DESTINI

SMART DATA PROCESSING AND SYSTEMS OF DEEP INSIGHT

http://www.destini2020.eu

Deliverable D6.5

Minutes and Notes of Workshops, Meetings with Stakeholders, Bilateral Information Meetings and Informative Events

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Contents

1.   Introduction

1.1   Purpose

This document provides a summary in the form of minutes and notes of all workshops, bilateral information meetings and informative events that were conducted within the DESTINI project. These events contributed into seeking ways to further collaborate with the stakeholders through discussion and brainstorming. In addition, these events were a serious factor regarding the proper dissemination of the project.

The deliverable is part of Work Package 6 (WP6) that describes how the knowledge acquired will be disseminated to academia, researchers, industrial and businesses stakeholders, and the general public, demonstrating how they can benefit from the DESTINI's knowledge base and preliminary research results, and supporting sustainable engagement of SMEs and practitioners in WP4, which is responsible for future research activities and project discoveries. Also, it includes preparatory activities for producing survey papers/technical reports and presenting short papers or work in progress targeting at receiving feedback from the research community of highly recognized international conferences and workshops.

1.2   Definitions, Acronyms, and Abbreviations

CUT: Cyprus University of Technology

1.3   Overview

The rest of the document is structured as follows: Section 2 presents minutes from meetings with the stakeholders, advisory board and external partners. Section 3 presents minutes from Workshops conducted in the context of DESTINI. Section 4 presents Minutes from bilateral information meetings and informative events, while Section 5 describes challenges faced during the period of the project and opportunities discussed with the consortium of DESTINI and external partners. Finally, section 6 concludes the document.

2. Minutes of Meetings with Stakeholders, Advisory Board, External Partners

2.1 CING (Cyprus Institute of Neurology and Genetics)

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	11/19/2021	Time:	11:00
Facilitator/ Presenter:	Prof. Andreas Andreou	Location:	Zoom

1. Subject / Short Description
Brainstorming Sessions

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Prof. George Spyrou	CING / Cyprus	georges@cing.ac.cy
Dr. Andreas Christoforou	CUT / Cyprus	xristofo@gmail.com
Dr. Panayiotis Christodoulou	CUT / Cyprus	panchristodoulou@hotmail.com
Michalis Pingos, PhD candidate	CUT / Cyprus	mfpingos@gmail.com
Spyros Loizou, PhD candidate	CUT / Cyprus	loizou.spyros@gmail.com
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
Thomas Nikidiotis, MSc candidate	CUT / Cyprus	ti.nikidiotis@edu.cut.ac.cy

3. Discussion notes	
Topics and targets	Introducer
CING (Cyprus Institute of Neurology and Genetics) is in need of technological expertise regarding data processing. Open discussions have been held about how smart data processing techniques can contribute to the solution of problems in two main sectors: ● Proteomics ● Genomics In addition, upcoming European calls for proposals were discussed for possible future collaborations. Lastly, a brief introduction has been performed regarding the second school of DESTINI, where CING was invited as a presenter for the topic Complex Patterns of Biological Information Decoded with Network-based Bioinformatics.	Prof. Andreas Andreou

2.2 Limassol Municipality

Workpackage:	WP6 – Dissemination and Exploitation			
Date: (MM/DD/YYYY)	11/18/2021	Time:	9:00	
Facilitator/ Presenter:	Prof. Andreas Andreou	Location:	Zoom	

1. Subject / Short Description
Brainstorming Session

2. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Charis Trikkis	President of European Affairs Committee / Limassol Municipality	
Dr. Andreas Christoforou	CUT / Cyprus	xristofo@gmail.com
Dr. Panayiotis Christodoulou	CUT / Cyprus	panchristodoulou@hotmail.com
Michalis Pingos, PhD candidate	CUT / Cyprus	mfpingos@gmail.com
Spyros Loizou, PhD candidate	CUT / Cyprus	loizou.spyros@gmail.com
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
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3. Discussion notes

Topics and targets	Introducer
Some of the most important objectives of the Limassol Municipality align perfectly to DESTINI's research interests. One such objective is transformation of the city of Limassol into a Smart City, using cutting edge technologies, such as machine learning, blockchain and digital twins, all these combined with smart data processing and systems of deep insights. Each technology will contribute to the municipality's strategic plan	Prof. Andreas Andreou

and DESTINI's objectives as follows:

- Digital Twins:

  Monitor of the Smart City as an entity, using IoT devices for different sectors, such as traffic management, energy conservation, safety measures, etc.

