

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

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

## 3. E<sup>3</sup>UDRES<sup>2</sup> Learners & Educators

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<b>Deliverable nr.</b>	<b>Deliverable name</b>	<b>Person responsible</b>	<b>Corresponding HEI</b>
D3.10 – D37	Visual narrative of 54 transnational pilot   Living Labs of 6 students led by educational entrepreneurs	WP3 Lead	UCLL

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## **1. Introduction**

Included you can find our visual narrative of 54 transnational pilot I Living Labs of 6 students led by educational entrepreneurs for the WP3 Deliverable 3.10 D.37

### **1.1 Introduction to the 54 ILL**

The scale-up from round 3 to round 4 provided us with a great challenge. To manage 54 I Living Labs with associated the big group of Educational Entrepreneurs, challenge owners and students resulted in seeking innovative solutions. The goal was to keep the diversity between the 3 types of I Living Labs that we have created in the past. We wanted to ensure that the students could choose the best option and experience the best learning path possible.

#### ***The way to the I Living Labs Round 4***

Every round of I Living Labs starts with finding/creating the right group of Educational Entrepreneurs, engaging the regional challenge owners and reaching the students.

### **1.2 Similarities between round 3 and 4**

As already mentioned the goal was to keep the diversity between the already 3 existing possible options of I Living Labs for the students. To retain these possibilities, we started with the following diverse I Living Labs.

#### **1.2.1 The classic I Living Labs**

Due to the fact that it is not possible to travel for all students this option of the classic I Living Lab will remain an important way for the students to engage in another way of learning.

In round 3 we already doubled some classic I Living Labs and we recognized the opportunities that this would give for the EE's, challenge owners and the students. EE's could explore more in group and co-work with EE colleagues. For the students, this would also be a great benefit because of the possibility to work more in a team with different profiles. The challenge owner could have 1 challenge but 2 different outcomes. So advantages for all partners involved. In round 3 we started to work with the 6 batteries of change. We also deepened the concept of the 6 batteries of change in round 4. More explained in the E. differences.

We were absolutely impressed by some of the outcomes of round 3 that we even reused some of the round 3 challenges. The different outcomes of these reused challenges could be secured by the fact that working with other/new students would have a different learning path and therefore a different outcome.

Some new ideas of challenges occurred for example within the theme we had the creative AI with Audio-visual storytelling.

Within the different themes (more explained in the E. differences) 34 possible classic I Living labs were offered to the students but 18 classic I Living Labs actually took place.

The 34 offered classic I Living Labs to the students:

AMDU NT OF	Type of ILL	Topic	Theme	Travel	Challenge
1	COPY	CE	Green Campus	NO	How might we bring nature to campus to make it more vibrant? (Edible Campus)
2	COPY	CE	Green Campus	NO	Smart Campus - Energy efficiency on University Campus
3	COPY	CE	Green Campus	NO	"How might we contribute to food waste alleviation strategies on campus?"
4	COPY	CE	Green mobility	NO	The future of cities - green mobility in urban planning
5	COPY	CE	Green mobility	NO	How might we enhance cross-European students' exchange to support education & internship in the field of sustainable mobility - especially Railways?
6	COPY	CE	Green mobility	NO	How to make E-mobility sustainable
7	COPY	CE	Green mobility	NO	How to make E-mobility sustainable
8	COPY	CE	Green urban space	NO	Build and strengthen communities - How to use public space to empower participation and collectiveness
9	COPY	CE	Green urban space	NO	Build and strengthen communities - How to use public space to empower participation and collectiveness
10	COPY	CE	Green urban space	NO	Sustainable cities- can cities be friend of Biodiversity?
11	NEW ONLINE	CE	Circular Economy/Wildcard	NO	Smart digital solutions for sustainable food waste management
12	NEW ONLINE	CE	Circular Economy/Wildcard	NO	How to encourage sustainable fashion consumption?
13	NEW ONLINE	CE	Circular Economy/Wildcard	NO	How to encourage sustainable fashion consumption?
14	NEW ONLINE	CE	Circular Economy/Wildcard	NO	How can we produce healthier food with microalgae as a sustainable resource?
15	NEW ONLINE	CE	Circular Economy/Wildcard	NO	The challenge of Recycling, reuse and reshape of building components
16	COPY	Wellbeing	Mental Health & Youngsters	NO	Living Lab on the Students' Mental Health
17	COPY	Wellbeing	Mental Health & Youngsters	NO	Healthy Lifestyles for Youngsters
18	COPY	Wellbeing	Mental Health & Youngsters	NO	How to boost motivation of learners in higher education
19	COPY	Wellbeing	Mental Health & Seniors	NO	How can we encourage older people to volunteer to stay active and improve their mental health?
20	COPY	Wellbeing	Mental Health & Seniors	NO	How to Improve Healthcare Access for Elderly through Digitalisation
21	COPY	Wellbeing	Smart Health	NO	Physical power by smart food
22	COPY	Wellbeing	Smart Health	NO	Sustainable cities- can cities be healthy with Biodiversity?
23	NEW ONLINE	Wellbeing	Smart Health	NO	How might we use SMART FOOD to improve HEALTHY AGING?
24	NEW ONLINE	Wellbeing	Smart Health	NO	How might we improve healthcare with smart wearables?
25	COPY	Wellbeing	Smart Health	NO	Nutritional education for better food choices
26	NEW ONLINE	AI	Creative AI	NO	Audio-Visual Storytelling Elements in AI
27	NEW ONLINE	AI	Creative AI	NO	Audio-Visual Storytelling Elements in AI
28	NEW ONLINE	AI	Creative AI	NO	Integrate AI in education - like ChatGPT
29	NEW ONLINE	AI	Creative AI	NO	Integrate AI in education - like ChatGPT
30	NEW ONLINE	AI + CE	Creative AI	NO	Machine learning use-cases for sustainable agriculture and food quality
31	NEW ONLINE	AI + CE	Robotics	NO	Vertical Farms in Cities
32	COPY	AI + VB	Robotics	NO	AI and robots in wellbeing for disabled people
33	COPY	AI + VB	Robotics	NO	AI and robots in wellbeing for disabled people

