



## Deliverable 4.3

### **Stakeholders Meetings: Discussions' Minutes and Notes**

Document details:

<b>Editor :</b>	CUT
<b>Contributors :</b>	CUT
<b>Date:</b>	21/12/2022
<b>Version:</b>	V9.0

## Document history:

<b>Version</b>	<b>Date</b>	<b>Contributor</b>	<b>Comments</b>
1.0	15/07/2021	Andreas Christoforou	Initial document, structure and content
2.0	17/08/2021	Panayiotis Christodoulou, Spyros Loizou, Michalis Pingos, Andreas Christoforou	Additions of new stakeholders' meetings minutes and notes
3.0	17/09/2021	Andreas Andreou	First review
4.0	02/08/2021	Panayiotis Christodoulou, Spyros Loizou, Michalis Pingos, Andreas Christoforou, Stelios Mappouras	Corrections and additions
5.0	08/09/2021	Andreas Andreou	Second review
6.0	15/09/2021	Stelios Mappouras	Corrections and additions
7.0	28/09/2021	Andreas Andreou	Final review
8.0	04/10/2021	Partners	Final review & approval
9.0	21/12/2022	Andreas Andreou	Document Revision

# Contents

- 1. Introduction..... 5
  - 1.1 Purpose..... 5
  - 1.2 Definitions, Acronyms, and Abbreviations..... 5
  - 1.3 Overview..... 5
- 2. CYPRUS INSTITUTE OF NEUROLOGY AND GENETICS (CING) ..... 6
- 3. PARADISIOTIS GROUP ..... 8
- 4. CYPRUS SUBSEA CONSULTING & SERVICES..... 10
- 5. SEWERAGE BOARD OF LIMASSOL..... 13
- 6. LIMASSOL WATERBOARD ..... 15
- 7. LIMASSOL MUNICIPALITY ..... 17
- 8. MINISTRY OF ENERGY, COMMERCE AND INDUSTRY ..... 19
- 9. KPMG (Cyprus)..... 21
- 10. SOFTONE..... 23
- 11. CYENS – CENTRE OF EXCELLENCE ..... 25
- 12. ERATOSTHENES CENTER OF EXCELLENCE (CoE) ..... 27
- 13. DIGITAL HERITAGE RESEARCH LABORATORY (CUT) ..... 29
- 14. Conclusions..... 31

# 1. Introduction

## 1.1 Purpose

This document quotes minutes and notes from several meetings that took place between the members of CUT and stakeholders from the beginning of the project (October 2019) until July, 2021. Due to the covid-19 virus outbreak and the health protocols and restrictions posed, the meetings were held via teleconferencing tools, such as Zoom, Google Meet and WebMeetings. The purpose of the meetings was to discuss and exchange ideas on scientific problems and challenges of specific application domains so as to direct the project's research efforts and training activities towards benefiting both the research society as well as the involved stakeholders.

This deliverable is part of Work Package 4 (WP4) that describes the actions needed to be taken from the consortium to engage industrial and business stakeholders and establish direct communication channels for feedback and collection of real-world data that will facilitate experimentation and validation, and prepare the road for future piloting. Furthermore, WP4 suggests methods and actions followed by the consortium to extend the community and networks of strategic research collaborators, and support sustainability by attracting EU and national funding in the future.

## 1.2 Definitions, Acronyms, and Abbreviations

CUT: Cyprus University of Technology

CING: Cyprus Institute of Neurology and Genetics

CoE: Centre of Excellence

CYENS: Research and Innovation Centre on Interactive Media, Smart System and Emerging Technologies  
(formerly known as RISE)

## 1.3 Overview

The rest of the document is structured as follows: Sections 2 to 13 describe the major findings from the online meetings in the form of minutes and notes, structured around the different organizations-stakeholders. It should be noted that in some cases more than one meeting was performed as a follow up or continuation of the discussions. This deliverable summarizes for each stakeholder the most important findings from all meetings. Finally, Section 14 concludes this deliverable.

