

Call identifier: H2020-ICT-2016 - Grant agreement no: 732907

Topic: ICT-18-2016 - Big data PPP: privacy-preserving big data technologies

Deliverable D10.6 Second dissemination event

Due date of delivery: April 30th, 2019

Actual submission date: April 30th, 2019

Start of the project: 1st November 2016 Ending Date: 31st October 2019

Partner responsible for this deliverable: Lynkeus

Version: 1.2



Document Classification

Title	Second dissemination event
Deliverable	D10.6
Reporting Period	M19-M36
Authors	Anna Rizzo
Work Package	10
Security	PU
Nature	R
Keyword(s)	Dissemination, communication, event, demo, public, presentation

Document History

Name	Remark	Version	Date
Anna Rizzo	First version with content draft	1.0	12/04/2019
Anna Rizzo	Second version, with integrations from CNR	1.1	17/04/2019
Anna Rizzo	Third and final version, after internal and Consortium's review	1.2	30/04/2019

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Introduction

The present deliverable is meant to report about the second of the two major dissemination events organised by the consortium to present the project and demo its prototype system to general public and peers in the research, clinical and industry sectors. Besides the EU Digital Assembly (Sofia, 25-26 June 2018), reported in D10.3 - First dissemination event as 'first dissemination event' for being the first public demo of the MHMD system, another major opportunity for project dissemination was offered by ICT 2018 (Vienna, 4-6 December 2018), the research and innovation participatory event organised by the European Commission and the Austrian Presidency of the Council of the European Union, which attracted about 4,800 visitors among science community members, policymakers and citizens. The report will thus detail the event and Consortium participation, including a project booth – including posters, brochures and a live system demo - and the three networking sessions organised within the event, along with other dissemination and outreach activities.

Along with that, the report will also give an account of the other minor dissemination events organised/attended by the whole consortium or its partners (individually) in the second reporting period (M19-M36), as well as planned for the next months until the end of the project. These include research conferences and public networking events in the field of health IT, personal data, AI, blockchain and ICT for health, organised at institutional or industry level. There, Project Coordinator and other Consortium partners have presented the project or its emerging innovations (e.g., synthetic data, homomorphic encryption, etc.) with relevant academic communities, industry stakeholders, policy makers and mass media representatives, chaired and animated sessions on relevant themes (e.g., personal data, health data, blockchain in health, ICT for health), and posed the base for further cross-fertilisation, feedback gathering from peers in the clinical and IT community and possible exploitation routes for the future project sustainability.

1 ICT 2018: Imagine Digital - Connect Europe











When	4-6 December 2018	Where	Vienna, Austria	Venue	Austria Center			
Theme	Imagine digital – connect Europe							
Details	This research and innovation event focused on the European Union's priorities in the digital							
	transformation of society a			-				
	transformation to share their	experienc	e and vision of Euro	ope in the	digital age			
Organisers	European Commission and th	e Austrian	Presidency of the	Council of	the European Union			
Who	Edwin Morley-Fletcher, David	le Zaccagn	ini, Mirko De Malde	è, Anna Riz	zo, Lynkeus			
	Lucian Itu, Cosmin Nita, Anan	naria Viziti	u, UTBV					
	Yannis Ioannidis, Minos Garo	falakis, Ath	nena RC					
	Rudolf Mayer, SBA							
What	Exhibition booth: My	yHealthMy	Data (MHMD)					
	 Networking sessions 	::						
	1. Blockchain	application	ns in healthcare dat	a manage	ment and exchange			
	Realizing the promise of in-silico medicine: challenges and opportunities in clinical implementation							
	3. Secure genomic data sharing with encryption-based privacy preserving tools							
Dissemination	Website, Twitter, Public Science community members, policymakers, fellow ICT-							
	Facebook, LinkedIn enthusiasts, citizens							
Event material	<u>Website</u>							

1.1 The event

ICT 2018 is the European Commission's flagship event on research, innovation and digitalisation. It focuses on the European Union's strategy and programmes regarding the digital transformation of society, economy and industry, and represents an opportunity for people involved in Europe's digital transformation to share their experience and vision. This year, the event was articulated through four main components: (1) conferences, (2) exhibitions, (3) networking opportunities and an (4) innovation and start-ups forum.

1. The **conference** programme featured debates around the EU's digital policy with 6 plenary sessions on topics such as Artificial Intelligence, Next Generation and Digital Skills Internet, Performance Computing. Influential speakers from policy circles and public bodies, academia, industry, civil society and industry highlighted their perspectives and priorities, and discussed how each can contribute to the successful



digital transformation of Europe. The event also hosted IMAGINE18, the annual conference of the Austrian ICT community, which revolved around the theme "Technologies bridging Generations" with digital experts, policy makers and researchers, together with young students, reflecting on future scenarios and developments in the field of ICT and its effects on daily life.