## The 18 classic I Living labs that took place:

Theme	Travel	Challenge
Green Campus	NO	*How might we contribute to food waste alleviation strategies on campus?*
Green mobility	NO	The future of cities - green mobility in urban planning
Green mobility	NO	How to make E-mobility sustainable
Green urban space	NO	Build and strenghten communities - How to use public space to empower participation and collectiveness
Green urban space	NO	Sustainable cities- can cities be friend of Biodiversity?
Circular Economy Wildcard	NO	How to encourage sustainable fashion consumption?
Circular Economy Wildcard	NO	How can we produce healthier food with microalgae as a sustainable resource?
Mental Health & Youngsters	NO	Living Lab on the Students' Mental Health
Mental Health & Youngsters	NO	Healthy Lifestyles for Youngsters
Mental Health & Seniors	NO	How to Improve Healthcare Access for Elderly through Digitalisation
Smart Health	NO	Sustainable cities- can cities be healthy with Biodiversity?
Smart Health	NO	How might we use SMART FOOD to improve HEALTHY AGING?
Creative AI	NO	Audio-Visual Storytelling Elements in AI
Creative AI	NO	Audio-Visual Storytelling Elements in AI
Creative AI	NO	Integrate AI in education - like ChatGpT
Creative AI	NO	Machine learning use-cases for sustainable agriculture and food quality
Robotics	NO	Vertical Farms in Cities
Robotics	NO	AI and robots in wellbeing for disabled people

### 1.2.2 The Blended I Living Labs

Regarding the blended I Living Labs we experienced in round 3 the difference in personal–physical contact during the learning process. The blended I Living Lab has the same process as the classic I Living Lab but with 1 local week integrated where the students meet each other face-to-face. The blended I Living Lab was so successful in the 3 round that we decided to keep this way of working and even take on an extra topic.

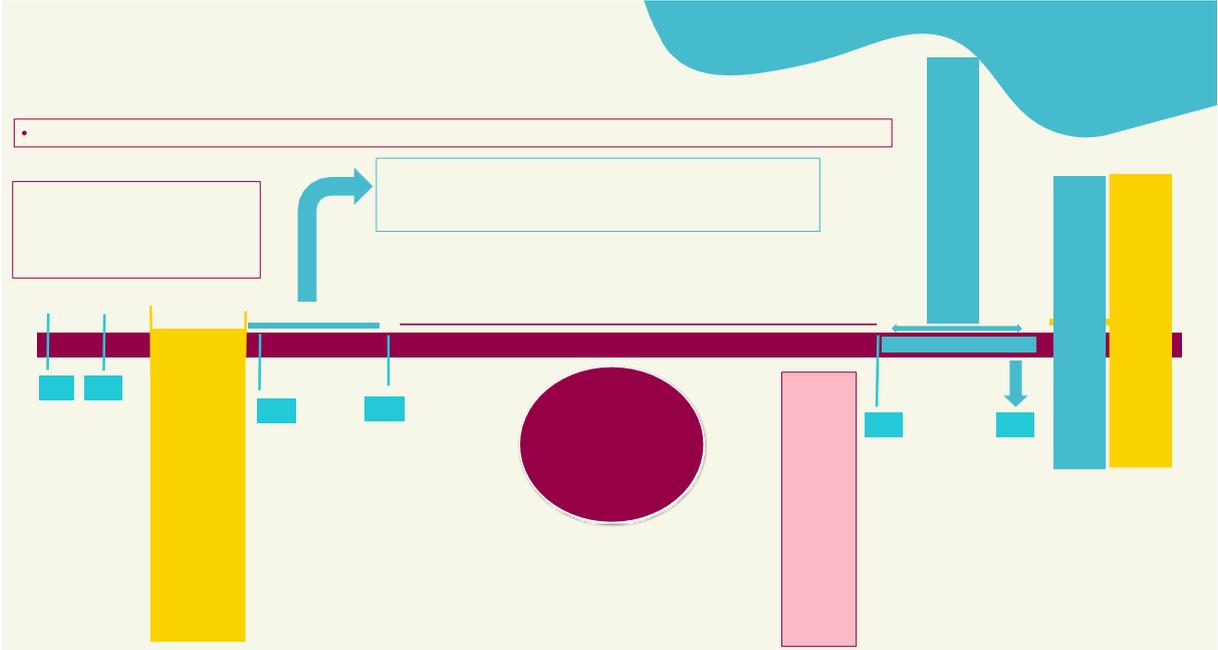
### 1.2.3 The Intensive I Living Labs

Based on the outcomes of Latvian Pilot intensive ILL, the decision was made to organise a second intensive ILL in the spring semester, involving local (ViA) and international EE`s from E<sup>3</sup>UDRES<sup>2</sup> partner universities in Austria, Belgium, Hungary, Portugal, Romania, and increasing the number of international students in order to foster the international collaboration between the students.

