



The European watch
on cybersecurity & privacy

Cybersecurity challenges in the IoT era

Webinar | December 11, 2019



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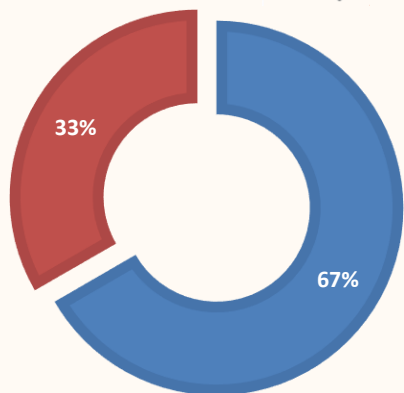
Agenda

- 11:00 - 11:05 Introduction and Cyberwatching.eu Clustering activities
Michel Drescher, Oxford University, Cyberwatching.eu
- 11:05 - 11:15 Using IoT platform security with mF2C to develop scalable secure edge-to-cloud applications
Dr. Jens Jensen, principal scientist, UKRI-STFC, mF2C
- 11:15 - 11:25 The LSPs programme: privacy and security in IoT
Dr. Pasquale Annicchino - Archimede Solutions SARL, CREATE-IoT
- 11:25 - 11:30 Q&A
- 11:30 - 11:40 Dynamic security management of distributed IoT/CPS scenarios
Dr Antonio Skarmeta, Professor Universidad de Murcia, ANASTACIA
- 11:40 - 11:50 The legal challenges and opportunities of IoT
Anastasia Botsi, ICT Legal, Cyberwatching.eu
- 11:50 - 11:55 Q&A
- 11:55 - 12:00 Closing Remarks

Participants

36 Webinar Registrants

Gender ♂♀



■ Male
■ Female

Geographical breakdown



36 countries represented



31 Europe



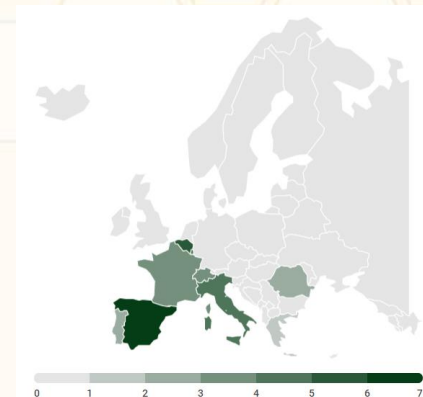
3 Asia



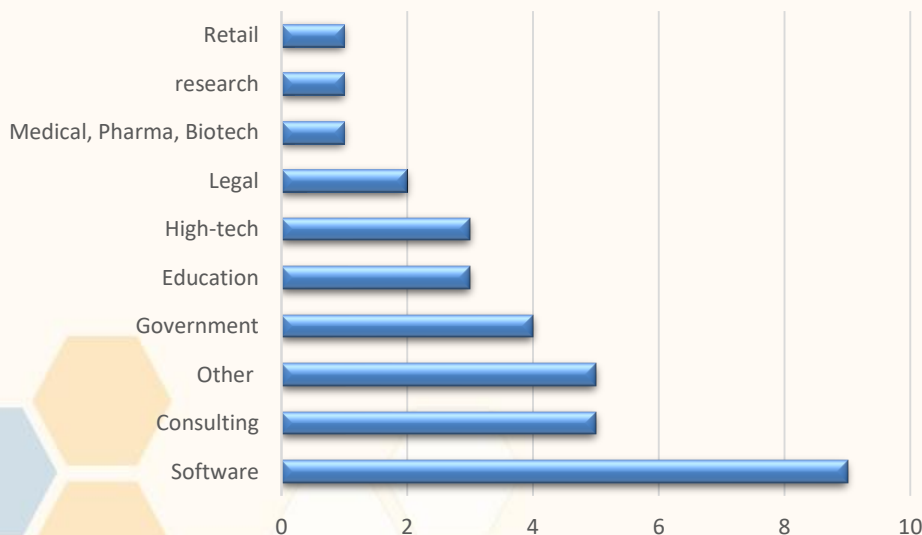
1 America



1 Africa



Organisation type



Main Takeaways

- Learn the project clustering relevant for the cybersecurity taxonomy
- Learn more about practical tools and solutions to reduce cyber risk and threats
- Get insights on different opportunities of securing IoT devices in different areas and use cases
- Learn IoT Security best practices from international experts
- Become part of our cybersecurity community.