2. The event included a 5.000 m² exhibition area showcasing the best accomplishments and pioneering results, innovative products and services emerging from EU-funded research and innovation actions, international cooperation and Austrian initiatives, to connect today's research and innovation with visions for the future. The whole spectrum of digital and ICT topics was covered, with more than 100 exhibits



ranging from digital society to transforming industry and economy, and the most recent technological advancements, giving them the opportunity to find investors, buyers or business partners to make their results market-ready. The ICT 2018 exhibition included, among others, the following main areas:

- 1) **General Exhibition**, a major exhibition of EU-funded research and innovation projects from current and previous framework programmes around three themes: Inspiring a digital society; Creating networks and technology; and Transforming industry and economy.
- 2) International Cooperation (INCO) Village, displaying successful international collaborations with the EU's key partners from around the world (South Korea, Japan, Brazil, South Africa and other international partners);

- 3) **Innovation and Start-ups Village**, promoting EU-funded start-ups and displaying innovative services or products that were looking for opportunities to enter the market;
- 4) **European Commission (EC) Village**, providing thorough information about EU flagship initiatives on telecom, research and innovation, open science and more;
- 5) **The Austrian Village**, hosting an exhibition with highlights from the Austrian research community, covering a broad range of ICT applications in economy and society.
- number of offline and online networking opportunities were offered for participants to meet and engage with the academic and research community, decision-makers, as well as business representatives. Among them, thematic networking sessions were organised by stakeholders attending to boost exchanges between participants, in the form of informal group discussions that seek brainstorming and active interactions, in view of developing new



partnerships for research and innovation. Also, a Face2Face brokerage event composed of short, prearranged meetings, provided an additional way of networking and possibly meeting potential cooperation partners at the event.

4. The Innovation and Startups forum has been a dedicated conference with workshops, innovation exhibits and marketplace, to explore and debate the development and use of disruptive technologies for economic growth, human development and addressing societal challenges. The forum showcased cuttingedge innovations from across Europe and



brought together start-ups, innovators, policy makers, governments and investors for policy dialogues, workshops and collaboration.

1.2 MHMD at ICT2018

The MHMD consortium took part in ICT2018 with various initiatives, including an exhibition booth and two networking sessions, along with the participation of its members to several other conference meetings, networking and outreach activities. The participation of MHMD to the overall event as well as its specific initiatives were widely showcased through the project website and social media accounts, before as well as with live feeds during the three days of the event and echoed by relevant channels.

1.2.1 The exhibition booth

The MHMD exhibition booth was held within the *Inspiring a Digital Society* exhibition area (Hall X3, stand i10), based on the indicated keywords *eHealth*, *AI*, *big data*, *blockchain*. The exhibition focus topic, as indicated in the application and exhibition catalogue, was described as follows.

Taking back control of your health data

Medical data is generally stored in separate locations and is not always easily accessible to patients and research institutions. It can be vulnerable to security breaches and identity theft and at the same time scientists do not always have access to data for biomedical research and for developing new treatments. My Health My Data (MHMD) aims to use blockchain technology to enable medical data to be stored and transmitted safely and effectively. MHMD project is centred on the connection between organisations and individuals. It encourages hospitals to start making anonymised data available for open research, while prompting citizens to become the ultimate owners and controllers of their health data.

The booth included several posters (standard 50x70 and roll-up banners) focusing on (1) general project overview, (2) legal aspects (i.e., novelties introduced by the GDPR and the MHMD compliance model), for GDPR, (3) MHMD stakeholders and the system data flow, (4) user interfaces for individuals' onboarding and consent management through the MHMD app. Also, the booth was provided with a video screen, which was used by the PC and his team execute the live demo of platform and, between demoes, for a general video explaining MHMD main features and tools, displayed in a loop.



The live demo offered an end-to-end demonstration of the data workflow from the perspective of an hospital (with data registration and setting of access permissions) and a researcher (browsing the catalogue and requiring data), showcasing the data catalogue, the blockchain explorer, the web interfaces, and the mobile app. In this way, the Consortium had the chance to communicate the overall project objectives and intermediate results, as well as give a general view of its working system in front of a variety of stakeholders from industry, SMEs and academia, EC and mass media representatives.



