

# E<sup>3</sup>UDRES<sup>2</sup>

Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions

## **SESSION FIVE – WEEK FIVE**

**11 MAY 2023 – 18:30**

### **GOALS:**

**Present Prototyping to Challenger**

**Overview of poster and pitch preparation**



# E<sup>3</sup>UDRES<sup>2</sup>

Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions



## WARM UP





E<sup>3</sup>UDRES<sup>2</sup>

Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions



**PROTOTYPE PRESENTATION**

## PROTOTYPE PRESENTATION

1. EACH TEAM HAS 10 minutes to present their prototype.
2. Challenger will give feedback



**05:00**



# E<sup>3</sup>UDRES<sup>2</sup>

Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions



## **VIDEO PITCH**



- Can you share your ideas for your video pitch?
- Each team will present their ideas
  - the other team will give feedback
  - the challenger will give feedback
  - EE will give feedback

(360° feedback)

# E<sup>3</sup>UDRES<sup>2</sup>

Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions



**POSTER**

**EUDRES<sup>2</sup>**  
 Engaged and Entrepreneurial European University as  
 Driver for European Smart and Sustainable Regions

**How robotics can help the microalgae cultivation in bio-waste recycling.**  
 Ley T., Luță T., Marino N., Morar M., Soares A., Sudy G., Zulkarnain A.H.

**WHY MICROALGAE?**  
 Carbon dioxide, Water, Nutrients, Sunlight → Biofuel, Food, Pharmaceutical

**BIO-WASTE RECYCLING**  
 Agricultural bio-waste was used as a source of biomass to produce the nutritional liquid that feeds the microalgae.  
 Algal technology is effective recycling and valorization of nutrients.  
 ✓ Lower the waste treatment cost.  
 ✓ Reducing environmental impact.  
 ✓ Reduction of greenhouse gas emissions.

**MICROALGAE CULTIVATION**  
 Carbon dioxide, Nutritional liquid, Natural or Artificial light → Microalgae starter → Pigments, Proteins, Lipids, Carbohydrates → Photobioreactor

**PROJECT PROTOTYPE**  
 To control and measure how they grow, experimenting with using different types of bio-waste as a nutritional source, and to control the overall trial in the lab, was necessary to come up with a more automatic and less expensive method to measure parameters such as microalgae contaminations, pH, temperature and microalgae growth.  
 A simple system prototype to control and measure the growth factor of microalgae by robotics had been made.

**INFLUENCING FACTORS OF MICROALGAE GROWTH**  
 Light (Intensity and Wavelength), pH, Temperature, Nutrients, Movements

Control Box + WiFi, Sensor Box, Photo + pH + Temperature, Optical Fiber, Light Sensor, CO<sub>2</sub>, CO<sub>2</sub>

Educational Entrepreneurs - Carla Santos & Valentin Ciupe

- Can you share your ideas for your poster?
- Each team will present their ideas
  - the other team will give feedback
  - the challenger will give feedback
  - EE will give feedback

(360° feedback)

**EUDRES<sup>2</sup>**  
 Engaged and Entrepreneurial European University as  
 Driver for European Smart and Sustainable Regions

**I Living Lab baroXmedia Projection Mapping Stiff Melk**  
 MAY 2022

**Lessmers**  
 Cristian Bivol (UPT - ROMANIA)  
 David Permmeninger (STUPAS - AUSTRIA)  
 Nuno Rebelo (IPS - PORTUGAL)  
 Szeghi Szabolcs (MATE - HUNGARY)

**Education Entrepreneurs**  
 Patrícia Mezeio (IPS - PORTUGAL)  
 Christian Munk (STUPAS - AUSTRIA)  
 Lisa Reznik (STUPAS - AUSTRIA)

**Stakeholder**  
 Markus Wintersberger (AUSTRIA)

**1.Initial Challenge**  
 The goal of this ILL is to explore ways to bring Baroque Art to the 21st century using video-mapping and AI techniques.

**2.Design Thinking Methodology**  
 Design thinking is a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems, create innovative solutions, prototype and test.

**3.Prototypes**  
 Although being a more art-centric project, the 4 prototypes developed were ideas of the solution to the proposed challenge.

**4.Created Content - Results**  
 By combining classical baroque art with cyberpunk-esque styles (cytopian futuristic environment) and merging these ideas with AI generated tools, we were able to create some very thought-provoking and energetic imagery that were assembled into our final product: a video-mapping called Bringing Baroque Art to 21st century.

**5.Thoughts & Acknowledgments**  
 For 6 weeks, apart from developing our final product signed with the scope of this ILL, we developed several skills such as Design Thinking, Innovation, Communication, Cooperation, Self-determination, Self-Efficacy, Initiative, Self-Competence, and Performance. This have been achieved with the outstanding work done by all Lessmers and with the commitment of our EEs and our Stakeholder.