## 2. CYPRUS INSTITUTE OF NEUROLOGY AND GENETICS (CING)

Approximately 3 meetings took place with CING from which the most significant notes and minutes of the online meetings with CING are given below:

### 1. Profile

CING is a bi-communal, medical, research and academic center that combines education, services, and research activities. CING is dedicated to serve the society through preventing diseases and medical care, while offering research and educational programs on neurology and genetics. CING is dedicated to lessening the suffering of patients and their families and preventing diseases through patient care, research and educational programs on neurological and genetic conditions such as muscular dystrophy, multiple sclerosis, epilepsy, chromosomal abnormalities and all other aspects of molecular biology and genetics such as thalassaemia, molecular virology, mental retardation, cardiovascular disease, stroke, cystic fibrosis and neurogenetics. Moreover, CING plays a key role in the fight against crime by providing specialized DNA services to the police authorities and expert court testimony for criminal and civil investigations.

### 2. Subject

Open Discussion with CING for future collaboration on smart data processing for healthcare.

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy

Prof. George Spyrou	CING	georges@cing.ac.cy
---------------------	------	--------------------

#### 4. Discussion notes

- Members of the SEIIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- CING presented the aim of its academic center as well as the current research that takes place within the center
- CING showed tremendous interest to participate into the 1<sup>st</sup> DESTINI school by presenting to the general public and other stakeholders their academic center and research work
- CING can share samples of their genetic, neurology and medical data that can be used by the CUT when conducting experiments
- CING applies various machine learning algorithms to their datasets when conducting experiments thus they are interested in collaborating with CUT to investigate more algorithms and techniques in smart data processing
- CING's interests revolve around medical drugs and treatments, and the development of new forms of drugs through the analysis of proteins etc. DESTINI could study this problem jointly with CING and provide solutions or formulations (algorithms) that could tackle this type of challenges (e.g. FCM, genetic algorithms), as well as new forms of data analysis & visualization. Also, DESTINI could apply principles from the world of data lakes for data gathering and governance.

### 3. PARADISIOTIS GROUP

Approximately 4 meetings took place with Paradisiotis Group from which the most significant notes and minutes of the online meetings are given below:

#### 1. Profile

Paradisiotis is one of the most technologically advanced food production companies in Cyprus. It started in 1975 with one small center, and now it has 4 centers using the latest technology, to ensure the best service for the whole country. Paradisiotis Ltd is not only one of the largest and most accomplished companies in the field of chicken farming in Cyprus but ever since the company's inception in 1975, it has always looked to producing the best products for the Cypriot consumer. The company's mission has, and will always continue to be, to produce tasty, easy to prepare quality products to satisfy the pocket and the needs of every individual person in Cyprus. Paradisiotis Ltd holds approximately 25% of the food product market and thus is due to the fact that the company and its employees adhere values. This value includes teamwork, innovation, quality products, good service and the respect for the needs of the Cypriot consumer, always trying to improve the range of products and services to suits their needs.

#### 2. Subject

Open Discussion with Paradisiotis Group for future collaboration

#### 3. Attendees

Name	Department/ Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy



Pavlos Paradisiotis	Director, Paradisiotis Group	michalis.pingos@cut.ac.cy
Andreas Paradisiotis	Mechanical Engineer, Paradisiotis Group	michalis.pingos@cut.ac.cy
Elias Moulistanos	Electrical Engineer, Paradisiotis Group	michalis.pingos@cut.ac.cy

#### 4. Discussion notes

- Members of the SEiIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Paradisiotis introduced to CUT autonomous machines that control ventilation and cooling/airing in chicken farms, and that they produce specialized feeding material by mixing ingredients in a high-technology mill.
- During the meeting we discussed the needs of the company and analyzed the areas that CUT can help
- Paradisiotis would like to apply various machine learning algorithms to their datasets when conducting experiments thus they are interested in collaborating with CUT to investigate more algorithms and techniques in smart data processing
- Process mining: Extensive discussion about utilizing Paradeisiotis log files to perform process analysis and/or improvement. Logs are stored for a large number of activities, ranging from breeding chicken in farms (feeding, watering, airing, etc.) to slaughtering and packaging poultry meat, to accepting and executing dedicated packaging orders, and finally to delivering the end-products to the selling points (i.e. supermarkets).
- Discussion on how to utilize process mining techniques and models led to the decision to investigate the following cases, provided that there is enough information in data logs and this information can be filtered and cleaned to enable experimentation (initial investigation provided evidence that this is feasible):
  - Deliveries of products – routes of lorries
  - Mill operation that produces food for breeding chicken in the farm
  - Other case-study based on data logs
- In addition, discussions revolved around submitting new research proposals in local (Research and Innovation Foundation of Cyprus) or international (Interreq, Horizon) took place confirming the willingness of both parties to engage to such attempts in the near future.