Among other projects, MHMD was given a space by the EC press office, in the form of an interview and live demo of the system by the PC. Besides, another representative from the Project Coordinator's team was invited to a live radio webcasting hosted by the Digital Single Market Press Room, with the participation of MP Eva Kaili and the head of Unit of the Digital Innovation and Blockchain Peteris Zilgalvis.



1.2.2 Networking sessions

The PC and his team also organised two networking sessions, aimed at presenting MHMD-related innovation and boost the public debate on relevant themes such as healthcare blockchain, AI, and privacy preserving technologies, also in view of fostering potential collaboration for the establishment of research consortia or public-private partnerships.

1.2.2.1 Networking session "Blockchain applications in healthcare"

The networking session on blockchain application in healthcare was aimed at presenting the MHMD technological approach and establish potential collaborations with industry members and enforce connection with other relevant communities, through an open debate on standards and remaining challenges for the widespread adoption of blockchain solutions in the health domain. The session was promoted through social media and printed leaflets distributed before the event. As a result, the session was very well received, allowing to fill the room (+100 seats).



Networking session: Blockchain applications in healthcare data management and exchange

Room M1, 05/12/2018 (10:00-10:45)

The potential of the blockchain technology in the healthcare domain has been recognized by several stakeholders around the world, with applications spanning from health data exchange and identity moinagement to drugs supply chain, from insurance to personalized medicine. The session is dedicated to discussing potential applications, various possible models and relevant technological implementations and challenges for making the best use of DLTs in the health domain.

In particular, the networking session will focus on:

- new models of data mobilisation and relevant consent and permission management, looking into the experience of the EU-funded project MyHealthMyData;
- innovative approaches for data self-sovereignty and patient-centric distributed data analytics, discussing the system implemented by the Swedish company Carechain.io:
- the alternative DLTs approach presented by Hedera Hashgraph and its innovative consensus protocol, capable of performing up to 200.000 transactions per second without energy-hungry computational processes, and its potential impact on Medical IoT;
- 4) the innovative Natural Blockchain Language, implemented at the Blockchain Knowledge Foundation, which allows to "translate" the formal natural language of a given agreement into an error-free smart contract.

The session will be organised as follow

- 10:00 10:25: quickfire presentations of the 4 panellists;
- 10:25 10:45: panel discussion with the involvement of the attendees

SPEAKERS

Mirko De Maldè, Lynkeus (Moderator)

Edwin Morley-Fletcher, Lynkeus, Coordinator of MyHealthMyData

Johan Sellström, Co-founder at CareChain.io

Arnoud W. Berghuis, Founder of the Blockchain Knowledge Foundation

1.2.2.2 Networking session "Secure genomic data sharing with encryption-based privacy preserving tools"

The session was organised taking inspiration from the European Union's <u>Declaration on cross-border access to genomic databases</u>, signed by 13 European countries for an enhanced sharing of genomic data to improve understanding and prevention of disease, development of personalised treatments – including targeted drugs – particularly for rare diseases, cancer and brain related diseases. The focus of the session, i.e., secure and privacy preserving genomic data sharing, allowed to pursue two objectives: on the one hand, to present the security and privacy-preserving tools developed within MHMD, i.e., the Secure Multi-Party Computation (Athena RC) and the Homomorphic Encryption (UTBV) protocols; on the other, to illustrate the potential of using synthetic data in genomics. Besides promoting the session via social media and a print-based leaflet, the session received

Secure genomic data sharing with encryption-based privacy preserving tools

Room 2.95, 06/12/2018 (11:30-12:15)

Making at least 1 Mil genomes accessible by 2022 is the target set by the EU in the Declaration on cross-border access to genomic databases (10 April 2018). To pinpoint disease genetic bases, large datasets have to be gathered through vast collaborative efforts. Meanwhile, genetic data represent very sensitive information carrying high risk of identification, needing special protection.

To this end, different types of privacy-preserving (PP) methods can be put in place to avoid disclosure, such as Al-based homomorphic encryption (HE) or secure multi-party computation (SMC), which allow distrustful parties to perform computation directly on encrypted data or in a distributed manner, while remaining oblivious to the input data and the intermediate results.

Another approach is based on generating synthetic data, artificial data generated by machine learning algorithms through recursive conditional parameter aggregation. While retaining significant information, these data do not belong by definition to any existing person, which puts them out of the scope of the GDPR and make them freely tradeable. Synthetic replicas of gene expression, single nucleatide polymorphism, copy number variation or protein-protein/gene-gene interaction data are possible ways for dealing with the genome-sharing challenge.