- Blockchain:

  Using blockchain, the City can assure the interoperability, immutability and security of crucial data. Blockchain layers can be applied to almost any developed software system.

- Smart Data Processing

  Smart data processing techniques will be used where applicable, making the processing of the data more efficient, optimizing processes and reducing energy consumption of energy-intensive machinery or services. Special attention will be given to the environment as well. Indicative example is the routes and timetables of garbage collection to avoid causing traffic jam to the city centre and oprimize routes to save fuel.

2.3   SBLA (Sewerage Board of Limassol – Amathus)

Workpackage:	WP6 – Dissemination and Exploitation			
Date: (MM/DD/YYYY)	12/17/2021	Time:	12:00	
Facilitator/ Presenter:	Andreas Andreou	Location:	Zoom	

1. Subject / Short Description
Brainstorming Session

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Giannis Tsouloftas	General Manager / Sewerage Board of Limassol–Amathus	
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3. Discussion notes	
Topics and targets	Introducer

The discussion involved management problems that SBLA faces, regarding the predictive maintenance strategies of the pipelines, and monitoring of the system as a whole. In this context, ideas for future collaboration have been expressed, in the context of which some issues could be tackled using IoT devices in combination with Digital Twins, and Smart Data Processing: ● IoT devices Get measurements of critical variables on the water systems. ● Digital Twins: Monitor the water system, build predictive maintenance functionality on top of the DT. ● Smart Data Processing Utilize the data efficiently, handle the data appropriately (Data Cleaning, Data Exploration, Predictive Modeling, Visualization)	Prof. Andreas Andreou

2.4   SOFT ONE TECHNOLOGIES

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	11/08/2021	Time:	16:00
Facilitator/ Presenter:	Prof. Andreas Andreou	Location:	Zoom

1. Subject / Short Description
Brainstorming Session

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
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Prof. Francesco Leotta	Sapienza / Italy	leotta@diag.uniroma1.it

3. Discussion notes	
Topics and targets	introducer
SoftOne is a dynamic software company headquartered in Greece and is focused on the development of ERP, CRM and Cloud Services. Several meetings took place both with physical presence and via	Prof. Andreas Andreou, Mr. Tryphonas Papazoglou

teleconferencing, which mainly focused on brainstorming, for a possible future collaboration between the consortium of DESTINI and SoftOne, on applying BPM technologies to the company, aiming to optimize their business processes, identify bottlenecks, and develop ML decision support systems to support processes.

More specifically:

- Business Process Mining

  Analysis of the business processes of certain sectors of SoftOne's clients, using event logs and perform process discovery, leading to BPM model creation. Perform conformance checking to identify bottlenecks in the processes, and define goals for the optimization of the process. Process evolution, enhancements of the business process using machine learning.

2.5   Water Board of Limassol

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	21/01/2022	Time:	10:00
Facilitator/ Presenter:	Prof. Andreas Andreou	Location:	Water Board of Limassol

1. Subject / Short Description
Brainstorming Session

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Eliana Ttofa	District Engineer / Water Development Department, Water Board of Limassol	etofa@wdd.moa.gov.cy
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
Technical personnel	Water Development Department, Water Board of Limassol	
Evagoras Evagorou, PhD candidate	CUT / Cyprus	
Savvas Chatzichristofis	NUP / CUT Cyprus	s.chatzichristofis@nup.ac.cy

3. Discussion notes	
Topics and targets	introducer
The Water Board of Limassol (WBL) is a public entity of Cyprus, having the goal to provide water services to fulfill the water needs of the town of Limassol (main city and outskirts communities). To begin with, the purpose of the meeting was to discuss critical problems that WBL is currently facing and trying to resolve. Those problems are mainly focused on predictive maintenance of the main pipelines of the water network, and	Prof. Andreas Andreou

are difficult to identify and resolve. The consortium of DESTINI introduced the technologies of IoT in combination with Digital Twins and Machine Learning, and discussed about possible future collaboration in national and EU funded projects.