## 4. CYPRUS SUBSEA CONSULTING & SERVICES

Approximately 5 meetings took place with Cyprus Subsea Consulting and Services from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

Cyprus Subsea Consulting & Services was founded in 2012 blending academic and technical expertise with seagoing and survey experience. The organization's main mission is to operate, maintain, develop, and supply ocean gliders and other innovative marine monitoring products while delivering excellent marine services.

### 2. Subject

Open Discussion with Cyprus Subsea Consulting and Services for future collaboration

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Kyriakos Mavris	Cyprus Subsea	kmavris@cyprus-subsea.com
Daniel Hayes	Cyprus Subsea	hayesdan@cyprus-subsea.com

#### 4. Discussion notes

- Members of the SEIIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Cyprus SUBSEA consulting presented their innovative marine monitoring products
- Cyprus SUBSEA showed tremendous interest to participate into the 1<sup>st</sup> DESTINI school by presenting to the general public and other stakeholders their most recent work on surveillance and monitoring of sea pollution.
- Cyprus SUBSEA accepted the invitation to participate to the DESTINI's advisory board
- Currently, Cyprus SUBSEA does not apply any machine learning algorithms to their experiments, thus they are interested in collaborating with CUT to investigate how algorithms and smart data processing techniques can be applied to their products or ideas
- Cyprus SUBSEA is also interested in participating with the DESTINI's team in other European proposals

The discussions with Cyprus SUBSEA and with the Municipality of Limassol (see also section 7) led to the formulation of a new proposal idea that would serve as an early detection and warning system for sea pollution by vessels outside the coastal line of the city of Limassol. This idea will be further developed and enhanced so to be submitted to an upcoming local or EU call for funding.

The proposal has been drafted as follows:

**Tentative title:** Integrated coastal line surveillance and alerting system

##### **Description**

Coastal areas suffer from pollution caused by vessels that are either anchored near the shore or are passing by on their way to other areas or neighbouring countries. Municipalities with long coastal lines comprising popular beaches that are used by thousands of people each season are striving to find solutions to this problem and devise ways to detect polluters and punish them through fines and penalties. This problem is very significant for Limassol and the corresponding Municipality has been trying to tackle it through purchasing patrolling services from the private sector.

The proposed project proposes the development of an integrated system for the surveillance of the coastal line through a swarm of autonomous unmanned surface vehicles – USV (est. 2-3 units), which will be equipped with various sensors and a camera. The USVs will be powered by rechargeable batteries and will patrol a designated area in a continuous cycle (one operating, the rest charging). Patrolling will comprise the detection of water pollution by means of solid garbage, oil spills, and/or other substances, which will be made feasible through processing of the readings of the sensors and the images captured by the camera. The sensor data, the images captured by the camera and the position of the USV will be transmitted through appropriate technology to a base station where a server will process the data. Processing will include the detection of the type of pollution traced and the execution of mathematical models that will simulate the behavior of currents in the area around the position of the USV and between the pollution spot and the shore. This simulation will enable the prediction of the direction of the pollution spread or movement and their speed, and the assessment of the severity of the pollution. All this information will be graphically depicted on a dedicated GIS system that will be developed and operated to support surveillance of the coastal lines. Based on the above, an alerting mechanism will be developed through which local authorities (municipality, coastal guard, dept of fisheries, etc) will be informed about the existence of pollution, its position and its spread. Once

pollution has been detected, the USV may start investigating the area around it in an attempt to trace and locate polluters. It will combine information about the position of vessels in the area (the system will be integrated with platforms providing such data in real-time), satellite and/or drone images, and will patrol nearby to collect further images and other sensor information that will allow authorities to acquire evidences against polluters so as to apply fines and penalties.

## 5. SEWERAGE BOARD OF LIMASSOL

Approximately 3 meetings took place with SBLA from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

The Sewerage Board of Limassol is responsible for the construction, operation, and maintenance of the central sewerage system for the collection and treatment of municipal wastewater of the central Limassol area, as well as the construction of the basic infrastructure of the stormwater drainage system.