Mission & objectives

Become “THE” European observatory of research and innovation in the field of cybersecurity and privacy.

- Addresses the need for coordination of EU CS&P R&I.
- Define, promote, implement and maintain the observatory for monitoring R&I initiatives throughout EU & Associated Countries’
- This will lead to synergies between national, regional and European initiatives in this field.

- Coordination Support Action (740129)
- May 2017 - April 2021 (48 months)
- Keywords: **TECHNOLOGY, POLICY & STANDARDS, ENGAGEMENT, MARKET**

 **Trust-IT Services**
Communicating ICT to markets

 UNIVERSITY OF
OXFORD

 **ICT**
LEGAL CONSULTING
Balboni Bolognini & Partners

 **aei ciberseguridad**
Agrupación Empresarial Innovadora
CIBERSEGURIDAD y Tecnologías Avanzadas

 **AON**

 **European Digital SME Alliance**

CONCEPTIVITY
360 SECURITY

Objectives

01: Design, implement and maintain an **EU R&I in cybersecurity and privacy Observatory**

02: **Monitor and cluster cybersecurity & privacy investments** in EU & Associated Countries. Dialogue & synergies.

03: Support **policy, regulatory standards & legal discussions**

04: Online EU "catalogue of R&I results & solutions"

05: **Marketplace** of services, with supply & demand players.

06: **Sustainability model** for the observatory including cyberinsurance elements that users may access via the marketplace.

07: An **engaged stakeholders community** including an "end-users' club" which will be a 'validation lab' of EU research results

08: Two versions of an "EU Cybersecurity & privacy Roadmap"