The general idea is the application of IoT sensors/devices at the most important water pipelines of the water network, and ultimately develop a Digital Twin ecosystem that will be combined with Machine Learning and Smart Data processing, in order to provide predictive maintenance strategies, monitoring and real-time data visualization. The main issue is that the pipe network is vast, it covers long geographical distances and is located in difficult terrains and inaccessible areas. Therefore, technology for detecting early and accurately any damages or leakages to the network is of paramount importance. WBL and CUT agreed to continue discussions until the end of 2022 to be able to find suitable call for a relevant proposal.

2.6   Cyprus Subsea Ltd

Workpackage:	WP6 – Dissemination and Exploitation			
Date: (MM/DD/YYYY)	03/15/2022	Time:	12:00	
Facilitator/ Presenter:	Andreas Andreou	Location:	Zoom	

1. Subject / Short Description
Brainstorming Sessions

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Kyriakos Mavris	Technical Director / Cyprus Subsea Consulting and Services	kmavris@cyprus-subsea.com
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Dr. Panayiotis Christodoulou	CUT / Cyprus	panchristodoulou@hotmail.com
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Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
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3. Discussion notes	
Topics and targets	Introducer
The main focus of the discussions held revolved around techniques and technologies of smart data processing, such as IoT, Blockchain and Digital Twins, which may be used to tackle challenged and problems in underwater surveillance, measurement of different water substances and evaluation of water pollution cases by nearby vessels.	Prof. Andreas Andreou

- Digital Twins

    Development of an ecosystem that includes the water area of interest, visualization and monitoring of the vessels in the area. In addition, alerting for any water suspicious substances which are stored in the blockchain for the irreversibility, security and scalability of the data.

2.7 Paradisiotis Group

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	(a) 08/04/2021 (b) 09/20/2021 (c) 02/09/2022 (d) 03/25/2022 (e) 04/08/2022	Time:	(a) 11:30 (b) 11:00 (c) 13:00 (d) 12:30 (e) 12:00
Facilitator/ Presenter:	DESTINI	Location:	Zoom, Physical

1. Subject / Short Description
Brainstorming sessions, preparation of proposals

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Theodoros Pikolos	IT / Paradisiotis	itadministrator@paradisiotis.com

Spyros Loizou	IT / Paradisiotis	loizou.spyros@gmail.com
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
Pavlos Paradisiotis	Director Paradisiotis Group	pavlos@paradisiotis.com

3. Discussion notes	
Topics and targets	Introducer
Paradisiotis Group is one of the main piloting sites of DESTINI. As such, the consortium devoted effort and time to meet with representatives of the company multiple times and discuss challenges and problems faced under the spectrum of Industry 4.0 and smart manufacturing. During the discussions, ideas for future collaboration were expressed and analyzed. Specifically, Paradisiotis Group and DESTINI's consortium agreed to target the submission of an EU funded project in the context of Co-Develop call. The proposal is being prepared at the time this deliverable is being prepared. The main 17bjectivee of the proposal is to combine business process management and blockchain, in order to optimize some business processes of Paradisiotis Group, with 3 critical targets: 1. Reduction of energy consumption 2. Enhancement of food quality produced by Paradisiotis Group 3. Assurance of the security of important data The brainstorming sessions also revealed great potential for addressing additional challenges in the line of business of Paradisiotis Group, namely the process for breeding chicken, the slaughterhouse, the packaging activities and the preparation of food in a technologically modern mill. The two parties agreed to continue their collaboration after the	Prof. Andreas Andreou

conclusion of the DESTINI project and try to exploit synergies for promoting applied research and delivering solutions to the aforementioned challenges.	

