentation of the implementation details
Mile	stones
M 4.1	First prototype for each use case
M 4.2	Final prototype and evaluation of each use case



work package	activity/task										tim	e peri	od (p	rojec	t mon	ths)									
work package	activity/task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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WP4: Industrial Use Case Demonstration

Tasi	ks												
T 4.1	(BTU) Industry 4.0												
T 4.2	(TUD) Mobile Robots	STILL											
T 4.3	(KU Leuven) Drones 4.4	TO											
T 4.4	(VUB) Environmental Monitoring	come											
T 4.5	(GFAI) Cooperative robotics												
Deli	4.2 (TUD) Mobile Robots 5. 4.3 (KU Leuven) Drones 4.4 4.4 (VUB) Environmental Monitoring 6.4.5 (GFAI) Cooperative robotics Deliverables 9.4.1 Report, evaluation and documentation of the implementation details Milestones												
D 4.1	Report, evaluation and documentation of the implementation details												
Mile	7 4.3 (KU Leuven) Drones 4.4 7 4.4 (VUB) Environmental Monitoring 7 4.5 (GFAI) Cooperative robotics **Deliverables** 9 4.1 Report, evaluation and documentation of the implementation details **Milestones**												
M 4.1	First prototype for each use case												
M 4.2	Final prototype and evaluation of each use case												



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WP5: Dissemination and Exploitation

Tasi	(S
T 5.1	Dissemination activities
T 5.2	Communication activities
T 5.3	Exploitation activities
Deli	verables
D 5.1	Report on dissemination, communication and exploitation activities
D 5.2	Report on dissemination, communication and exploitation activities
Mile	stones
M 5.1	Kick-off meeting + project website
M 5.2	First intermediate joint event
M 5.3	Final event
M 5.4	Development of course material & platform with tool flows



work package	activity/task										time	e per	iod (p	rojec	t mor	nths)									
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- T5.1 Dissemination activities
 - Organization of kick-off meeting ...
 - During the first year of the project, several one-to-one meetings will be organized with members of the user groups
 - Approximately, at M6 and M18, we will organize an intermediate meeting ...
 - In the middle (M12) and at the end (M24) of the project, we will organize a broad dissemination event in collaboration with networking organisations We will participate in other national events (organized by network organizations like DSP Valley, Agoria, etc) and international conferences in order to present the results of the project.



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WP5: Project Management

- T5.1 Dissemination activities
- T5.2 Communication activities
 - A project website will be developed on which the project will be presented and the slides of the
 meeting of the project will be made available to the members of the user group.
 - Scientific papers will be published in conferences and journals.
 - The project will be made visual on **social media** (Twitter, LinkedIn,...)

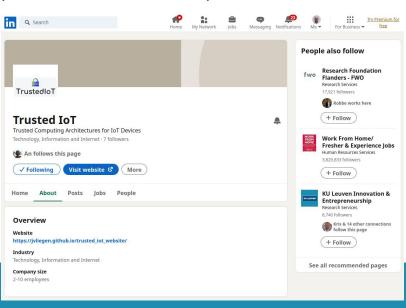


Photo by S. Tsuchiya on Unsplash

Trusted IoT

Trusted IoT is a research project, funded by CORNET (COllective Research NETworking). The project







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- T5.1 Dissemination activities
- T5.2 Communication activities
- T5.3 Exploitation activities
 - We will define internships, master and bachelor theses around the topics of the project.
 - We will include parts of the results of this project into courses of the students.
 - At least one follow-up project will be defined on the basis of this project.
 - A **platform** will be developed in which open source tool flows for trusted computing and specific HW architectures will be shared.

	activity/task										time	e peri	iod (p	rojec	mor	ths)									
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- T5.1 Dissemination activities
- T5.2 Communication activities
- T5.3 Exploitation activities
- D 5.1 / D 5.2
 - A report on the dissemination, communication and exploitation activities will be made in M12 / 24

work package	activity/task										time	e peri	iod (p	rojec	mor	nths)									
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- T5.1 Dissemination activities
- T5.2 Communication activities
- T5.3 Exploitation activities
- D 5.1 / D 5.2
- M 5.1: Kick-off meeting is realized and project website is online (M3)
 - https://jvliegen.github.io/trusted_iot_website/downloads/

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- D 5.1 / D 5.2
- M 5.1: Kick-off meeting is realized and project website is online (M3)
- M 5.2: First intermediate joint event is organized (M14)
 - This event will take place in October 2023
 - Invitation will come later

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- M 5.2: First intermediate joint event is organized (M14)
- M 5.3: Final event is organized (M24)

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- M 5.1: Kick-off meeting is realized and project website is online (M3)
- M 5.2: First intermediate joint event is organized (M14)
- M 5.3: Final event is organized (M24)
- M 5.4: Course material is developed, platform with tool flows is operational (M24)

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Trusted IoT - see you again after summer

credits:

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