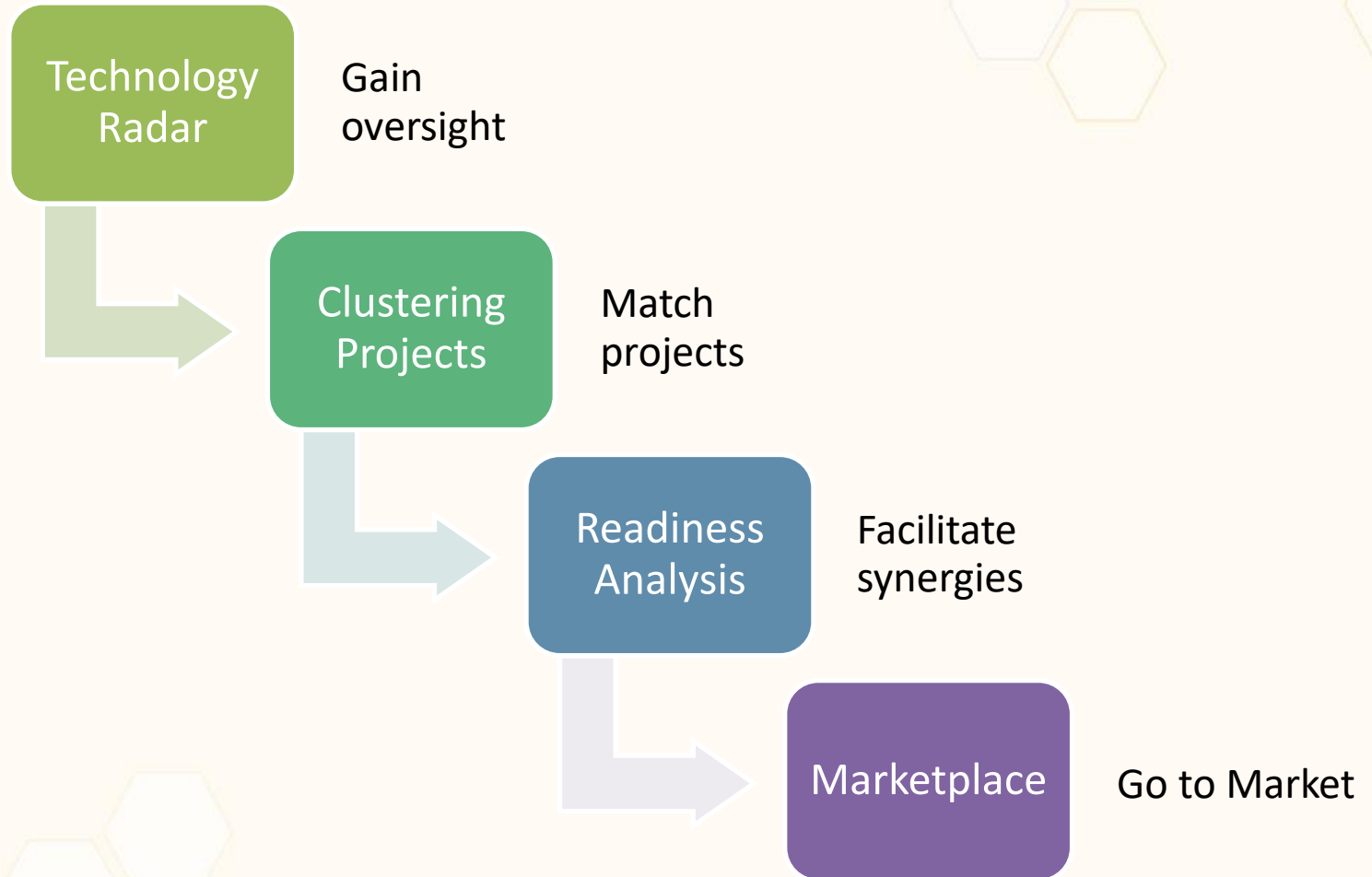
EU H2020 Cybersecurity research

180 projects

Spanning 15 years
(Feb 2008 – Feb 2023)

€765M total budget

Our strategy



Cybersecurity & Privacy research taxonomy

Foundational technical methods & risk management for trustworthy systems in cybersecurity & privacy

Operational Risk and Analytics

Verification and Assurance

Applications and user-oriented services to support cybersecurity and privacy

Secure Systems and Technology

Identity, Behaviour, Ethics and Privacy

Policy, governance, ethics, trust, and usability, human aspects of cybersecurity & privacy.

