

Grant Agreement n. 692162

FOWARIM

Fostering Water-Agriculture Research and Innovation in Malta

**Summer School**

**4th – 7th of September 2017**

**Malta College of Arts, Science & Technology Main Campus  
(Triq Kordin, Paola, PLA9032 Malta)**



## Table of Contents

<b>1. Summer School at a glance.....</b>	<b>3</b>
<b>2. How to reach Malta College of Arts, Science &amp; Technology Main Campus .....</b>	<b>5</b>
<b>3. Speakers and lecturers list.....</b>	<b>6</b>
<b>4. Summer School Agenda.....</b>	<b>7</b>

## 1. Summer School at a glance

Water is vital for life on Earth. A healthy water sector is critical to economic growth and competitiveness. Complex water-security challenges that Europe is facing forced the European Union to provide sufficient investments for the latest water treatment technologies, recycle and re-use water<sup>1</sup>. Therefore, raising awareness among policy makers, the business community, non-government organisations, academia, and society is a crucial step to enable the full exploitation of water treatment technologies.

FOWARIM Summer School aims to enhance the potential of Malta College of Arts, Science & Technology to run national and international scientific research projects in water agriculture through a joint summer school. This Summer School stimulates learning not only through the cases of success but also through failures.

The FOWARIM project – Fostering Water-Agriculture Research and Innovation in Malta – ([www.fowarim.eu](http://www.fowarim.eu)) objective is to strengthen the research capacity of the Malta College of Arts, Science & Technology's (MCAST) Water Research and Training Centre in 4 crucial themes related to the field of water use in agriculture:

- Decreasing Water Demand;
- Making Use of Alternative Sources of Water;
- Renewable Desalination, On-Farm Desalination, and Utilization of Saline Water;
- Decreasing Negative Environmental Externalities Caused by Nutrient-Rich Farm Waters.

FOWARIM is a Coordination and Support Action (CSA) project that has received funding from the European Union's Horizon 2020 Programme for Research and Innovation under Grant Agreement no 692162. The project will be implemented within 36 months from 1<sup>st</sup> January 2016 until 31<sup>st</sup> December 2018. Following seven members of consortia are implementing the FOWARIM project: Malta College of Arts, Science & Technology (Coordinator, Malta), Ministry for Sustainable Development, the Environment and Climate Change (Malta), International Center for Advanced Mediterranean Agronomic Studies – Mediterranean Agronomic Institute of Bari (Italy), Europe for Business Ltd (United Kingdom), Cranfield University (United Kingdom), Technical University of Catalonia (Spain).

### ***1<sup>st</sup> Module: Water Management, Governance, and Policy***

**Objective:** give to the participants a clear snapshot of European Water Management, Governance, and Policy by explaining the most important European Union Directives related to water and analysing Global Water Governance (GWG) through best practices

**Methodology:** theoretical and practical approach, studying funded projects

**Duration:** 1 day

---

<sup>1</sup> European Commission, "Science for Environment Policy. Future Brief: Innovation in the European water sector." Issue10, February 2015. Retrieved from [http://ec.europa.eu/environment/integration/research/newsalert/pdf/innovation\\_european\\_water\\_sector\\_FB10\\_en.pdf](http://ec.europa.eu/environment/integration/research/newsalert/pdf/innovation_european_water_sector_FB10_en.pdf)

### **2<sup>nd</sup> Module: Innovative Water Technologies**

Objective: give to the participants a clear snapshot of the most important and innovative Water Technologies, examining the following ‘state-of-the-knowledge’: Environmental Impact Assessment on Aquatic Media, Water and Energy, Water Reuse and Groundwater Restoration

Methodology: Best practice approach, studying funded projects and visiting important centers in Malta; a SMEs working in water agriculture area

Duration: 2 days

### **3<sup>rd</sup> Module: Research and Innovation support to young researchers and SMEs**

Objective: provide participants with the concepts, methodologies, and tools for improving their competitiveness. Particular attention on IPR – Intellectual Property Rights