2.8   Statare Solutions Ltd.

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	10/23/2021	Time:	11:00
Facilitator/ Presenter:	Andreas Andreou	Location:	Physical

1. Subject / Short Description

Brainstorming Sessions

2. Attendees

Name	Department/Division	E-mail
George Mavrikios	Director / Statare	mavrikios@statarebrands.com
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Prof. Savvas Chatzichristofis	NUP / CUT Cyprus	s.chatzichristofis@nup.ac.cy
Dr. Andreas Christoforou	CUT / Cyprus	xristofo@gmail.com
Dr. Panayiotis Christodoulou	CUT / Cyprus	panchristodoulou@hotmail.com

3. Discussion notes	
Topics and targets	introducer
Statare is a group of companies that is mainly involved with the production and sale of furniture and is interested in optimizing its processes, utilizing new technologies and modernizing their software systems. It showed great interest in DESTINI and its areas of applied research. Discussions around the topics of governance and management of customer data, technology of industry 4.0, and adoption of modern technologies and techniques for eshop web applications, such as: ● Blockchain ● Data Processing	Prof. Andreas Andreou

2.9   Logisoft Computer Systems LTD.

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	(a) 12/03/2021 (b) 02/18/2022	Time:	(a) 10:30 (b) 11:00
Facilitator/ Presenter:	Andreas Andreou	Location:	Zoom, Physical

1. Subject / Short Description
Brainstorming Sessions

2. Attendees		
Name	Department/Division	E-mail

Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Dr. Andreas Christoforou	CUT / Cyprus	xristofo@gmail.com
Dr. Panayiotis Christodoulou	CUT / Cyprus	panchristodoulou@hotmail.com
Michalis Pingos, PhD candidate	CUT / Cyprus	mfpingos@gmail.com
Spyros Loizou, PhD candidate	CUT / Cyprus	loizou.spyros@gmail.com
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
Thomas Nikidiotis, MSc candidate	CUT / Cyprus	ti.nikidiotis@edu.cut.ac.cy

3. Discussion notes	
Topics and targets	introducer

Logisoft has 2 functional pillars that relate to DESTINI's research interests: The first one is hotel management and the second is IoT for agriculture specifically for farms.
 	
● **Pillar 1: Hotel Management**
 	
  Logisoft is specialized in the development of hotel management software. The enterprises utilizes techniques such as data visualization and data analytics for some important activities of the hotels, such as reservations, projection of customers, and prediction of prices. In addition, Logisoft attempts to integrate blockchain on hotel booking. In this context, it has been discussed on collaborating on national/EU-funded proposals.
 	
● **Pillar 2: Farm Management**
 	
  On the topic of farm management, discussions were
	Dr. Andreas Christoforou

been made on installing IoT sensors in order to monitor the conditions of the farm using some crucial metrics such as temperature, humidity, and organizing the feeding and watering of the animals. In addition, the consortium is interested in collaborating with Logisoft on the development of a graphical dashboard for demonstrating the sensor reading of IoT devices, and alerting the key persons in cases of abnormal situations in the farm, such as high temperature, or shortage of water.	
Overall, Logisoft declared its interest to collaborate with CUT even past the end of the project as it feels there is ample room for collaboration is various sub-fields of smart data processing applied in its own line of business.	