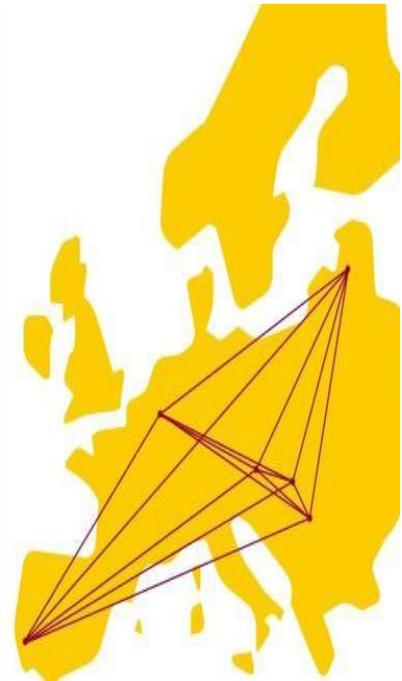
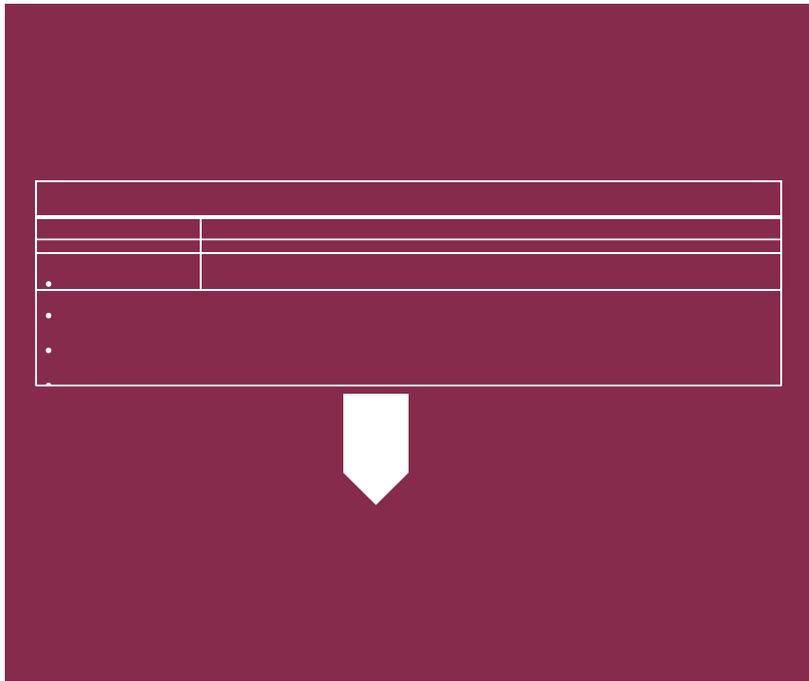
The main concept of intensive ILL remained the same – two weeks, consisting of one on-line training week and one on-site week.

If we look at the **similarities** from the point of view of the different types of persons that are involved in the I Living Labs we can summarize the following remarks.

1.2.4 For the EE's we kept the same process as of round 3. We welcomed the EE's on the 27<sup>th</sup> of January during the welcome day. After the welcome day, we held the EE fair. On this day the EE's could get to know each other and already see if there would be a connection between them.



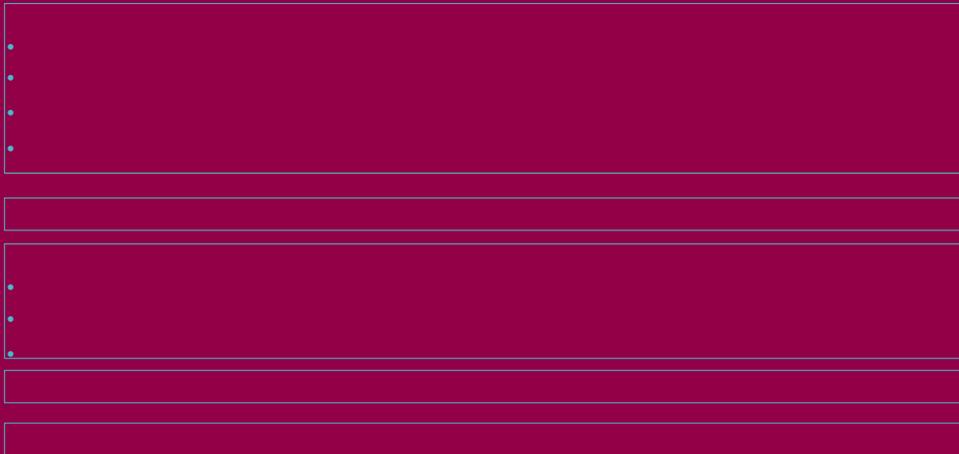
2-weekly meetings with the whole EE team. This communication system was already in place.



During the 2-weekly meetings all next steps were discussed and all necessary information was passed on to the present EE's. Remembering the fact that not all EE's can be present at these meetings, we also recorded every 2-weekly EE meeting and shared the presentations/ meeting minutes. The dates of the meetings can be found in 1.7.2 Meeting minutes of the Educational Entrepreneurs.

**1.2.5 For the students** we also kept the registration and communication process with clear communication before the start of the I Living Labs from the project team.