SPEAKERS

Edwin Morley-Fletcher, Lynkeus
Davide Zaccagnini, Lynkeus
Lucian Itu, Transylvania University of Brasov
Minos Garofalakis, Athena Research and Innovation Centre

increased visibility thanks to the <u>Innovation Radar Prize 2018</u>, an EC initiative to identify high-potential innovations and innovators in EU-funded research and innovation projects. The Prize featured 5 categories, namely (1) Best Young SME, (2) Industrial & Enabling Tech, (3) Best early stage innovation, (4) Tech for Society and (5) Excellent Science 2018. Among others, Transylvania University of Brasov (UTBV) was selected among the Finalists of the <u>Industrial & Enabling Tech</u> category, for its <u>Deep Learning-based model for homomorphic encryption</u> developed within MHMD. Despite not being awarded the prize in favour of New Infrared Technologies (NIT), the Innovation Radar represented an important occasion to showcase project results and animate the session, thanks to the presence of Lucian Itu and his team (Cosmin Nita, Anamaria Vizitiu).

Innovation Radar Finalists							
Best early stage innovation	Bionicia Sygic Xlab Sintef						
Industrial & Enabling Tech	Transilvania University of Brasov New Infrared Technologies GlassUp Orbe						
Best Young SME	Spazio Dati Multiwave Technologies Energica Motor InoSens						
Excellent Science	Fresnel Institute AvantiCell Science Technical University of Denmark University of Zagreb						
Tech for Society	Friedrich-Schiller-University JENA Gr3n University of Iceland Ifinity						
TO THE	#InnovationRadar @ICTInnovEU bit.ly/InnoRadarEU						

2 Other dissemination events (M19-M36)

2.1 Dissemination events in Y2 (M19-M24)

2.1.1 eHealth2018



When	8-9 May 2018	Where	Vienna, Austria	Venue	Schonbrunn Palace	
Theme	12th Annual Conference on H	ealth Infor	matics meets eHea	lth		
Details	The event provides a platform for researchers, practitioners, decision makers and vendors to discuss innovative health informatics and eHealth solutions so as to improve the quality and efficiency of health care.					
Organisers	Austrian Institute of Technology (AIT), the Austrian Working Group of Health Informatics and eHealth					
Who	Peter Kieseberg, SBA					
What	Presentation on the theme "Trusted data sharing enabled by blockchain technology", with mention to MHMD					
Dissemination	- Public Academia, clinicians, decision makers					
Event material	<u>Website</u>					



2.1.2 Big Data Value Meet-up Sofia



When	14-16 May 2018	Where	Sofia, Bulgaria	Venue	-	
Topics	Digital health, ICT for health					
Details	The event has the twofold ob	jective of	strengthening collal	borations	among community members	
	and increasing the visibility ar	nd awaren	ess about the PPP ir	n East Euro	ppe in general and Bulgaria in	
	particular					
Organisers	Big Data Value Association					
Who	Edwin Morley-Fletcher, Lynke	eus				
What	Presentation of the progress status of MHMD, presentation and networking					
Dissemination	Website, Twitter, Facebook Public Industry and SME, policy makers					
Event material	<u>Website</u>					

2.1.3 HIMSS Europe 18 and Health 2.0 Conference



When	27-29 May 2018	Where	Sitges, Spain	Venue	Melia Hotel		
Topics	Digital health, ICT for health						
Details	The joint HIMSS Europe and Health 2.0 aims to gather digital health professionals from Europe and overseas to explore international innovations in consumer health, patient care, digital healthcare technologies, big data and analytics, AI and wearable tech, to initiate meaningful conversations and to create digital health marketplaces						
Organisers	HIMSS Europe						
Who	Mirko DE Maldè, Lynkeus						
What	Speaker within two sessions: <i>Playing with blockchain,</i> giving an introduction to the blockchain technology through a puzzle game, and <i>Personal Health Record (PHR) initiative session</i> "Empowering Patients and Citizens to Become CEOs of their Own Health", with presentation of MHMD, exploring the emerging landscape of personal health record initiatives, particularly what they promise and how are they delivering on those promises						
Dissemination	Website, Twitter, Facebook Public Clinicians, industry and SME, policy makers, patients' associations						
Event material	<u>Website</u>						