### 2. Subject

Open Discussion with Sewerage Board of Limassol for future collaboration

### 3. Attendees

Name	Department/ Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	<a href="mailto:andreas.andreou@cut.ac.cy">andreas.andreou@cut.ac.cy</a>
Andreas Christoforou, PhD	CUT / Cyprus	<a href="mailto:andreas.christoforou@cut.ac.cy">andreas.christoforou@cut.ac.cy</a>
Panagiotis Christodoulou, PhD	CUT / Cyprus	<a href="mailto:paa.christodoulou@edu.cut.ac.cy">paa.christodoulou@edu.cut.ac.cy</a>
Spyros Loizou, PhD Candidate	CUT / Cyprus	<a href="mailto:spyros.loizou@cut.ac.cy">spyros.loizou@cut.ac.cy</a>
Michalis Pingos, PhD Candidate	CUT / Cyprus	<a href="mailto:michalis.pingos@cut.ac.cy">michalis.pingos@cut.ac.cy</a>
Yiannis Tsouloftas, Director	SBLA	<a href="mailto:tsouloftas@sbla.com.cy">tsouloftas@sbla.com.cy</a>
Rafaella Georgiadou, Officer	SBLA	<a href="mailto:rafaella@sbla.com.cy">rafaella@sbla.com.cy</a>

Giorgos Lekkos, Officer	SBLA	lekkosg@sbla.com.cy
Stelios Mappouras, MSc candidate	CUT / Cyprus	sm.mappouras@edu.cut.ac.cy

#### 4. Discussion notes

- Members of the SEIIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Mr. Tsouloftas on behalf of the Sewage Board presented the work that is currently being carried out by SBLA along with a series of challenges/problems that they currently face, such as:
  - Efficient monitoring of technical equipment
  - Predictive maintenance of pipe network
  - Management of network for collecting rain water
- Discussions on how the project consortium can provide solutions to those problems took place, highlighting the potential benefits of smart data processing to the abovementioned challenges.
- SBLA agreed to provide sample data to CUT for further investigation. Currently, SBLA records data on waste management, subsoil and groundwater, and floods (as a result of heavy rains) in the broader area of Limassol.
- Potential applications of smart data processing are:
  - Detection of leakages
  - Increase of odour
  - Underground or soil pollution
- SBLA and DESTINI agreed to be in close contact and collaborate in the near future for preparing and submitting proposals for funding, either at national or EU level, to address the challenges listed above

## 6. LIMASSOL WATERBOARD

Approximately 3 meetings took place with WBL from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

Limassol Waterboard is responsible to provide sufficient quantity and quality and water in order to meet the domestic, commercial and industrial needs of its consumers. The organization main activities are maintaining and expanding the water supply network, imposing water rates, maintenance of the water network, etc.

### 2. Subject

Open Discussion with Limassol Waterboard for future collaboration

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Socrates Metaxas	Director, Limassol Waterboard	socratesM@wbl.com.cy
Solomos Charalambous	Technical Services, Limassol Waterboard	solomos@wbl.com.cy

#### 4. Discussion notes

- Members of the SEiIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Limassol Waterboard presented to CUT members the European Projects in which they participated
- Limassol Waterboard showed tremendous interest to participate to the 1<sup>st</sup> DESTINI school by presenting to the general public and other stakeholders their organization and work in research projects (e.g. SmartWater)
- Members of the Limassol Waterboard presented the challenges and open problems that currently exist in their line of work. In return, CUT members presented how the Limassol Waterboard can face these challenges (for example water leakage) through the research work that is being conducted in DESTINI
- Limassol Waterboard showed interest in participating with DESTINI's team in future local and European proposals

A new idea for extending a previous project (called EPIRROI) on leakage detection was discussed, which will aim at introducing Fuzzy Cognitive Maps for simulating the key factors that contribute to the maintenance of the water network. FCMs will enable the execution of simulations and scenarios that will provide decision support to water network engineers and provide the means for performing predictive maintenance tasks.