<https://eudres.eu>

E<sup>3</sup>UDRES<sup>2</sup>

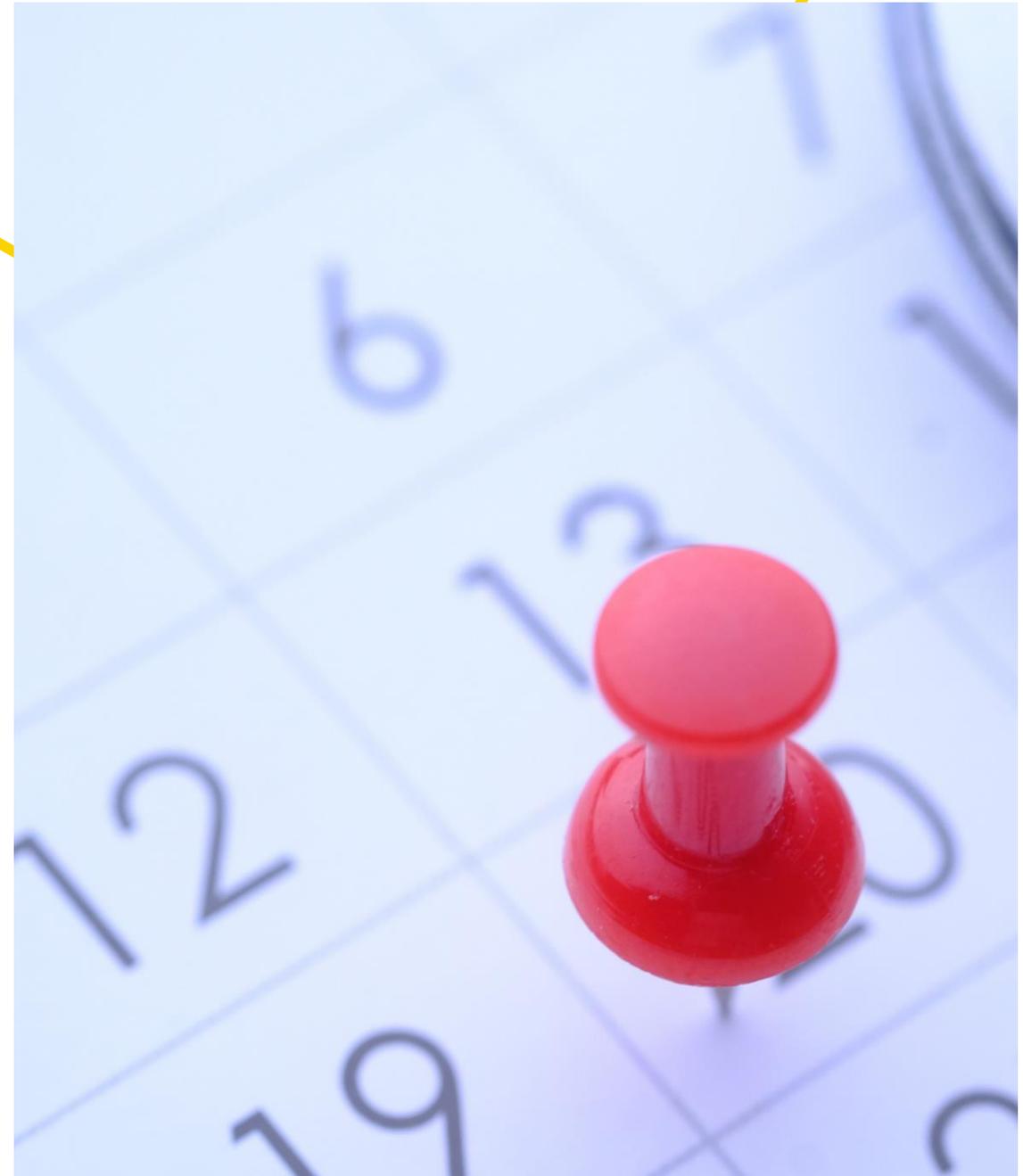
Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions



**DON'T FORGET...**

## IMPORTANT DATES

- Poster and Video Pitch – 19<sup>th</sup> May (deadline) to be submitted to the EUDRES WP3 ILLs Management.
- The E-Portfolio should be finished on 29 of May. -> You can work on the E-portfolio after 19<sup>th</sup> May



E<sup>3</sup>UDRES<sup>2</sup>

Engaged and Entrepreneurial European University as  
Driver for European Smart and Sustainable Regions



**SEE YOU NEXT THURSDAY!**