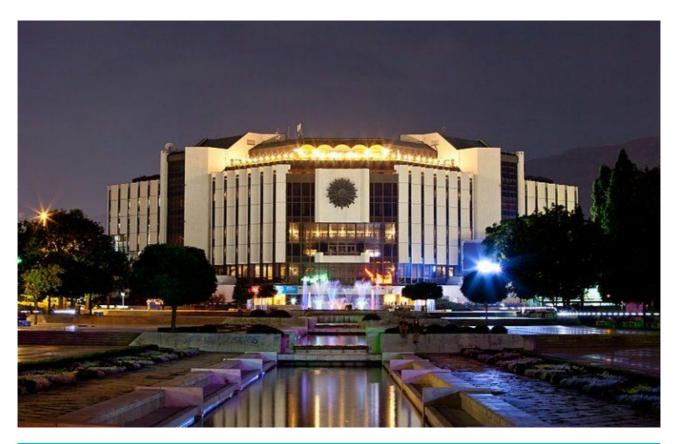
2.1.4 eHealthWorld Monaco 2018



When	31 May – 1 June 2018	Where	Principality of	Venue	Melia Hotel		
			Monaco				
Topics	Digital health, ICT for health						
Details	eHM2018 was organised by	healthcar	e professionals of	all specia	lities with the objective of		
	achieving constant progresses in the taking charge of patients, diagnostics, treatment and prevention with the support of emerging ICT applications. eHM2018 aimed to boost cooperation between clinicians and patients, MedTech and Drug Tech industry, payers and regulators.						
Organisers	Association e-HealthWorld M	Association e-HealthWorld Monaco					
Who	David Manset, gnùbila						
What	Speaker within the session "E	dhec: enjo	y business in eHeal	th", in Salle	e Atelier (31 May, 14:15).		
Dissemination	Website, Twitter, Facebook Public Clinicians, industry and SME, policy makers, patients'						
			associations				
Event material	Website						



2.1.5 Digital Assembly 2018



When	25-26 June 2018	Where	Sofia, Bulgaria	Venue	National Palace of Culture	
Topics	Digital transformation in Euro	ре				
Details	The event represents a forum for stakeholders to debate, take stock and look ahead at how Europe and its partners around the world are preparing for the main digital policy challenges ahead, and offers the opportunity for dialogue on their potential benefits for citizens and businesses					
Organisers	European Commission, Bulgarian Presidency of the Council of the European Union					
Who	All consortium					
What	MHMD booth and live demo					
Dissemination	Website, Twitter, Facebook Public EU member state representatives and policy makers upon invitation					
Event material	<u>Website</u>					

2.1.6 Malta Blockchain Summit 2018



When	1-2 November 2018	Where	St. Julian's,	Venue	InterContinental Arena	
			Malta			
Topics	Blockchain applications in a	variety o	of fields including	Health, E	ntertainment, Government,	
	Banking, Payments and Finte	ch				
Details	The Summit represented a melting pot for global influencers in technology, civil society, democracy promotion and innovation. It focused on world-changing potential applications of the Blockchain across multiple verticals, including, but not limited to, Health, Entertainment, Government, Banking, Payments and Fintech, and more. The summit reached 4000 delegates worldwide and featured a Hackathon and an ICO pitch, connecting investors with ICOs.					
Organisers	Maltese Government					
Who	Mirko de Maldè, Lynkeus					
What	Speaker in a blockchain in he	althcare-re	elevant sessions			
Dissemination	-	Public	Global influencers	in techno	logy, civil society,	
			democracy promo	tion and i	nnovation	
Event material	Website					

2.1.7 International Data Week 2018 (IDW 2018)













When	5-8 November 2018	Where	Gaborone,	Venue	Botswana Open Science	
			Botswana		and Open Data Forum	
Topics	"The Digital Frontiers of Glob	al Science'	,			
Details	IDW 2018 brought together data scientists, researchers, industry leaders, entrepreneurs, policymakers and data stewards from all disciplines and geographies across the globe. Coorganized by the ISC World Data System (WDS), the ISC Committee on Data for Science and Technology (CODATA), the Research Data Alliance (RDA), University of Botswana (UoB) and the Academy of Science of South Africa (ASSAf), IDW 2018 combined the 12 th RDA Plenary Meeting, the bi-annual meeting of the research data community, and SciDataCon 2018, the scientific conference addressing the frontiers of data in research. In a hyper-connected world where the Internet is pervasive and web technologies are driving major changes in our lives, research has become more than ever before digital and international. With the theme of 'The Digital Frontiers of Global Science', this landmark event was a rich week of science and data, featuring world renowned keynote speakers, plenary panels and discussions, and the presentation of high quality					
Organisers	Botswana Open Science and	Open Data	Forum, Research D	ata Alliano	ce	
Who	Edwin Morley-Fletcher, Lynke	eus (remot	e participation)			
What	Presentation on homomorph	ic encrypti	on technologies			
Dissemination	Twitter	Public	Data scientists, re entrepreneurs, po		industry leaders, s and data stewards	
Event material	<u>Website</u>					