## 7. LIMASSOL MUNICIPALITY

Approximately 4 meetings took place with Limassol Municipality from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

Limassol Municipality is a governmental entity which is responsible to provide public services within the geographic area of Limassol, such as law, cultural, traffic police, cleaning, etc, to the citizens of Limassol. Limassol is a city on the southern coast of Cyprus and capital of the district with the same name. Limassol is the second largest urban area in Cyprus after Nicosia, with an urban population of 183,658 and a metropolitan population of 239,842.

### 2. Subject / Short Description

Open Discussion with Limassol Municipality for future collaboration

### 3. Attendees

Name	Department/ Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Harris Trikkis, Municipal Councillor	Limassol Municipality/ Cyprus	harris@trikkis.com.cy

#### 4. Discussion notes

- Members of the SEiS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Limassol Municipality presented to CUT the various problems that the Municipality faces
- CUT members discussed the needs of the Municipality and analyzed the areas that CUT can help
- One of the the biggest problems that the Limassol municipality ifaces is the constant discharge of sewage into the sea
- Limassol Municipality showed interest in participating with DESTINI's team in European proposals

Discussions with the Municipality of Limassol (see also section 4) revolved around a significant problem faced at the coastal areas which are often polluted by vessels that are either anchored near the shore or are passing by on their way to other areas or neighbouring countries. Garbage, waste or other chemicals are dropped in the sea, with droughts and currents pushing pollution to swimming areas. This is of course a problem faced especially by municipalities with long coastal lines that comprise popular beaches used by thousands of people each season. The Municipality of Limassol is striving to find solutions to this problem and devise ways to detect polluters and punish them through fines and penalties, such as purchasing patrolling services from the private sector.

The discussions resulted in the formulation of a new proposal idea that would serve as an early detection and warning system for sea pollution by vessels outside the coastal line of the city of Limassol. This idea will be further developed and enhanced so to be submitted to an upcoming local or EU call for funding.

The proposal has been drafted as described in section 4.

Finally, the issue of smart cities was also discussed, with Mr. Trikkis outlining the initiatives and projects that the Municipality of Limassol participated over the last 5 years which aimed at making Limassol a smarter city. He also analyzed the municipality's strategy and vision regarding smart applications, such as public lighting, parking, garbage collection, etc. DESTINI's team elaborated in these areas and demonstrated how smart data processing can assist these initiatives and enhance the effectiveness of smart applications in the aforementioned fields.

## 8. MINISTRY OF ENERGY, COMMERCE AND INDUSTRY

Approximately 2 meetings took place with the Ministry from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

The main objective of the Ministry of Energy, Commerce and Industry, is the development of Cyprus' economy, through the continuous support of the trade sectors, services, industry, energy, technology and tourism, as well as the strengthening of competition and the protection of consumers' interests. Among the Ministry's priorities, is the creation of the appropriate business environment, by implementing the legislation regarding the registration of companies, trademarks, business names and property rights.

### 2. Subject / Short Description

Open Discussion with Ministry of Energy, Commerce and Industry for future collaboration

### 3. Attendees

Name	Department/ Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Konstantinos Karageorgis	Senior Officer , Cyprus Ministry of Energy, Commerce and Industry	perm.sec@meci.gov.cy

#### 4. Discussion notes

- Members of the SEIIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Members of the Ministry of Energy, Commerce and Industry presented their mission, governmental strategy and vision towards Smart Industry.
- A discussion was held revolving around national initiatives and programs in which CUT can submit proposals related to Smart Data Processing and Systems of Deep Insights
- In addition, the members of Ministry of Energy, Commerce and Industry presented the challenges and problems that stakeholders in Cyprus face. CUT members presented a series of solutions to those challenges through the research work that is conducted in DESTINI.
- Mr Karageorgis commented on the synergies between the two parties and invited the local members of the DESTINI consortium to take part in an upcoming event "Industrial Week".
- The two parties agreed to continue their discussions in the Ministry in Nicosia, if the covid-19 virus outbreak and the health protocols allows for physical presence, otherwise the meeting will be held via teleconferencing.