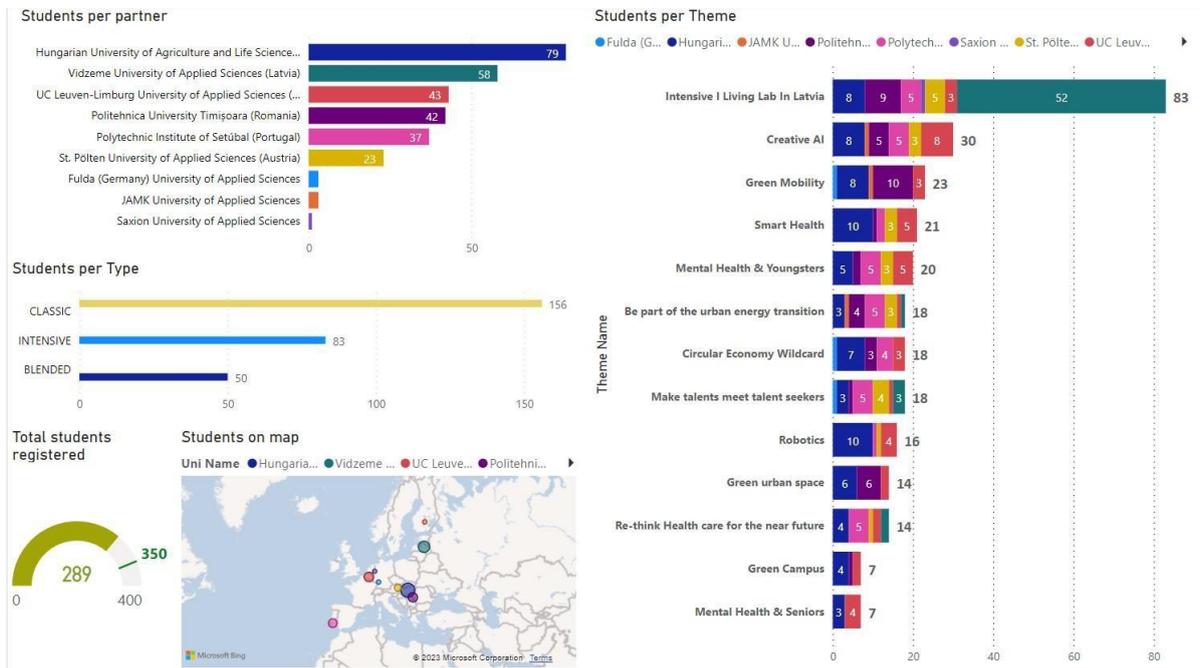
# Communication to students



After the start of the I Living Labs, the student only has direct contact with the EE. This is to ensure that a direct contact line is created and guarded. Until the showdown, the only contact between the project team and the students is if there is any specific IT issue that needs to be solved by the project team.

The communication between the EE and the student is done within the I Living Lab. We offer different types of communication like Unicampus, Teams, ... but the best way of communication is the way that fits the specific group. As so we do not stress the use of one specific tool.

For round 4 **we reached 289 students** to follow the incredible learning path of the I Living Labs.



### 1.2.6 For the stakeholders – challenge owners

Regarding to the challenge owners the HEI participants have promoted **E<sup>3</sup>UDRES<sup>2</sup>** with the regional stakeholders as much as possible. Due to the fact that in Round 4 we had to launch 54 challenges, Round 4 has proven to be a challenge in the area. Different initiatives within each institute where held to advertise the I Living Labs concept to the regional stakeholders. All I Living Labs succeeded in finding their perfect match.

## 1.3 Differences between Rounds 3 and 4

The concept of E<sup>3</sup>UDRES<sup>2</sup> is to explore, grow and keep on adapting the learning paths. We always try to enhance the process so some differences between round 3 and round 4 can be recognized.

### 1.3.1 For the Educational Entrepreneurs

For the EE's the way to start round 4 was challenging. Due to the fact that we intended to start with 54 I Living Labs, we created a new profile: the EE coach. The impact was foreseen to manage the 34 classic ILL. In this way, not 2 EE's but 1 EE would lead a specific ILL, but within a theme 1 very experienced EE would guide the other EE's. The idea was grown from the buddy concept that we did in the previous rounds. An experienced EE and a new EE combined would run the ILL. The concept of the EE coach is something that we want to explore more in E<sup>3</sup>UDRES<sup>2</sup> 2.0 because it was received as an important upgrade. Due to the fact that we organized 18 classic ILLs we did not really implement this new role.

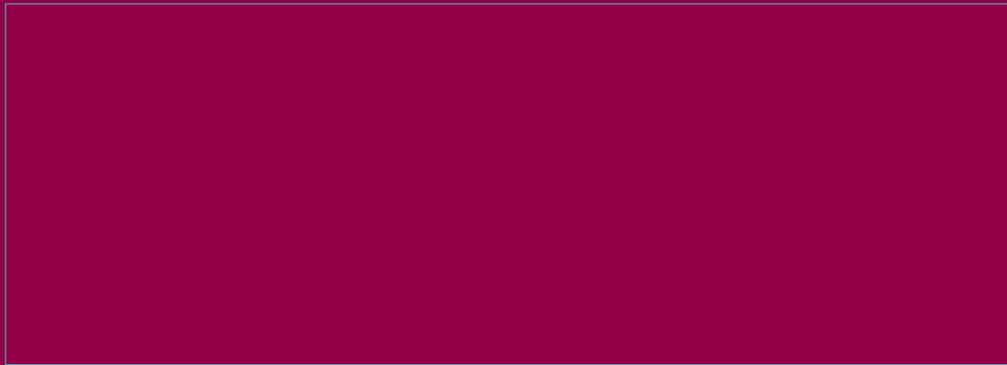


round 4  
challenges\_EE\_Overvie



We also made some small adaptations to the communications about the registration process. In round 3, the changes to the student lists were enormous. (students needing to change their given I Living Lab for another multitude of reasons) This took a lot of effort from the project team. To have a more clear view of the students that subscribed for the ILL we made a schedule of information. This turned out to be a very good idea. The effort of the project team was diminished with more than half of the time.

## Info about ILL Student lists



### 1.3.2 For the students

For the students, we changed several things between round 3 and round 4.