2.1.8 Blockchain for Development: The Future Now



When	7 November 2018	Where	Cluj-Napoca,	Venue			
			Romania				
Topics	Blockchain innovation						
Details	The Blockchain for Development: The Future is Now Forum featured speakers coming from diverse fields to discuss a wide range of topics including decentralized data, smart contracts, health records storage, digital identity, social credits, international remittances, self-sovereign identity and showcased blockchain-based projects tackling common international development issues such as international aid transparency and traceability, climate change induced poverty, data loss and data theft, political corruption and others						
Organisers	Development Aid						
Who	Mirko de Maldè, Lynkeus						
What	Speaker						
Dissemination	Witter, Facebook, LinkedIn	Public	blockchain and Dl international orga	T, alongsionizations a	nnovators and influencers in de delegates from and representatives of local kchain for Development		
Event material	<u>Website</u>						

2.1.9 European Big Data Value Forum



When	12-14 November 2018	Where	Vienna, Austria	Venue	Siemens Conference	
					Center	
Topics	Data driven AI for the future	e, "From d	ata protection and	privacy to	fairness and trust: the way	
	forward" – Best practises and	l lessons fr	om the Big Data Va	lue PPP		
Details	The European Big Data Value Forum included keynotes and presentations ranging from cutting-edge industrial applications of Big Data technologies, artificial intelligence, innovative business cases of the data economy, inspiring future visions, and insights on EU policy-making and R&D&I funding in this area. Ideas exchanged at the European Data Forum have an impact on the design of future research and innovation programmes and policy decisions both at the EU and Member States level. This will drive data-driven innovation further and strengthen the European data economy as well as enhancing its positioning worldwide.					
Organisers	Big Data Value Association, e	-Sides				
Who	Edwin Morley-Fletcher, Lynk	eus				
What	Speaker					
Dissemination	Twitter	Public	researchers, techr	nologists, p	oolicy makers, SME and	
			industry represen	tatives		
Event material	<u>Website</u>					

2.1.10Blockchain in Sanità



When	12 November 2018	Where	Rome, Italy	Venue	Istituto Superiore di Sanità		
Topics	Blockchain and public health						
Details	The event offered a scenario	for debatii	ng current experien	ces, poten	tial use cases and remaining		
	challenges for the adoption of	of the bloc	kchain technology	in the hea	lthcare domain, fuelling the		
	debate among researchers, clinicians, technologists, policy makers, industry and citizens.						
Organisers	McCANN HEALTH ITALIA, Istit	McCANN HEALTH ITALIA, Istituto Superiore di Sanità, Cittadinanzattiva, Wired Italy.					
Who	Mirko De Maldè, Lynkeus						
What	Speaker, presentation "L'espe	erienza ital	liana del progetto M	1y Health I	My Data" (transl. "The		
	Italian experience of the My I	Health My	Data project")				
Dissemination	Website, Twitter, Facebook	Public	researchers, clinic	ians, techr	nologists, policy makers,		
			SME and industry representatives, citizens				
Event material	<u>Website</u>						

2.1.11MHMD Blockchain in Healthcare



When	19 November 2018	Where	London, United	Venue	Queen Mary University of	
			Kingdom		London	
Topics	MHMD value proposition for	hospitals				
Details	The meeting was designed to outline the features and potential of the MHMD platform for clinical research and medical care. The meeting illustrated the hospital engagement process, the opportunities for data mobilisation, measures for GDPR compliance, data privacy and security, advantages and caveats of the blockchain technology in healthcare, generation of synthetic data and potential applications in the clinics.					
Organisers	The MHMD consortium					
Who	All consortium representative	es				
What	Open sessions and workshop	s dedicate	d to specific themes	5		
Dissemination	<u>Website</u> , Twitter, Facebook, Eventbrite	Public	Clinicians upon in	vitation		
Event material	Website page, print-based pr	ogram, pre	esentations			

MHMD Blockchain in Healthcare represented the first public meeting specifically dedicated to illustrating the MHMD value proposition for clinical centres. The event was articulated through key sessions devoted to major project themes (*Blockchain in healthcare, GDPR for Data Controllers, secure computing methodologies, privacy-preserving techniques, synthetic data*) and provided solutions, along with workshops dedicated to a more in-depth discussion on the implemented technical solutions by IT researchers, developers, clinicians

and legal experts of the MHMD Consortium. The meeting was held at the presence of all MHMD partners and some additional stakeholders (external clinicians from Policlinico Gemelli Italian Research Hospitals, Queen Mary University London and Great Ormond Street Hospital).