## 9. KPMG (Cyprus)

Approximately 4 meetings took place with KPMG from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

KPMG is a global network of independent member firms offering audit, tax and advisory services. The firms work closely with clients, helping them to mitigate risks and grasp opportunities. Member firms' clients include business corporations, governments and public sector agencies and not-for-profit organizations. They look to KPMG for a consistent standard of service based on high order professional capabilities, industry insight and local knowledge. KPMG member firms can be found in 153 countries and territories. Collectively they employ 207,000 people across a range of disciplines. Through helping other organizations mitigate risks and grasp opportunities, KPMG can drive positive, sustainable change for clients, KPMG's people and society at large. KPMG leads with a commitment to quality and integrity across the KPMG global organization, bringing a passion for client success and a purpose to serve and improve the communities in which KPMG firms operate.

### 2. Subject / Short Description

Open Discussion with KPMG for future collaboration on BPM

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	<a href="mailto:andreas.christoforou@cut.ac.cy">andreas.christoforou@cut.ac.cy</a>
Panagiotis Christodoulou, PhD	CUT / Cyprus	<a href="mailto:paa.christodoulou@edu.cut.ac.cy">paa.christodoulou@edu.cut.ac.cy</a>
Michalis Pingos, PhD Candidate	CUT / Cyprus	<a href="mailto:michalis.pingos@cut.ac.cy">michalis.pingos@cut.ac.cy</a>
Spyros Loizou, PhD Candidate	CUT / Cyprus	<a href="mailto:spyros.loizou@cut.ac.cy">spyros.loizou@cut.ac.cy</a>

Elia Kouzari, PhD Candidate	KPMG Cyprus	<a href="mailto:elia.kouzari@kpmg.com.cy">elia.kouzari@kpmg.com.cy</a>
Petros Sorokkos	KPMG Cyprus	<a href="mailto:petros.sorokkos@kpmg.com.cy">petros.sorokkos@kpmg.com.cy</a>
Prof. Ioannis Stamelos	Aristotle University of Thessaloniki	<a href="mailto:stamelos@csd.auth.gr">stamelos@csd.auth.gr</a>

#### 4. Discussion notes

- Members of the SeilS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- KPMG Cyprus presented their company's profile as well as their work on Business Process Mining (BPM) and their previous experience with research proposals
- KPMG and Professor Ioannis Stamelos showed interest to participate to upcoming events, such as the 2<sup>nd</sup> DESTINI school by presenting to the general public and other stakeholders their research and academic experience on BPM
- KPMG shared their research and core knowledge on BPM with the members of SeilS Laboratory
- KPMG utilizes various BPM tools in their daily activities and decided to share some of these processes with the members of CUT
- KPMG showed interest in participating with DESTINI's team in European proposals
- Both parties agreed to investigate the possibility of
  - (a) Submitting proposals in the context of national call of the Cypriot Research and Innovation Foundation under the pillar Research in Enterprises with thematology revolving around intelligent tools for BPM
  - (b) Developing more user-friendly and open tools for basic operations in BPM, such as data importing/exporting, mining, automatic creation of process models, conformance checking etc. A possible way to do this is through final year projects of students at CUT.

## 10. SOFTONE

Approximately 5 meetings took place with SoftOne from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

SOFTONE is a leading group of business software companies, focused on the development, provision and support of ERP & CRM solutions, Cloud & Mobility services, Professional Accounting solutions, Electronic Invoicing & EDI services.

Today, SOFTONE GROUP employs 320 technology experts and industry professionals. The company's award-winning applications and solutions are used by more than 47,000 businesses and are supported through a Network of 600 partners in five European countries.

Being one of the first software vendors in Europe to offer its ERP solution as a cloud service (SaaS), SOFTONE GROUP is the undisputed leader of the Greek Cloud ERP market and a decisive player in Southeast Europe with more than 4,500 Software as a Service installations..

### 2. Subject / Short Description

Open Discussion with Softone for future collaboration

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy

Tryphon Papazoglou	Director, SoftOne Cyprus	tpapazoglou@softone.com.cy
Valachis Dimitris	SoftOne Cyprus	dvalachis@softone.com.cy

#### 4. Discussion notes

- Members of the SEiIS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Mr. Papazoglou, on behalf of SoftOne made a brief introduction to SoftOne's activities and portfolio of software systems
- Prof. Andreou presented DESTINI to the members of SoftOne and focused on the role that smart data processing plays in the area of Business Process Mining (BPM)
- During the open discussion the need for an efficient decision support BPM tool that will utilize AI/CI techniques over event logs captured from various business processes emerged; thus members of the two organizations decided to find a common ground on working on the development of such tools
- Starting point will be to share datasets (logs from SoftOne to DESTINI) to enable a first level of investigation and proof-of-concept of certain ideas put on the table for process optimization and conformance checking.
- SoftOne showed interest in participating with DESTINI's team in preparing and submitting new proposals for EU funding