Methodology: best practice approach and visiting the Water Research and Training Centre (MCAST). Senior speakers will guide participants to tune their ideas according to the contents learned during the module, transferring a methodology that will help companies to systematise their innovation activities

Duration: 2 days

**Summer School Organizer:**



**In partnership with:**



**environment.gov.mt\***

**Summer School Supporter:**

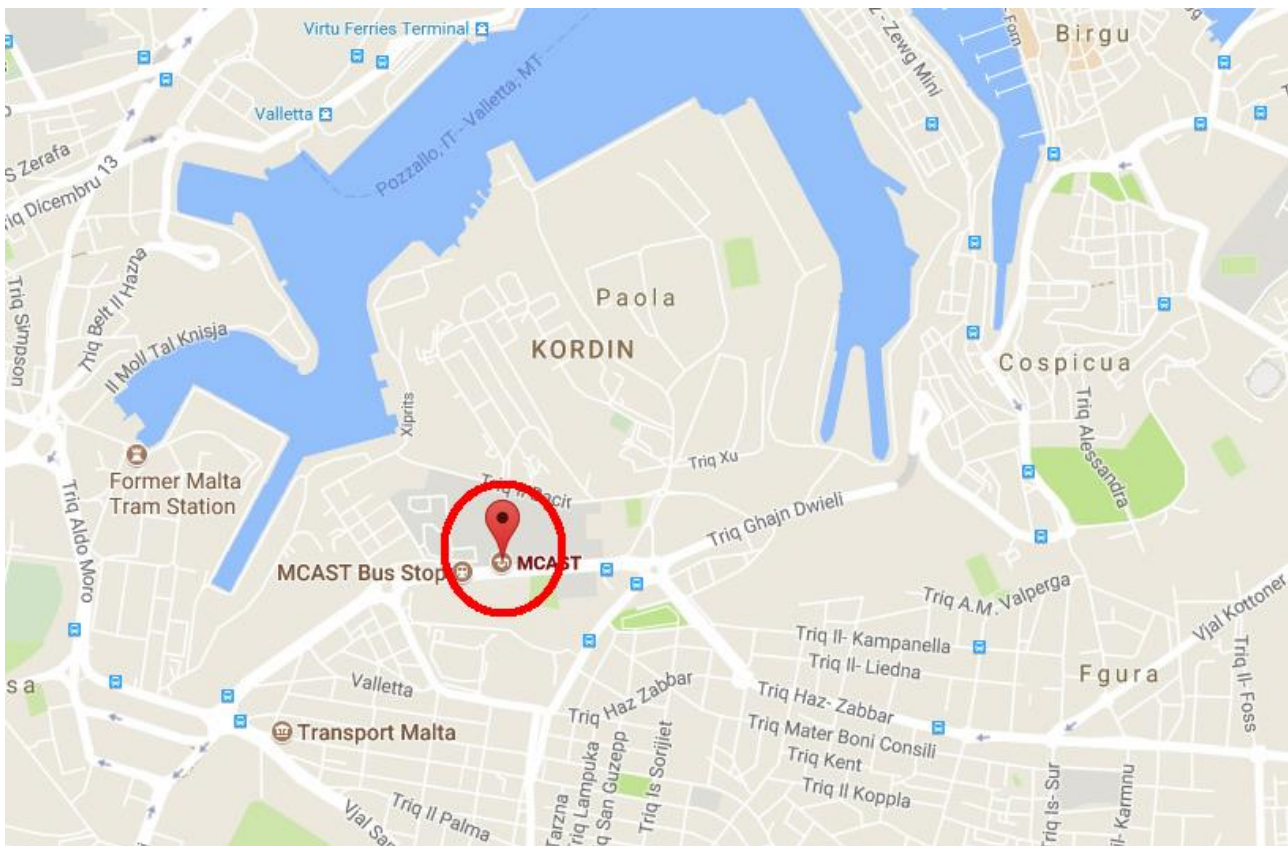


**Communication and Dissemination:**



## 2. How to reach Malta College of Arts, Science & Technology Main Campus

Malta College of Arts, Science & Technology (MCAST) Main Campus  
 Triq Kordin  
 Paola, PLA9032  
 Malta  
 T: +356 23987100  
 E: [information@mcast.edu.mt](mailto:information@mcast.edu.mt)