National and international security and governance

Human Aspects of Cybersecurity

Taxonomy Level 1: Category

Taxonomy Level 2: Cluster

(1) Collecting data

#	A	B	C	D	E	F	G	H	I	J	K	L	M
#	Project	RCN	Call	Type	Start	End	Budget	Title	Teaser	Project URL	Funding Body link	Project URL (NEW WEBSITE)	
1	AARC2	206338	EINFRA-22-2016	RIA	May 2017	Apr 2019	€2,999,893	Authentication and Authoris	The goal of AARC2 is to de	https://aacr-project.eu	http://cordis.europa.eu/project/rcn/206338_en.html	https://cyberwatching.eu/pro	
2	ABC4Trust	97048	ICT-2009.1.4	CP	Nov 2010	Feb 2015	€13,063,511	Attribute-based Credentials	The number of	https://abc4trust.eu/	http://cordis.europa.eu/project/rcn/97048_en.html	https://cyberwatching.eu/pro	
3	ADDPRIV	98125	SEC-2010.6.5-2	CP	Feb 2011	Mar 2014	€4,087,801	Automatic Data relevancy	ADDPRIV proposes novel	http://www.addpriv.eu	http://cordis.europa.eu/project/rcn/98125_en.html	https://cyberwatching.eu/pro	
4	AEGIS	21028	DS-05-2016	CSA	May 2017	Apr 2019	€744,263	Accelerating EU-US DialoG	AEGIS aims to strengthen	http://aegis-project.org	http://cordis.europa.eu/project/rcn/210218_it.html	https://cyberwatching.eu/pro	
5	ANASTACIA	207199	DS-01-2016	RIA	Jan 2017	Dec 2019	€5,420,209	Advanced Networked Agent	The main objective of the A	http://www.anastacia.eu	http://cordis.europa.eu/project/rcn/207199_en.html	https://cyberwatching.eu/pro	
6	ARIES	202675	FCT-09-2015	RIA	Sep 2016	Feb 2019	€2,247,003	reliAble euRoepan Identity	ARIES main goal is to deliv	http://aries-project.eu	http://cordis.europa.eu/project/rcn/202675_en.html	https://cyberwatching.eu/pro	
7	ARMOUR	199076	ICT-12-2015	RIA	Feb 2016	Jan 2018	€1,999,559	Large-Scale Experiments	The Internet-of-Things	http://www.armour-pr	http://cordis.europa.eu/project/rcn/199076_en.html	https://cyberwatching.eu/pro	
8	ASAP	105356	ERC-AG-PE6	ERC-AG	Oct 2012	Sep 2018	€2,499,041	Adaptive Security and	With the prevalence of	http://cordis.europa.eu/project/rcn/105356_en.html	http://cordis.europa.eu/project/rcn/105356_en.html	https://cyberwatching.eu/pro	
9	ATENA	98125	DS-03-2015	IA	May 2016	Apr 2019	€8,111,938	Advanced Tools to assEss	Over recent years, Industri	https://www.atena-h2	http://cordis.europa.eu/project/rcn/202699_en.html	https://cyberwatching.eu/pro	
10	BEACON	194143	ICT-07-2014	RIA	Feb 2015	Jul 2017	€3,570,250	Enabling Federated Cloud	Cloud federation enables	http://www.beacon-pr	http://cordis.europa.eu/project/rcn/194143_en.html	https://cyberwatching.eu/pro	
11	BIOSEC	90991	FP7-PEOPLE-IOF-2008	MC-IOF	Mar 2009	Feb 2012	€214,655	BIOSEC: Security and	Nowadays, there are over	http://cordis.europa.eu/project/rcn/90991_en.html	http://cordis.europa.eu/project/rcn/90991_en.html	https://cyberwatching.eu/pro	
12	C3ISP	202687	DS-04-2015	IA	Oct 2016	Sep 2019	€5,000,045	Collaborative and Confidenti	C3ISP mission is to define	http://www.c3isp.eu	http://cordis.europa.eu/project/rcn/202687_en.html	https://cyberwatching.eu/pro	
13	CANVAS	202697	DS-07-2015	CSA	Sep 2016	Aug 2019	€1,569,125	Constructing an Alliance for	The growing complexity of	https://canvas-projec	http://cordis.europa.eu/project/rcn/202697_en.html	https://cyberwatching.eu/pro	
14	certMILS	207195	DS-01-2016	IA	Jan 2017	Dec 2020	€5,616,544	Compositional security certifi	certMILS develops a secur	https://certmils.eu/	http://cordis.europa.eu/project/rcn/207195_en.html	https://cyberwatching.eu/pro	
15	CHORevOLUTION	98125	ICT-09-2014	RIA	Jan 2015	Dec 2017	€3,057,549	Automated Synthesis of	The Future Internet (FI)	http://www.chorevolu	http://cordis.europa.eu/project/rcn/194161_en.html	https://cyberwatching.eu/pro	
16	CIPSEC	202692	DS-03-2015	IA	May 2016	Apr 2019	€7,017,235	Enhancing Critical Infrastruc	In recent years, the majorit	http://www.cipsec.eu	http://cordis.europa.eu/project/rcn/202692_en.html	https://cyberwatching.eu/pro	
17	CITADEL	202704	DS-03-2015	IA	Jun 2016	May 2019	€6,065,267	Critical Infrastructure Protec	Critical infrastructures (CI)	http://www.citadel-pr	http://cordis.europa.eu/project/rcn/202704_en.html	https://cyberwatching.eu/pro	