2.10 KPMG Cyprus

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	10/01/2022	Time:	12:00
Facilitator/ Presenter:	Michalis Pingos	Location:	Zoom

1. Subject / Short Description
Short discussion and invitation for participation to the second school of DESTINI

2. Attendees		
Name	Department/Division	E-mail

Michalis Pingos, PhD candidate	CUT / Cyprus	mfpingos@gmail.com
Elia Kouzari	Assistant Manager / KPMG Cyprus	Elia.Kouzari@kpmg.com.cy
Stelios Mappouras, MSc student	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy

3. Discussion notes	
Topics and targets	Introducer
KPMG is a global network of independent member firms offering audit, tax and advisory services. KPMG is familiar with Business Process Management technologies, which they have been invited to present about on DESTINI's second school, followed by a short discussion around the subject of BPM, regarding various use cases, tools, models and algorithms for BPM. Further discussions revealed a common interest between KPMG Cyprus and DESTINI's consortium to pursue jointly the development of useful and open-source tools that may be adopted by SMEs for their daily business processes analysis. The two parties agreed to explore the possibility of writing and submitting proposals for attracting national or EU finding, which will have as their core approach Process Mining techniques and algorithms, combined with AI and Machine Learning capabilities.	Michalis Pingos Andreas Andreou

2.11   Vevivo Ltd.

Workpackage:	WP6 – Dissemination and Exploitation		
Date: (MM/DD/YYYY)	(a) 11/15/2021 (b) 02/08/2022	Time:	(a) 10:00 (b) 11:30

Facilitator/ Presenter:	Prof. Andreas Andreou	Location:	Zoom, Physical

1. Subject / Short Description
Brainstorming Sessions

2. Attendees		
Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Tony Ellinas	Managing Director / Vevivo Ltd.	
Dr. Andreas Christoforou	CUT / Cyprus	xristofo@gmail.com
Michalis Pingos, PhD candidate	CUT / Cyprus	mfpingos@gmail.com
Spyros Loizou, PhD candidate	CUT / Cyprus	loizou.spyros@gmail.com
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy
Thomas Nikidiotis, MSc candidate	CUT / Cyprus	ti.nikidiotis@edu.cut.ac.cy

3. Discussion notes	
Topics and targets	introducer
Vevivo is a company that developed and runs a mobile application focusing and giving a gateway for lonely people to connect through their common interests, and build a community on top of that.	Prof. Andreas Andreou

The discussion revolved around enhancing the user experience of Vevivo users, using machine learning techniques to match the common interests between the users. In addition, ideas on the subject of recommendation systems to adopt on top of Vevivo infrastructure were also included in the session.	

3. Minutes of Workshops

The aim of the workshops was to examine whether the academia, researchers, industrial and business stakeholders and the general public can benefit from DESTINI's knowledge base and preliminary research results. Due to COVID-19 still spreading and the pandemic restrictions still present, difficulties were faced in organizing workshops with physical presence. Therefore, it was decided to hold workshops in the context of other online events, such as the second online school.

A virtual workshop was organized in the context of DESTINIS's second online school, which included preliminary results from research projects, innovative case studies from private companies, results from research articles and EU-funded projects.

The most significant findings of the workshop per speaker are as follows:

Prof. George Spyrou (CING – Cyprus Institute of Neurology and Genetics)
Prof. George Spyrou is the Head of the Bioinformatics department of CING. Several discussions were held, as CING is a significant stakeholder/collaborator of DESTINI. In the context of the workshop, the topic presented was about Complex Patterns of Biological Information Decoded with Network-based Bioinformatics. The discussions revolved around the combination of smart data processing with healthcare, in order to analyze and decode crucial information aiming to produce precision medicines.

Prof. Herodotos Herodotou, Sheraz Aslam (Data Intensive Computing Research Lab, CUT)
Discussions have been conducted also prior to the second school of DESTINI, discussing about their area of expertise, data intensive computing, big data processing and data lakes. Their research interests align with those of DESTINI, as regards processes collecting big data that were created prior to the execution of smart data processing techniques. In addition, the topic of the workshop has been analyzed, which presented the "Enhanced Berth Allocation using the Cuckoo Search Algorithm", algorithm which can schedule dynamically a vessel's arrival in a port so as to avoid conflicts. This algorithm is part of an EU-funded project, "STEAM (Sea Traffic Management in the Eastern Mediterranean), in which CUT participates with the Data Intensive Computing Research Lab of the dept. of Electrical Engineering, Computer Engineering & Informatics.