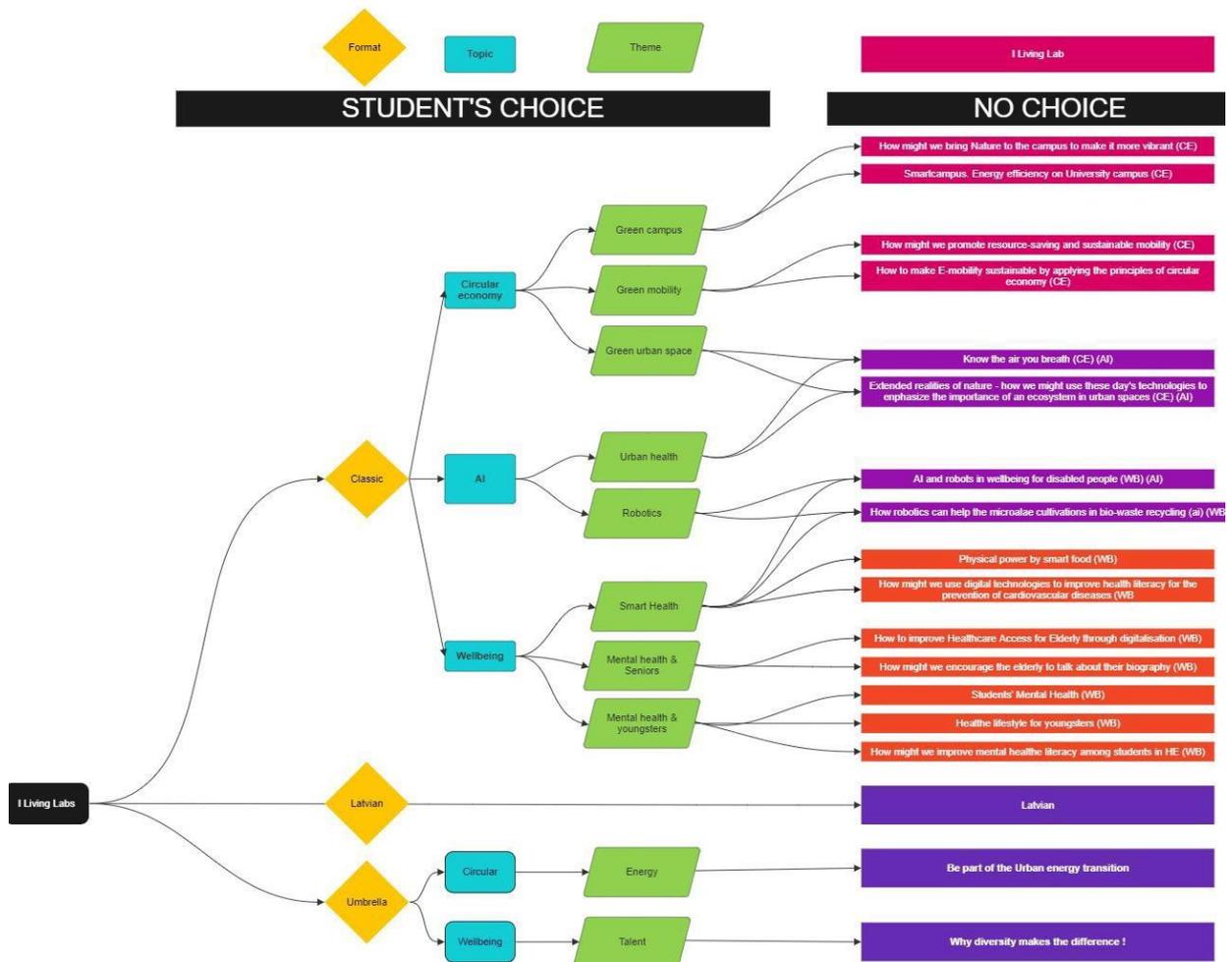
The first is that it would not be clear for a student to choose from 54 possibilities of I Living Labs. For this reason, we started a new concept: We introduced the “ I Living Labs per theme”. So the student only saw the theme of the I Living Lab and not the specific I Living Lab on the website. We had the following options.

#### **From topic to theme**

The 3 topics are still the same:

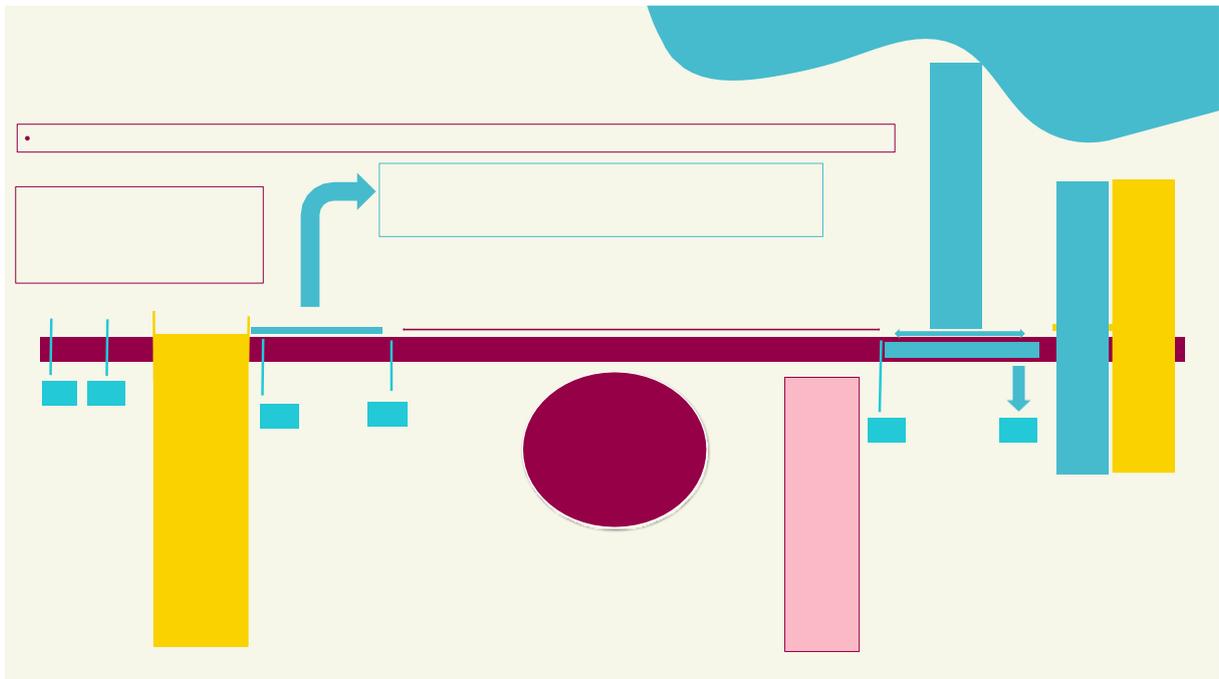
- Circular Economy,
- Active Aging and Wellbeing
- Artificial Intelligence