18	CLARUS	194136	ICT-07-2014	RIA	Jan 2015	Dec 2017	€4,193,548	A FRAMEWORK FOR	Although cloud computing	http://clarussecure.eu	http://cordis.europa.eu/project/rcn/194136_it.html	https://cyberwatching.eu/pro	
19	CloudSocket	194235	ICT-07-2014	IA	Jan 2015	Dec 2017	€4,084,850	Business and IT-Cloud	Business and IT	https://site.cloudsock	http://cordis.europa.eu/project/rcn/194235_en.html	https://cyberwatching.eu/pro	
20	CloudTeam	194223	ICT-07-2014	IA	Mar 2015	Feb 2017	€2,088,852	Collaborative Software	CloudTeams will be a	https://www.cloudtea	http://cordis.europa.eu/project/rcn/194223_en.html	https://cyberwatching.eu/pro	
21	COCKPITCI	102078	SEC-2011.2.5-1	CP-FP	Jan 2012	Dec 2014	€4,338,494	Cybersecurity on SCADA:	The protection of the	http://cordis.europa.eu/project/rcn/102078_en.html	http://cordis.europa.eu/project/rcn/102078_en.html	https://cyberwatching.eu/pro	
22	COEMS	205937	ICT-10-2016	RIA	Nov 2016	Oct 2019	€3,961,083	Continuous Observation of E	The ability to observe the ir	https://www.coems.eu	http://cordis.europa.eu/project/rcn/205937_en.html	https://cyberwatching.eu/pro	
23	COLA	206078	ICT-06-2016	IA	Jan 2017	Jun 2019	€4,238,580	Cloud Orchestration at the L	SMEs and public sector org	https://project-cola.eu	http://cordis.europa.eu/project/rcn/206078_en.html	https://cyberwatching.eu/pro	
24	COMPACT	210223	DS-02-2016	IA	May 2017	Oct 2019	€4,283,480	Competitive Methods to pro	Cyber threats are the most	https://www.compact	http://cordis.europa.eu/project/rcn/210223_en.html	https://cyberwatching.eu/pro	
25	CONSENT	94079	SSH-2009-3.2.1.	CP-FP	May 2010	Apr 2013	€3,105,260	Consumer sentiment	One of the key changes in	http://consent.law.mj	http://cordis.europa.eu/project/rcn/94079_en.html	https://cyberwatching.eu/pro	
26	CREDENTIAL	194869	DS-02-2014	IA	Oct 2015	Sep 2018	€6,886,660	Secure Cloud Identity	With increasing mobility	https://credential.eu/	http://cordis.europa.eu/project/rcn/194869_en.html	https://cyberwatching.eu/pro	
27	CROSSMINER	206182	ICT-10-2016	RIA	Jan 2017	Dec 2019	€4,519,008	Developer-Centric Knowledg	Recent reports state that th	https://www.crossmin	http://cordis.europa.eu/project/rcn/206182_en.html	https://cyberwatching.eu/pro	
28	CryptoCloud	185411	ERC-AG-PE6	ERC-AG	Jun 2014	May 2019	€2,168,261	Cryptography for the Cloud	Many companies have alre	http://cordis.europa.eu/project/rcn/185411_en.html	http://cordis.europa.eu/project/rcn/185411_en.html	https://cyberwatching.eu/pro	
29	CS-AWARE	210224	DS-02-2016	IA	Sep 2017	Aug 2020	€4,648,363	A cybersecurity situational a	Cybersecurity is one of tod	https://cs-aware.eu/	http://cordis.europa.eu/project/rcn/210224_it.html	https://cyberwatching.eu/pro	
30	CYBECO	210232	DS-04-2016	RIA	May 2017	Apr 2019	€1,983,510	Supporting Cyberinsurance	CYBECO will research, dev	https://www.cybeco.e	http://cordis.europa.eu/project/rcn/210232_it.html	https://cyberwatching.eu/pro	
31	CyberWiz	200381	DRS-17-2014	SME-2	Sep 2015	Aug 2017	€2,279,375	Cyber-Security	The ICT environments of	https://www.cyberwiz	http://cordis.europa.eu/project/rcn/200381_en.html	https://cyberwatching.eu/pro	
32	CYCLONE	194262	ICT-07-2014	IA	Jan 2015	Dec 2017	€3,843,602	Complete Dynamic	Application service	http://www.cyclone-pa	http://cordis.europa.eu/project/rcn/194262_en.html	https://cyberwatching.eu/pro	
33	CYRail	206014	S2R-OC-IP2-01-2015	Shift2Rail-	Oct 2016	Sep 2018	€1,498,150	Cybersecurity in the	Railway infrastructures	http://cyrail.eu	http://cordis.europa.eu/project/rcn/206014_en.html	https://cyberwatching.eu/pro	
34	DAPPER	185683	FP7-PEOPLE-2013-CIG	MC-CIG	Apr 2014	Mar 2018	€100,000	"Doing Anonymization	"There is currently a	http://cordis.europa.eu/project/rcn/185683_en.html	http://cordis.europa.eu/project/rcn/185683_en.html	https://cyberwatching.eu/pro	
35	DECODE	206387	ICT-12-2016	RIA	Dec 2016	Nov 2019	€4,987,674	Decentralised Citizens Own	Today's Internet is becomin	https://www.decodep	http://cordis.europa.eu/project/rcn/206387_en.html	https://cyberwatching.eu/pro	
36	DEFENDER	210231	CIP-01-2016-2017	IA	May 2017	Apr 2020	€8,859,938	Defending the European En	Critical Energy infrastruc	http://cordis.europa.eu/project/rcn/210231_it.html	http://cordis.europa.eu/project/rcn/210231_it.html	https://cyberwatching.eu/pro	