### By bus:

Start	Line	End
Malta International Airport	On foot (2 mins)	Airport 3
Airport 3	Bus X3 direction Bugibba (8 stops, 14 mins), or bus X2 direction San Giljan (8 stops, 14 mins).	Lourdes Bus Stop
Lourdes Bus Stop	On foot (5 mins)	MCAST Main Campus

### 3. Speakers and lecturers list

Name	Surname	Organization
Dr Philippe	Ker Rault	Wageningen University
Dr Lucila	Candela	Technical University of Catalonia
Nicola	Tucci	INNOLABS Srl
Daniela R.	D'Agostino, Ph. D.	CIHEAM-Mediterranean Agronomic Institute of Bari
Malcolm	Borg	Malta College of Arts, Science & Technology
Dr Lola	Rey Vicario	Cranfield University
Eglé	Juospaitytė	Europe for Business Ltd
Durk	Krol	Water Supply and Sanitation Technology Platform (WssTP)
Richard	Tavares	Water Joint Programming Initiative
Dr Kevin	Gatt	University of Malta
Dr David	Haro Monteagudo	Cranfield University
Manuel	Sapiano	Energy and Water Agency
Dr Alex	Rizzo	Malta College of Arts, Science & Technology
Stephen	Zammit	Water Services Corporation
Valentina	Zoccali	ID Consulting
Paolo	Nouvion	ID Consulting
Marco	Dimech	Ministry for Sustainable Development, the Environment and Climate Change – Agriculture Directorate

## 4. Summer School Agenda

### Day 1: September 4<sup>th</sup> 2017

**Lecture room: 206, Insitute of Applied Sciences**

- 08:30 – 09:00 Registration & Coffee
- 09:00 – 09:15 **Welcome – Introduction** (Module I)  
**Objective:** Introduction to the agricultural sector in Malta, its strategic priorities and sustainable development.  
**Speaker:** Marco Dimech, Manager at Rural Development Department – Agriculture Directorate (Santa Venera, Malta)
- 09:15 – 09:30 **Welcome and presentation on the FOWARIM project, its results, and outcomes** (Module I)  
**Objective:** Overview of the Horizon 2020 project, and its general achievements.  
**Speaker:** Malcolm Borg, FOWARIM project Coordinator and Deputy Director at Institute of Applied Sciences – Centre for Agriculture, Aquatics and Animal Science at Malta College of Arts, Science & Technology (Qormi, Malta)
- 09:30 – 09:45 **1<sup>st</sup> Summer School opening – why water-agriculture sectors matter?** (Module I)  
**Objective:** A brief introduction and context-setter which covers the summer school agenda and central objectives.  
**Speaker:** Eglè Juospaitytė, Project Manager at Europe for Business Ltd. (London, United Kingdom)
- 09:45 – 10:30 **A common vision for water research and innovation. A case study of the European water platform** (Module I)  
**Objective:** Provide an overview of the European Water Platform and give an examples of research projects supported and/or inspired by the European Water Technology Platform. Overview of integrate solutions for rural end-user needs.  
**Speaker:** Durk Krol, Executive Managing Director at Water Supply and Sanitation Technology Platform (WssTP) (Brussels, Belgium)
- 10:30 – 11:15 **The activities of the Joint Programming Initiatives FACCE and Water on water and agriculture challenges** (Module I)  
**Objective:** Highlight the Joint Programming Initiatives’ objectives and activities in the field of the summer school. In particular, the results of the

WaterWorks2015 call and the outcomes of the FACCE/Water JPI joint workshop will be developed and the future activities as a possible knowledge hub on this field will be introduced.