The themes were



ILivingLabs.pdf

The students together with the EE's would go from theme to challenge within the onboarding weeks.



Due to the fact that we integrated the 6 batteries of change in the theme concept, the students not only were ensured of the right theme regarding the education program but also we good created a specific group dynamic. Every student was asked to fill in the enquiry for the 6 batteries of change. After this, the students were divided into a team taking into account the profile that came out of the 6 batteries of change. This was a real game changer for the group dynamics in the classic I Living Labs. The fact that the only contact between the students, EE's and the stakeholders is online amplifies that a group dynamic is critical in the learning process.

A real group dynamic thanks to the 6 batteries of change combined with the right challenge for each student. This was really a game-changer and an upgrade. Due to this procedure with had fewer students who "wanted" to change between ILL because they did not see and know any specific details about the challenges. We would certainly implement this concept in some way in **E<sup>3</sup>UDRES<sup>2</sup>**.

Another difference between rounds 3 and 4 is that we enlarged the time to register for the I Living Labs from 2 to 3 weeks for the students. Due to the fact that we combine 6 different institutions, we have to take into account that not all institutions have the same program/deadlines to subscribe for the specific semesters. The lesson here for **E<sup>3</sup>UDRES<sup>2</sup>** is that we need to shorten the ILL weeks and enlarge the time for registrations for the students.

### 1.3.3 For the stakeholders - challenge owners

Regarding to find the right the stakeholders - challenge owners we noticed an important improvement. The timing from connection with the regional stakeholder is related to the partaking during the I Living Labs. We organised I Living Labs where the EE's went looking for a challenge owner, but the best results can be found in the actual bonding between the EE and the regional stakeholder in the period preceding the I Living Labs. In creating and keeping a professional relationship throughout the entire academic year between the institute, EE's and the regional enterprises a collaboration on the long term can be developed. This bonding is important for the trust that is needed to co-create and co-develop ideas within the I Living Labs.

## 2. Description of round 4

### 2.1 Description of the Intensive ILL in Latvia

#### 2.2.1 Summary of the Intensive ILL in Latvia

Based on the outcomes of Latvian Pilot intensive ILL, the decision was made to organise a second intensive ILL in the spring semester, involving local (ViA) and international EE`s from E<sup>3</sup>UDRES<sup>2</sup> partner universities in Austria, Belgium, Hungary, Portugal, Romania, and increasing the number of international students in order to foster the international collaboration between the students.

The main concept of intensive ILL remained the same – two weeks, consisting of one on-line training week and one on-site week.

Unlike the previous intensive ILL, this time two parallel ILL streams were created. The largest group, consisting of 10 teams, worked on challenges proposed by a stakeholder. Whereas the second group, consisting of 4 teams, was created from the students of ViA study programme "Sustainable Building Construction" and the UPT study programme "Architecture". These 4 teams worked on one specific challenge, given by the New Building School Lab/ Sustainable Construction Hub

#### **Facts & Figures**

- 10 Teams + 1 Sustainable Wooden Building group, divided in 4 separate groups
- Dates for Spring semester: 20.03.2023 – 31.03.2023
- Main ViA target group: 2nd and 3rd year students
- For ViA students 1 Living Labs were embedded within the framework of 3 study courses ( Cinematic Voyage, Project management, Principles of Building Design)
- Participants: 82 students (52 local from ViA and 30 international students, representing UPT, UCLL, IPS, FHStP., MATE, Saxion) and 16 EE`s ( 7 from ViA + 9 from partner universities)
- 6 challenges for regular intensive ILL and 1 challenge for Sustainable Wooden Building group were divided per 14 teams (10 teams in

regular intensive ILL and 4 teams in Sustainable Wooden Building group)

- The I Living Lab`s were concluded with two ShowDowns – one for regular intensive ILL groups and the second for Sustainable Wooden Building groups.

The concept of planning and implementation process was kept from the previous (autumn) Latvian Pilot Intensive ILL.

Slight changes were made in Team selection process – one week before the start of ILL, students were asked to fill the Talento test with the aim to discover their unique talents in an accessible way and also to map out their growth potential. Based on the results of Talento test and on discovered talents, potentials and strengths, the teams have been created.