## 11. CYENS – CENTRE OF EXCELLENCE

Approximately 4 meetings took place with CYENS from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

The Research and Innovation Centre on Interactive Media, Smart System and Emerging Technologies – CYENS Centre of Excellence (formerly known as RISE), empowers knowledge and technology transfer in the region. CYENS CoE is supported by the European Commission, the Republic of Cyprus and its founding Partners, the Municipality of Nicosia, the Max Planck Institute for Informatics (MPI), University College London, the University of Cyprus, the Cyprus University of Technology and the Open University of Cyprus.

CYENS, as a Centre of Excellence, cultivates a culture of innovation and creativity in an inspiring environment filled with academics, researchers, creative and onward-looking people, innovators, entrepreneurs, and practitioners. The Centre operates under the motto “Inspired by Humans Designed for Humans” with the vision to produce world class research that drives innovation towards social and economic benefit while conducting excellent, internationally competitive scientific research in the areas of visual sciences, human factors and design, communication, and artificial intelligence. It sets out to meet the challenge with a total potential funding of more than 30 million Euros for the first 7 years, from a Horizon 2020 Teaming Action and multiple other sources, and a business plan for long-term sustainability and growth.

### 2. Subject / Short Description

Open Discussion with CYENS for future collaboration

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy

Michalis Pingos, PhD Candidate	CUT / Cyprus	26otmail26.pingos@cut.ac.cy
Prof. George Chrysanthou	Director, CYENS	y.chrysanthou@gmail.com

#### 4. Discussion notes

- Members of the SeilS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- CYENS presented their Research and Innovation Centre on Interactive Media, Smart Systems and Emerging Technologies
- CYENS showed tremendous interest to participate into the 1<sup>st</sup> DESTINI school by presenting to the general public and other stakeholders their academic center and research work conducted thus far
- CYENS applies AR/VR technology in their research, thus they could collaborate with CUT's team in order to investigate more about Digital Twins and Visual Queries
- CYENS has many datasets on smart cities and applications that can be part of DESTINI's experiments
- The two parties agreed that there will be follow-up meetings in the near future to investigate how members of the two teams can be exchanged so as to start a collaboration on common scientific axes identified (AR, VR, Digital Twins, Smart Cities)

## 12. ERATOSTHENES CENTER OF EXCELLENCE (CoE)

Approximately 5 meetings took place with ERATOSTHENES CoE from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

A new, autonomous, and self-sustained Centre of Excellence, namely ERATOSTHENES Centre of Excellence of the Cyprus University of Technology has been established through the 'EXCELSIOR', H2020 Widespread Teaming Phase 2 project. The newly established center has been created as a result of upgrading the existing Remote Sensing and Geo-Environment Lab, which has been operating within the Department of Civil Engineering and Geomatics of the Cyprus University of Technology since 2007.

The vision of the ERATOSTHENES Centre of Excellence is to become a world-class Digital Innovation Hub for Earth Observation, space technology and Geospatial Information and to be the reference Centre in the Eastern Mediterranean, Middle East, and North Africa.

The Digital Innovation Hub will create an ecosystem which combines state-of-the-art remote sensing, data management and processing technologies, cutting – edge research opportunities, targeted education services and promotion of entrepreneurship. In order to be dynamic and innovative, the Digital Innovation Hub will be based on two major infrastructures, which are a Satellite Ground Receiving Station and a Ground-based atmospheric remote sensing station. ERATOSTHENES Centre of excellence is paving the way for Cyprus to enter the space arena.