**Speaker:** Richard Tavares, International Scientific Project Manager at Water Joint Programming Initiative (JPI) (Paris, France)

*11:15 – 11:30 Coffee Break*

11:30 – 13:00 **Using economic instruments in water allocation reforms: reviewing European experiences** (Module I)

**Objective:** Review how economic instruments (water charges, subsidies, trading) can contribute to solve water allocation issues in different contexts.

**Speaker:** Dr Lola Rey Vicario, Lecturer in Water Policy and Economics, Cranfield Water Science Institute (CWSI) at Cranfield University (Cranfield, United Kingdom)

The lecture will be held online.

*13:00 – 14:00 Lunch Break*

14:00 – 14:45 **Water Governance as the Foundation for Sustainable Water Resources Management** (Module I)

**Objective:** Understand what water governance is about, the challenges its mainstreaming can propose as well as to put forward a model for its implementation.

**Speaker:** Dr Kevin Gatt, Lecturer at University of Malta (Msida, Malta)

14:45 – 15:30 **Malta's 2<sup>nd</sup> Water Catchment Management Plan** (Module I)

**Objective:** Analyse Malta's 2<sup>nd</sup> Water Catchment Management Plan (WCMP) and identify aspects of interest to the agricultural sector. Such aspects will tackle issues such as water demand and availability assessments, water resources status assessments and the WCMP's Programme of Measures. The need for increased synergies between the WCMP and development/strategic plans for the agricultural sector will be assessed, provided agriculture's role as one of the main water users in the Maltese islands.

**Speaker:** Manuel Sapiano, Chief Technical Officer (Water) at the Energy and Water Agency (Luqa, Malta)

*15:30 – 16:00 Coffee Break*

16:00 – 16:45 **Water research infrastructure in Malta** (Module I)

**Speaker:** Dr Alex Rizzo, Head of University College at Malta College of Arts, Science & Technology (Paola, Malta)

16:45 – 17:30 **New Water** (Module I)



**Speaker:** Stephan Zammit, Professional at Water Services Corporation (Luqa, Malta)

17:30 **FOWARIM Summer School end of the 1<sup>st</sup> day session**

**Day 2: September 5<sup>th</sup> 2017**

**Lecture room: 209, Insitute of Applied Sciences**

09:00 – 10:00 **How the FOWARIM project can be supported through e-learning platform?**  
(Module III)

**Objective:** Introduce to the participants the e-learning course developed under the FOWARIM project. Give an overview of 4 modules related to water management and research.

**Speaker:** Egle Juospaityte, Project Manager at Europe for Business Ltd. (London, United Kingdom)

10:00 – 11:00 **Drought risk indicators and monitoring for agriculture** (Module II)

**Objective:** Discuss the definition of drought and the need for monitoring. Introduce the most widespread drought indicators and indices used worldwide. Compare a number of drought monitoring systems.

**Speaker:** Dr David Haro Monteagudo, Research Fellow in Agricultural Water Management, Cranfield Water Science Institute (CWSI) at Cranfield University (Cranfield, United Kingdom)

The lecture will be held online.

11:00 – 11:30 *Coffee Break*

11:30 – 13:00 **Water and agriculture** (Module II)

**Objective:** Technical and regulatory aspects of water use and reuse in agriculture and agri-food industries. Water reuse, strategy, tools and technologies for reuse improvement.