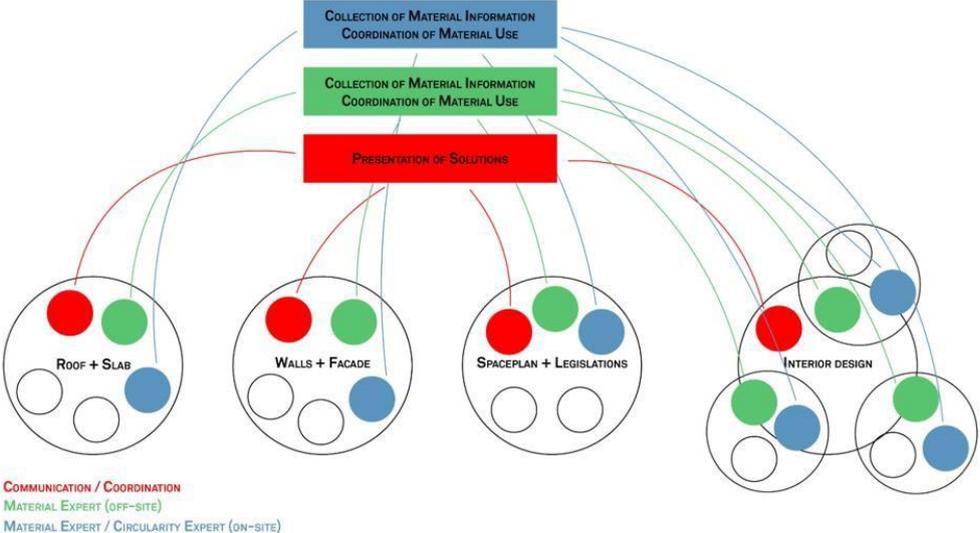
During the team creation process, attention was also paid to a balanced share of local and international students per team.

This approach resulted in well-structured teams, representing diverse talents, which also helped shape the overall team dynamic.

	Challenge
✈	Re-shape boring mystics: how might we communicate science to public to increase engagement and curiosity
✈	Expand a business idea of Sustainable or Circular city
✈	How might we improve physical activity level for people with disabilities using digitalisation or technologies
✈	How to use "in vogue" solutions to create a unique interpretation of a story
✈	How might we boost/improve learners' motivation in higher education
✈	How might we talk to a living book
✈	A circular transformation of decommissioned building into a timber construction hub for Valmiera region

A different approach was used to create the groups for Sustainable Wooden Building ILL. These students also were asked to fill the Talento test in order to get to know their talents, strengths, potential. However, the test results were not the basis for the group selection process. Groups were not divided

by wanted functions in the building or by equal tasks. This approach was used to ensure that the work of each group brings value to the further development of the sustainable construction hub. So the groups were divided by building parts that they need to address and solve. The overall function creation and arrangement was discussed together between all groups. In each group 3 of the members were given fixed roles. Those fixed roles were responsible for communication on the topics between all the groups.



### 2.2.2 New approach / changes since last round

During Spring intensive ILL a new approach was introduced parallel to classical intensive ILL. Two partner universities – UPT in Romania and ViA in Latvia, with common study field – Architecture and construction, integrated ILL concept in study course “Principles of Building Design”. The main focus during this ILL was placed on #circular #sustainability #renovation

14 ViA students from study program “ Construction of Sustainable Buildings” and 9 UPT students from Architectural studies, with support of a team of 6 mentors, consisting of 4 core mentors from ViA (2) and UPT (2) and 2 supporting mentors, worked seven full and intensive days on a challenge, given by New Building School Lab/ Sustainable Construction Hub.

Unlike intensive ILL, this ILL had specific tasks, related with a development of a new concept for an old building.

***Goal of the challenge:***

- Representative space for university, municipality or businesses of region to host events/lectures/exhibitions

Tools/ machines? Small workshop space for university (for producing and trying out mockups/prototypes) - open-up to outside for best space efficiency and possibility to work on larger objects

Guest flat (lecturer, researcher, guest), 3-5 people but not necessary like private flat

During online week input on theme was provided – Introduction of sustainability, Circular economy and construction, Net zero building and passive strategies, Life cycle assessment and life cycle cost, Circular waste flows during construction. Every stage had defined outcome and core tasks.

Whereas the main emphasis during on site week was on circular transformation of decommissioned building into a sustainable construction hub for Valmiera region. Every day had a specific stage outcome with core tasks.

<p><b>EUDRES ILL SS 2023 eudres.eu</b></p> <p>ON-SITE WEEK</p> <p>A circular transformation of decommissioned building into a sustainable construction hub for Valmiera region.</p> <p><b>Presentation of day's work: 21:00</b></p>	<p><b>1</b></p>  <p>Saturday 25.03.</p> <p><b>INTRODUCTION AND STRATEGIC DEFINITION</b></p>	<p><b>2</b></p>  <p>Sunday 26.03.</p> <p><b>PREPARATION AND ADAPTING THE BRIEF</b></p>
	<p><b>STAGE OUTCOME</b></p> <ul style="list-style-type: none"> <li>- schematic diagrams</li> <li>- keyword lists/word maps</li> </ul>	<ul style="list-style-type: none"> <li>- size of spaces and location of spaces defined</li> <li>- overall idea of the concept</li> <li>- ready BoM (<i>bill of materials</i>) of the existing building</li> <li>- solution/idea catalogue for each group how to improve/ensure functionality, circularity, sustainability and aesthetics</li> </ul>
<p><b>CORE TASKS</b></p>	<p>09:00-21:00 EET</p> <p><b>General info + teambuilding (1.5h)</b></p> <p><b>Site visit &amp; rough mapping of materials (2h)</b></p> <ul style="list-style-type: none"> <li>- get to know &amp; create material audit for selected building (Tērbatas iela 10A).</li> <li>- what is in the building, to what quality is it, can it be demounted, can it be reused or recycled, or is it waste? Paying close attention to attachments of materials</li> </ul> <p><b>Brainstorming all together (rest of day)</b></p> <ul style="list-style-type: none"> <li>- individual thinking</li> <li>- group brainstorm</li> <li>- conclusion</li> <li>- repeat</li> </ul>	<p>09:00-21:00 EET</p> <p><b>Groupwork</b></p> <ul style="list-style-type: none"> <li>- how does the location and size of spaces affect the group's topic</li> <li>- create digital BoM, this needs to be done in coordination between all groups. Map the data also based on reuse, recycling and dumping potential.</li> <li>- start inquiry into available reusable materials, also offcuts from companies in the Valmiera and even Vidzeme region. Map this data and share with rest of groups</li> </ul> <p><b>Discussion rounds with all together</b></p> <p><b>Task-group work</b></p> <ul style="list-style-type: none"> <li>- creating BoM</li> </ul>