The meeting aimed at presenting a variety of possible value propositions for hospital data providers, including *trusted* data sharing, GDPR compliance, consent management, security and privacy preserving tools, analytics, as well as opportunities for data commercialisation, with the



ultimate objective of tearing down barriers and gathering feedback for overcoming remaining concerns about risks, costs and liabilities of clinical data sharing. Plenary sessions and workshops focused on MHMD-developed tools including *blockchain, privacy preserving tools, synthetic data, and metadata catalogue*, so to make the underlying value clearer and more tangible to an external attendee.

The meeting was introduced by Steffen Petersen (QMUL), while the value propositions were summarised by the Project Coordinator, Edwin Morley-Fletcher. The relevant agenda is reported below.

Attendees showed a great deal of interest for the project and provided fruitful feedback. According to them, the most appealing value proposition represented by the creation of a data sharing trusted environment enabling smoother interaction with commercial partners for access and usage of data. Also, consent management tools via mobile applications, able to simplify interactions with patients when additional consent is needed, were well appreciated.

More generally, the meeting was a success, and attendees expressed their interest in following up the discussion with the involvement of NHS trusts representatives.



2.2 Dissemination events in Y3 (M25-M30)

2.2.1 Atelier Avenir Sante Numérique

INVITATION

Etienne (aniard

président du Fonds Avenir Sante Numérique, à le plaisir de vous inviter à l'atelier



Blockchain et mutualisation des données,

Mardi 15 janvier 2019 de 12h30 à 14h30

When	15 January 2019	Where	Paris, France	Venue	Fondation del'Avenir		
Topics	Blockchain and data sharing						
Details	The objective of the group "Avenir Santé Numérique" at Fondation de l'Avenir is to federate the various players in the social economy, the industrialists concerned by the digital revolution in the field of health and the actors of medical research. In this context, David Manset (Gnùbila) was invited to showcase MHMD within a digital health-dedicated event.						
Organisers	Fondation de l'Avenir						
Who	David Manset, gnùbila						
What	' ''	Speaker, presentation of MHMD with demonstration of the blockchain platform for personal data, GDPR-compliant exchanges					
Dissemination	Twitter Public Healthcare professionals, researchers, industry and SME						
Event material	Website, press releases						

2.2.2 Blockchain Summit Frankfurt 2019



When	26 March 2019	Where	Frankfurt,	Venue	Kap Europa Convention			
			Germany		Center			
Topics	Innovative blockchain develo	pments wi	thin enterprise					
Details	The Blockchain Summit Frankfurt provided a platform to discuss the opportunities of blockchain technology with thought-leaders and industry experts, on sectors including Finance, Insurance, Retail, Supply Chain and Telecoms through intimate roundtables, interactive case studies and panel discussions. Blockchain Summit is the largest dedicated Blockchain for Business event in Europe, focusing on the industries most impacted by blockchain technology.							
Organisers	Nexus							
Who	Mirko de Maldè, Lynkeus							
What	Presentation "Blockchain app	olications ir	n healthcare"					
Dissemination	-	Public	Global influencers	in techno	logy, civil society,			
		democracy promotion and innovation						
Event material	<u>Website</u>							

2.2.3 e-HealthWorld Monaco 2019



When	26-27 March 2019	Where	Principality of	Venue	Hotel Fairmont
			Monaco		
Topics	State of the art and future of	eHealth			
Details	Placed under the high patror	•		•	
	an inventory of technologica				• •
	but also to assess potentia	I advance:	s. It will bring tog	ether nev	v patients (empowerment),
	MedTech and Pharma (drug	Tech) ma	nufacturers, but al	so payers	(insurers and mutuals) and
	regulators. The appointment	is now rec	ognized by both he	althcare pi	rofessionals and industry
	for its high scientific level.				
Organisers	Principality of Monaco				
Who	David Manset, gnùbila				
What	Speaker in the session "e-SAN	NTE ET BLC	CKCHAINS" (26 Ma	rch 2019,	16h30 - 18h00), with the
	presentation "BLOCKCHAINS	ET RGPD"			
Dissemination	Twitter	Public	Healthcare profes	sionals, ph	narmacists, researchers,
			students, patients	, industry	and SME, payers, regulators
Event material	Website, press releases				