Prof. Panayiotis Christodoulou (Neapolis University of Pafos)
Panayiotis Christodoulou is a Professor at Neapolis University of Pafos, and postdoc/researcher in DESTINI. His expertise and research interests lay on Blockchain Technologies. As a member of DESTINI, several discussions have taken place in the context of blockchain technologies, including how

blockchain works, decentralized applications, DEFI, and NFTs, can be integrated to smart data processing. His presentation at the workshop essentially showcased a decentralized application that uses educational robotics and blockchain to disrupt the educational processes. This work is already published in a scientific journal as part of DESTINI's outcomes, and was presented as a case study for blockchain technologies, in the context of the second school of DESTINI.

Prof. Yiorgos Demetriou (Frederick University of Cyprus)
Yiorgos Demetriou is a Professor at the department of Electrical Engineering, Computer Engineering and Informatics at the Frederick University of Cyprus. During his presentation, the challenge of enhancing Marine Applications using smart data processing was discussed focusing on how to make the vessels unmanned. A new idea that was expressed was to have unmanned surface vessels petrolic a coastline for detecting pollution of the sea in popular beaches awarded the blue flag. It was agreed to pursue funding from local or EU calls for developing a coastal nonrioting and alert system. This was also suggested as a possible new project for the Municipality of Limassol, the latter being very interested and supportive for such a future endeavor.

Jerin George Mathew, Flavia Monti (Sapienza University of Rome)
The discussions with Jerin George Mathew and Flavia Monti from the Sapienza University of Rome, focused methods and techniques for Industry 4.0, including how the technological expertise on topics investigated by DESTINI, such as Business Process Mining, Smart Data Processing, Blockchain, can be applied to an industry 4.0 environment. Their presentation on the workshop involved the evolution of the industry concluding to Industry 4.0. They presented a case study of a smart die cutter, which contains sensors that are controlled by a mini PC, and the worker interacts with the die cutter through a dashboard where he monitors and manages the production. This example triggered discussions on how sensors and IoT have evolved over time and can nowadays produce big data.

Prof. George Botsaris (Dept. of Agricultural Sciences, Biotechnology and Food Science, CUT)
Professor George Botsaris comes from the Dept. of Agricultural Sciences, Biotechnology and Food Science of the Cyprus University of Technology. The discussions prior to the DESTINI's workshop day and his topic, was around Data Driven Detection and Biological Control of Food Borne Pathogens. During the workshop, a case study was presented about Mycobacterium Avium Subspecies Paratuberculosis. His presentation was about detecting food borne pathogens using a data driven analysis.

4.   Bilateral Information Meetings & Events

Due to COVID-19 still spreading and the pandemic restrictions still present, difficulties were encountered in organizing physical presence events. Consequently, bilateral information meetings and events mainly were conducted by teleconferencing.

4.1 Presentation of DESTINI on the Radio

Researchers of DESTINI were invited at the local radio station of CUT, introducing DESTINI and its research areas mainly to the university students, and simultaneously to the general public. In addition, this forum enabled the consortium to invite people to attend the second school of DESTINI was one of the main purposes of the day.

4.2 Meeting with ARATOS Group

Aratos is a group of companies based in Greece, specialized in smart IT solutions focused on digital transformation, social innovation, medical applications, etc. The group is currently focusing on trending upcoming technologies such as Blockchain and Digital Twins.

Members from the team of Aratos group were invited and visited CUT in order to brainstorm, share ideas and discuss about possible collaborations. The main joint research interests included in the discussions were Digital Twins and Blockchain technologies. Furthermore, preparation of proposals for attracting EU funding, as well as targeting the Interregional Collaboration projects were a part of the future plans' discussions. At the time of the submission of this deliverable, two proposals were prepared and submitted under Horizon Europe and the eDemocracy calls, where CUT is one if the key partners leading the workpackages with smart data processing activities.