Gain oversight: Technology Radar

CYBERWATCHING RADAR DATA - SPRING 2019

Secure Systems

Verification & Assurance

Operational Risk

Identity & Privacy

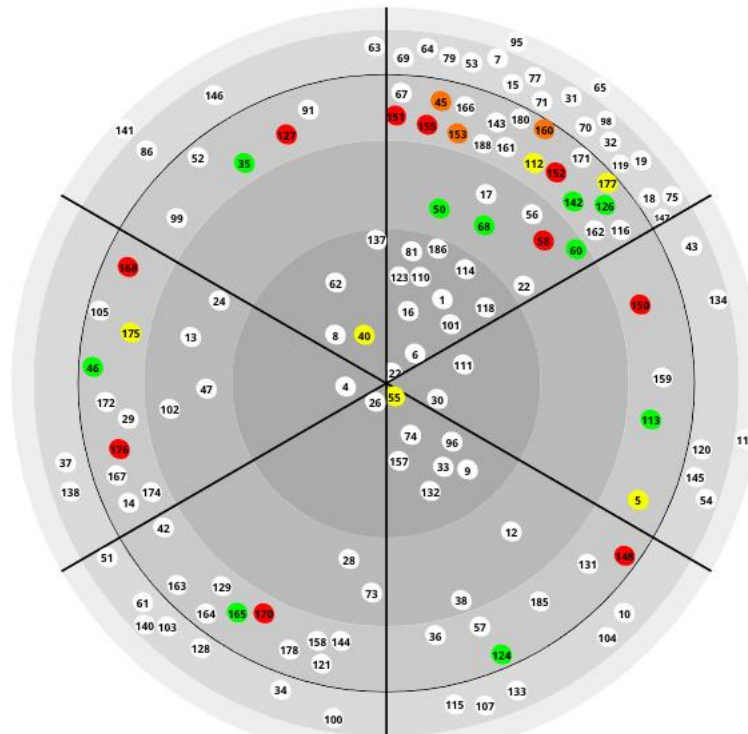
Cybersecurity Governance

Human Aspects

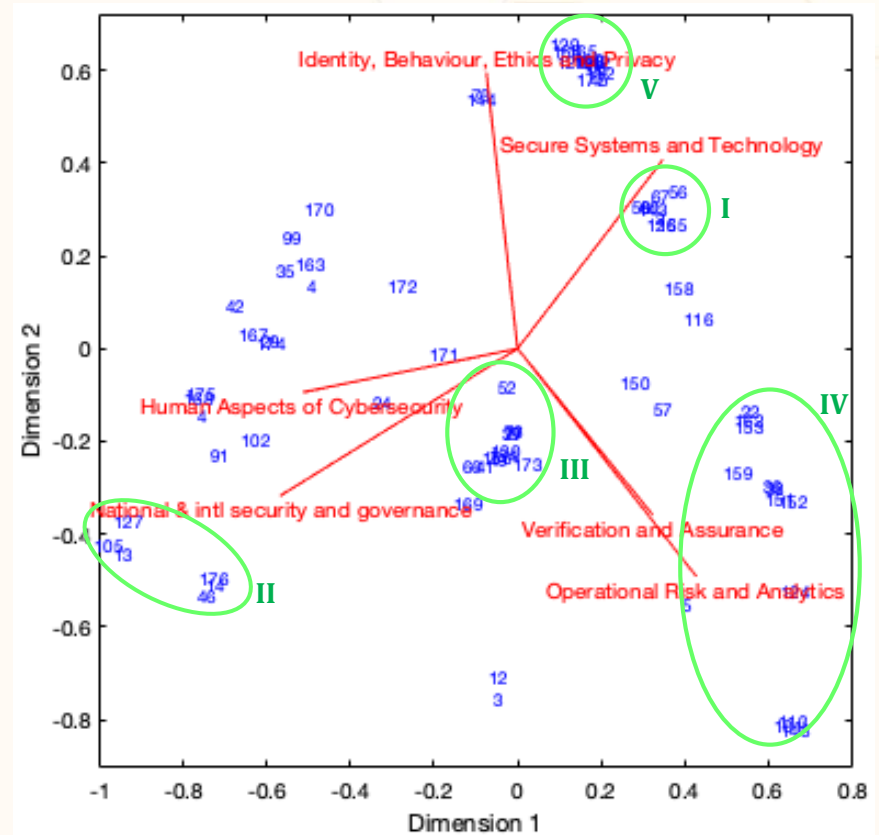
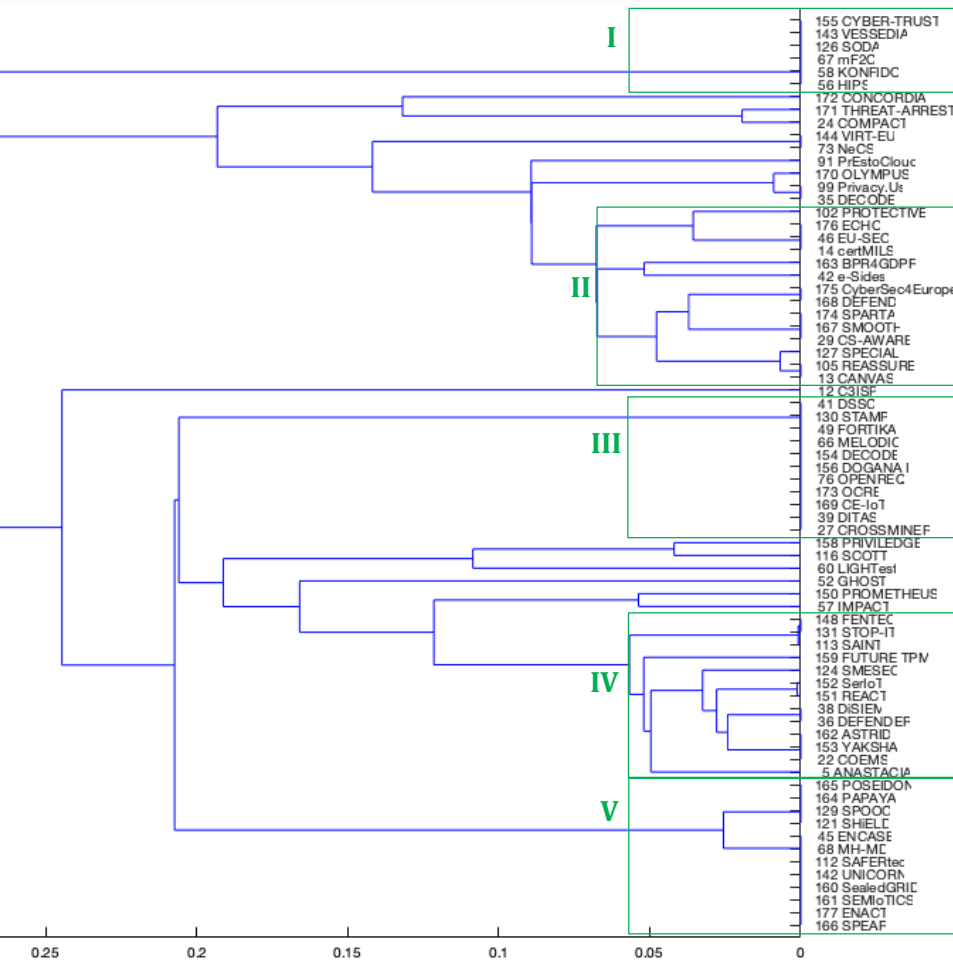
Choose a sheet to populate radar

[Spring 2019](#) [Autumn 2018](#)

Search



Match projects: Clustering



The Cyber Security Challenges in the IoT Era

- 11:00 -11:05 - Introduction and Cyberwatching.eu Clustering activities, **Michel Drescher, Oxford University, Cyberwatching.eu**
- 11:05 – 11: 11:05 - 11:15 - Using IoT platform security with mF2C to develop scalable secure edge-to-cloud applications - **Dr. Jens Jensen, principal scientist, UKRI-STFC, mF2C**
- 11:15 - 11:25 - The LSPs programme: privacy and security in IoT - **Dr. Pasquale Annicchino, Archimede Solutions SARL, CREATE-IoT**
- 11:25 - 11:30 - Q&A
- 11:30 - 11:40 – ANASTACIA H2020 project: Dynamic security management of disitributed IoT/CPS scenarios, **Dr Antonio Skarmeta, Professor Universidad de Murcia scientific coordinator H2020 ANASTACIA**
- 11:40 - 11:50 - The legal challenges and opportunities of IoT - **Anastasia Botsi,ICT Legal, Cyberwatching.eu**
- 11:50 - 11:55 - Q&A
- 11:55 - 12:00 - Closing Remarks



Thank-you

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