2.2.4 RDA 13th Plenary Meeting



When	2-4 April 2019	Where	Philadelphia,	Venue	Loews Hotel Philadelphia,
			Pennsylvania,		Drexel University
			USA		
Topics	"With Data Comes Responsib	ility"			
Details	With the theme, "With Data (Comes Res	ponsibility," P13 exp	olored how	the international, inter- and
	transdisciplinary nature of I	RDA has h	nelped to lay a for	undation 1	for global partnerships and
	addressing responsibility thro	ughout th	e data-lifecycle and	across all	domains. Known for its track
	record of success represente	ed by stro	ng attendance, cor	crete out	comes, and overwhelmingly
	positive meeting satisfaction	and value	for attendees, RDA	Plenaries	are consistently successful in
	facilitating the international	RDA data	community in con	necting da	ta conversations across the
	globe and among all discipline	es.			
Organisers	Research Data Alliance-Unite	d States in	partnership with D	rexel Univ	ersity
Who	Mirko de Maldè, Davide Zacc	agnini, Luc	dovica Durst, Lynkeı	ıs	
What	Mirko De Maldè - Chair of "Bl	lockchain i	n healthcare" Work	ing Group	with presentation of
	MHMD				
Dissemination	-	Public	Data professional	s, research	ers, industry leaders,
			entrepreneurs and	d policyma	akers
Event material	<u>Website</u>				

2.2.5 ITASEC 19



ITALIAN CONFERENCE ON CYBERSECURITY

Pisa, 12-15 February 2019



When	12-15 April 2019	Where	Pisa, Italy	Venue	Consiglio Nazionale delle Ricerche		
Topics	Cybersecurity						
Details	The 2019 edition of ITASEC gathered Italian researchers and professionals working in the field of cybersecurity, from both private and public sectors and include academia, industries, research institutions, and government.						
Organisers	CINI – Cybersecurity National	l Lab					
Who	Enrico Cambiaso (plus, Ivan V	accari and	Maurizio Aiello as a	uthors of t	he presented research work)		
What		Presentation of the research paper <u>Cambiaso</u> , E., Vaccari, I., Patti, L. & Aiello, M. Darknet <u>Security</u> : A <u>Categorization of Attacks to the Tor Network</u>					
Dissemination	-	- Public Academics, industry representatives, policy makers					
Event material	Event page, workshop proceedings						

2.3 Upcoming (M31-M36)

2.3.1 Healthcare IT Workshop Montpellier



When	24 May 2019	Where	Montpellier,	Venue	Université de Montpellier
			France		
Topics	Healthcare IT, with specific fo	cus on blo	ckchain in healthca	re	
Details	The workshop, organised by	the Univer	sity of Montpellier,	is focused	on research related to IT in
	healthcare, at the presence	of healtho	are professionals a	nd acader	nics in the field. Within the
	event, a special roundtable is	envisaged	l on use cases of blo	ockchain in	the healthcare domain.
Organisers	Roxana Ologeanu-Taddei, Ass	sociate Pro	fessor, Université d	le Montpel	lier
Who	Anna Rizzo, Lynkeus				
What	Presentation of MHMD withir	n the round	dtable "Beyond the	technique,	the cases uses of blockchain
	and innovation in healthcare	"			
Dissemination	Website, Twitter,	Public	Healthcare profes	sionals, re	searchers in social sciences,
	Facebook, LinkedIn		researchers in Info	ormation S	ystems security and privacy
Event material	-				

2.3.2 MyData 2019



When	25-27 September 2019	Where	Montpellier,	Venue	Université de Montpellier
			France		
Topics	"Rebuilding trust - for human-centered data economy"				
Details	MyData Global's mission is to empower individuals by improving their right to self-determination				
	regarding their personal data. The human-centric paradigm is aimed at a fair, sustainable, and				
	prosperous digital society, where the sharing of personal data is based on trust as well as band fair relationship between individuals and organisations. MyData 2019 conference is				
	for accelerating global change towards a human-centric approach to personal data. On 25-27				
	September 2019, some 1000 experts from business, legal, tech and society sectors will gather for the fourth time in Helsinki, with the focus on how to effect the change we need.				
Organisers	MyData Global				
Who	TBD – Presence not confirmed				
	Possibly Anna Rizzo, Lynkeus and a representative from UTBV or Athena RC				
What	This year, a panel proposal for the event was submitted by Dr Nicolo Zingales (Lecturer in				
	Competition and Information Law, Sussex European Institute, University of Sussex) with the				
	support of Lynkeus (Anna Rizzo), with the title "Keeping control and minimizing risk in secondary				
	usage of health data", focused on consent and privacy management of individuals' data, privacy				
	preserving technologies and secure computation algorithms, as well as new forms of collective				
	data control ("our data") initiatives by the patient community. If accepted, the panel will				
	encompass the presence of one member of the PC's team (TBD) and/or one representative from				
	UTBV or Athena RC (TBD) as speakers.				
Dissemination	Website, Twitter,	Public	•	•	legal experts, technologists
	Facebook, LinkedIn		and civil society a	t large	
Event material	<u>Website</u>				