### 2. Subject / Short Description

Open Discussion with Eratosthenes Centre of Excellence (CoE) for future collaboration

### 3. Attendees

Name	Department/Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy

Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Prof. Diofantos Chadjimitsis	Director, Eratosthenes CoE	phaedon.kyriakidis@cut.ac.cy
Prof. Phaedon Kyriakidis	Eratosthenes CoE	d.hadjimitsis@cut.ac.cy
Prof. Christos Danezis	Eratosthenes CoE	chris.danezis@cut.ac.cy

#### 4. Discussion notes

- Members of the SEiS Laboratory presented the DESTINI project and its main research areas to the members of Eratosthenes' staff
- Eratosthenes' researchers presented their center of excellence, and described its mission along its main research pillars
- Members of both teams Identified common ground for collaboration in applications in the following topics
  - Smart Processing for Space Data
  - Smart Earth Data services & Applications for
    - collection, storing, management, processing, visualization and analytics of earth data, as well as its transformation into valuable insights via intelligent algorithms and techniques
- Eratosthenes center showed interest in participating with DESTINI's team in other European proposals
- The director of Eratosthenes invited prof. Andreou to present DESTINI to the technical partners of the consortium of the CoE which was accepted
- The two parties agreed to share experiences on the common ground identified and keep a close contact, through their research teams, to initiate a scientific and research collaboration in the near future (that is, after Eratosthenes CoE becomes financially independent) which may include hiring new personnel that will act as a bridge between the two teams

## 13. DIGITAL CULTURAL HERITAGE RESEARCH LABORATORY (CUT)

Approximately 5 meetings took place with DCH from which the most significant notes and minutes of the online meetings are given below:

### 1. Profile

The Digital Heritage Research Lab was established in 2013 at the Department of Electrical Engineering and Information Technology of the Cyprus University of Technology. The lab is devoted to research on the digitization, documentation, archiving, preservation, protection and promotion of the tangible and intangible Cultural Heritage remains of our past.

### 2. Subject / Short Description

Open Discussion with Digital Heritage Research Laboratory for future collaboration

### 3. Attendees

Name	Department/ Division	E-mail
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy
Andreas Christoforou, PhD	CUT / Cyprus	andreas.christoforou@cut.ac.cy
Panagiotis Christodoulou, PhD	CUT / Cyprus	paa.christodoulou@edu.cut.ac.cy
Spyros Loizou, PhD Candidate	CUT / Cyprus	spyros.loizou@cut.ac.cy
Michalis Pingos, PhD Candidate	CUT / Cyprus	michalis.pingos@cut.ac.cy
Prof. Marinos Ioannides	CUT -DCH / Cyprus	marinos.ioannides@cut.ac.cy

Prof. Kyriakos Efstathiou	CUT -DCH / Cyprus	kyriakos.efstathiou@cut.ac.cy
---------------------------	----------------------	-------------------------------

#### 4. Discussion notes

- Members of the SEiS Laboratory presented the DESTINI project along with its main research areas to the stakeholder's staff
- Digital Cultural Heritage Laboratory (DCHL) members presented their center along with its main research pillars
- DCHL showed tremendous interest to participate into the 1<sup>st</sup> DESTINI school by presenting to the general public and other stakeholders their academic center and research work
- Digital Heritage Research Laboratory showed interest in participating with DESTINI's team in other European proposals
- Extensive discussions were held revolving around the development of a new master program on Digital Cultural Heritage, an obligation of the DCHL in the context of their ERA Chair ongoing project Mnemosyne. The two parties analyzed the potential of collaborating in this new program and joining forces so as to offer a modern and attractive curriculum that will be benefitted by the thematology of DESTINI. More specifically, it was agreed to work together to form the structure of the master and the syllabi of specific courses pertaining to data analysis, governance, management and processing to induce smartness. This collaboration will start in the upcoming weeks and is expected to produce the full program by the end of 2021.

## 14. Conclusions

This deliverable, which is part of Workpackage 4, presented the minutes and notes from several meetings that took place between members of DESTINI and other local stakeholders. In total thirteen (13) companies and (semi)governmental organizations participated in these meetings, usually on a one-to-one basis and through teleconferencing due to the covid-19 virus outbreak restrictions. The purpose of the meetings was to discuss the role of smart data processing in different business and market contexts, and exchange thoughts about challenges and research ideas to tackle them. The main outcome of the meetings was a strong interest expressed by the involved stakeholders in participating in DESTINI's research activities as they felt that these activities may greatly benefit their line of business. In all cases various topics for future collaboration were identified, while follow-up meetings were decided in the next few months to investigate the specific challenges discussed in each case.