**Speaker:** Dr Lucila Candela, Professor at Technical University of Catalonia (Barcelona, Spain)

13:00 – 14:30 *Lunch Break*

14:30 – 16:00 **Visit to MCAST Water Research and Training Centre at Institute of Applied Sciences** (Module I-II)

**Objective:** practical demonstration

16:00 **FOWARIM Summer School end of the 2<sup>nd</sup> day session**

**Day 3: September 6<sup>th</sup> 2017**

**Lecture room: 206, Insitute of Applied Sciences**

- 09:00 – 10:00      **Instruments to develop water-agriculture ideas** (Module III)  
**Objective:** Give to participants adequate knowledge on the correct way to develop a water-agriculture idea: project planning, development on the ground, follow-up.  
**Speaker:** Dr Philippe Ker Rault, MENA Africa Coordinator, Water-Energy-Food Nexus at Wageningen University (Wageningen, Netherlands)
- 10:00 – 10:45      **Application of a hydrological modelling tool in a semi-arid region for agriculture water management** (Module II)  
**Objective:** Give to participants knowledge on the use of a hydrological Modelling Tool for water balance assessment at large scale in the field of Agriculture Water Management in areas characterized by water scarcity.  
**Speaker:** Daniela D’Agostino Ph. D., Scientific Consultant and Researcher at CIHEAM-Mediterranean Agronomic Institute of Bari (Bari, Italy)  
The lecture will be held online.
- 10:45 – 11:30 *Coffee Break*
- 11:30 – 13:00      **Technologies for water management and treated water reuse in agriculture** (Module II)  
**Objective:** Provide an overview of technologies for water management in agriculture including open field, greenhouse and irrigation with non-conventional water.  
**Speaker:** Dr Philippe Ker Rault, MENA Africa Coordinator, Water-Energy-Food Nexus at Wageningen University (Wageningen, Netherlands)
- 13:00 – 14:30 *Lunch Break*
- 14:30 – 16:00      **Science communication and the EU projects: theories, techniques and best practices** (Module III)  
**Objective:** An overview of theories and techniques of science communication taking into account the results achieved in different scientific projects.  
**Speaker:** Valentina Zoccali and Paolo Nouvion, Communication Consultants at ID Consulting (Brussels, Belgium)
- 16:00                **FOWARIM Summer School end of the 3<sup>rd</sup> day session**

## Day 4: September 7<sup>th</sup> 2017

Lecture room: 209, Insitute of Applied Sciences

- 09:00 – 10:00 **Introduction of the European Union funding for research and innovation in water and agriculture sectors** (Module III)
- Objective:** Get familiar with the European Union funding scemes for research and innovation proejects for young researchers.
- Speaker:** Eglè Juospaitytė, Project Manager at Europe for Business Ltd. (London, United Kingdom)
- 10:00 – 11:00 **Sustainalbe business model canvas** (Module III)
- Objective:** Participants get familiar with the sustainable business model canvas concept in research and innovation projects.
- Speaker:** Nicola Tucci, Vice-President at INNOLABS Srl (Livorno, Italy)
- 11:00 – 11:30 *Coffee Break*
- 11:30 – 13:00 **Individual work on proposal idea, presentation and discussion of the proposals** (Module III)
- Objective:** Each participant will have opportunity to refine its initial water-agriculture idea according to his/her competences. Participants will be assisted by 1 senoir speaker during the work.
- Speaker:** Nicola Tucci, Vice-President at INNOLABS Srl (Livorno, Italy)
- 13:00 – 14:30 *Lunch Break*
- 14:30 – 16:00 **Review and discussion of ideas** (Module III)
- Objective:** At the end of the work, each participant will present its proposal to the peers generating a discussion.
- Speaker:** Nicola Tucci, Vice-President at INNOLABS Srl (Livorno, Italy)
- 16:00 – 16:30 **Keynote addresses and final reflections**
- Objective:** Final keynote addresses from the Coordinator of the FOWARIM project and the Directorate of Agriculture. Break-out discussions and reporting.
- Speaker:** Malcolm Borg, FOWARIM project Coordinator and Deputy Director at Institute of Applied Sciences – Centre for Agriculture, Aquatics and Animal Science at Malta College of Arts, Science & Technology and Marco Dimech, Manager at Rural Development Department – Agriculture Directorate
- 16:30 **End of the FOWARIM Summer School**