4.3 Meeting with OptionsNet IT Services – Greece

OptionsNet is a software development company with expertise in shipping management. They are currently focusing on emergency management on maritime applications. Members of CUT visited the premises of OptionsNet and exchanged information about DESTINI and the products of the company. The brainstorming discussions held afterwards revealed great potential for collaboration with the company mainly focusing on their area of expertise, which revolved around shipping management, using smart data processing and IoT technologies.

4.4 Meeting with Sammy – Greece

Sammy, is a company associated with IoT, specifically focused into smart marinas, boarding of the boats in the marinas, using smart data processing in combination with IoT technologies. Members of CUT visited Sammy and exchanged ideas for applied research, disseminating at the same time the objectives of the project and the knowledge gained thus far. Discussions were performed that focused on how DESTINI's approach towards collection and processing of big data, and their transformation into smart information guiding systems of deep insight could be utilized by Sammy to optimize its procedures, improve its analytics and offer its clients better services. During these discussions possible future collaboration for introducing Smart Marina applications in Cyprus was elaborated.

5.   Challenges and Opportunities

With the completion of DESTINI approaching, the consortium continuously seeks ways to further continue its collaboration with stakeholders, mainly in Cyprus, but also between the partners. Weekly online teleconferencing have continuously taken place, with brainstorming, sharing of ideas and discussing about possible projects to work together and continue this collaboration.

Further to that, a series of meetings in Cyprus were performed, with companies and governmental bodies, in an attempt to setup pilots and experimental sites in order to apply algorithms, techniques and methods that resulted from knowledge and information exchange between the partners.

Two of the most mature pilot sites which have already been initialized are as follows:

5.1   Smart Maritime – Cypriot Deputy Ministry of Shipping

The Shipping Deputy Ministry is focused on safeguarding and further developing Cyprus shipping, envisioning to consolidate Cyprus's position as an advanced maritime cluster.

A meeting took place at the Deputy Ministry, where the DESTINI project was presented and a set of ideas for collaboration in what it was termed "Smart Maritime" were discussed with the deputy minister Mr. Vassilis Demetriades. The minister explained the problems that the ministry faces and outlined the strategy and priorities for Maritime in Cyprus. Further discussions were then held to assess how knowledge and expertise gathered throughout DESTINI can contribute to solving these issues. The discussion mainly revolved around enhancing the data security of the Maritime data of Cyprus, and contributing to their goal of Digitization, using Digital Twins, and smart data processing.

5.2   Business Process Mining – Vassos Eliades LTD

Vassos Eliades LTD is one of the largest trading & logistics companies in Cyprus, and one of the biggest Nestle distributors worldwide.

Vassos Eliades is already a technologically advanced company having several systems for managing their processes. However, with the scale up of the enterprise the need for optimizing the business processes arises. In this context, future collaboration opportunities were discussed, for applying business process mining on their existing software systems. The ultimate goal is the optimization of the business processes using BPM and Machine Learning in order to identify bottlenecks and build a decision support system to assist in making crucial decisions, while keeping the processes at an optimal state.

6.   Conclusions

This document summarized all minutes and notes for workshops, bilateral information meetings and informative events that were conducted within the DESTINI project. These events contributed to further collaborating with the project's stakeholders through discussions and brainstorming.

The deliverable is part of Work Package 6 (WP6) that describes how the knowledge acquired will be disseminated to academia, researchers, industrial and businesses stakeholders, and the general public, demonstrating how they can benefit from the DESTINI's knowledge base and preliminary research results, and supporting sustainable engagement of SMEs and practitioners.

In the context of Work Package 6, a number of online and physical events were conducted. These events aimed to determine how knowledge acquired from and research results produced by DESTINI can benefit both the stakeholders and the general public, as well as pursuing opportunities for applied research. Furthermore, in this context, possible future collaborations were discussed with stakeholders mainly through new proposals to seek external funding, either national or European. Lastly, two pilot setupd were developed in collaboration with the Cypriot Deputy Ministry of Shipping and company Vassos Eliades LTD, the former related to Smart Maritime and the latter to applying smart Business Process Mining techniques to trading and logistics.