### 2.2.3 Similarities & Differences in both Intense I Living Labs

Similarities	Differences
<ul style="list-style-type: none"> <li>• Implemented in existing study courses</li> <li>• Mixed student groups (local and international)</li> <li>• Online week, followed by the on-site week</li> <li>• Intensive ILL is about learning and acquiring the needed skillset and methodologies to work further on in various EUDRES projects, as well to use it for self development and in</li> </ul>	<ul style="list-style-type: none"> <li>• Higher proportion of international students</li> <li>• Talent test and Team building concept</li> <li>• Less students per team – maximum 6 students. Perfect team size: 5-6 members per team</li> <li>• More involvement of stakeholders – face to face meetings or visits to them</li> </ul>

professional work. We stuck to the previously defined concept that ILL is about acquiring new knowledge by doing (learning by doing) - although we tried to include a little element of entertainment in it, the main emphasis was on learning.

- EE`s act as mentors in team, encouraging students to think outside the box, face decisions and take responsibility of faced decisions, to negotiate, solve conflicts etc.
- 10 minutes for team presentation – 7 minutes for presentation, 3 minutes for QA session

- Two Showdown`s – one for classic intensive ILL and second for the Sustainable Wooden Building ILL
- Filled Hexagonal canvas template as a part of final presentation
- Free choice to choose the format for the final presentations. In this way, students' creativity was encouraged without limiting them to presentations in one specific format. Students could choose one of the following forms: video, reels, Instagram story, classic PowerPoint, storytelling, pitch
- No Jury in Showdown – this approach was chosen (as a lesson learned from autumn intensive ILL) in order not to stress the students. Our aim was that they acquire the skillset and are able to use it. Students were evaluated by their involvement in team work, their performance and activity during ILL.
- After Showdown 1:1 session with students in order to get the feedback about ILL

## 2.2.4 Students feedback

After Showdown an outboarding session was scheduled for all teams with their EE`s. During the session students were asked to fill the questionnaires about the ILL, had a 1:1 session with their EE`s and provided their feedback on the ILL by sharing their gains, struggles/challenges and hopes.

Answers to the question to describe in one word ILL:

Unbelievable, Challenging, Intense, Amazing, Teamwork, Rollercoaster, Positive, Interesting, Brainstorm, Comfort, Rainbow, Carousel, Fun

Students indicate that they were initially afraid to work in international teams both because of the language barrier and because it seemed that it would be difficult to find a common language. Thanks to ILL, they overcame their fears and became more open.

“It helped me to open up and create ideas and opportunities (this was mentioned several times); the group thinking; very interesting to discover cultural differences, get more open-minded; thanks to ILL I am not longer shy to speak English”

### Positive aspects of intensive ILL

- Group size and composition (diversity, talent based)
- Mentors approach and support (trust and support when needed, no exaggeration with extra activities)
- Flexible schedule (naturally adjusted lunch time etc.)
- Availability of resources (Multimedia Lab)
- Valuable experience in general
- Open atmosphere, trust

### Challenges

- Internal issues, group dynamics problems (no “decision maker” in the group, everyone was very active and had a lot of ideas)
- Internal communication in team
- Shortage of time, irrelevance to meaningful solution implementation

- Time pressure – only one week to come up with a concept and prototype
- Decision making frequency that prolonged way to start of prototype
- Too many of distraction actions (jokes etc.)
- Dissatisfaction with achieved (the individual and team’s level allowed to elaborate much more complicated solutions)
- Disappointment about the fact that not all team members liked someone’s idea

### Hopes

WE:	I:
<ul style="list-style-type: none"> <li>○ make new connections with people from other parts of the world, work on an interesting project and have overall an amazing experience;</li> <li>○ will share ideas &amp; we will get inspired;</li> <li>○ have fun doing something that is not an usual part of our work;</li> <li>○ could work as a team, regardless our background, nationality or personal beliefs</li> <li>○ will be able to create something great</li> <li>○ will have an inspiring experience</li> </ul>	<ul style="list-style-type: none"> <li>○ will be able to work with the group we have formed and together we will be able to do everything we have planned;</li> <li>○ will meet new people, gain experience that will be useful in the future and just have a good time:)</li> <li>○ can share and exchange cultural backgrounds and experiences</li> </ul>

### 2.2.5 EE’s feedback

During Creativity Gym session students pointed out, that the Future university is without grading. They will come to university for the skills, knowledges, but not for the grades.

One of the hardest task was to train the students for decision making . At the beginning they felt uncomfortable, because there were no instructions, but at the end of ILL admitted that this is the best way to grow

Thalento test and the specific approach in team selection, provided a safe and secured place for introvert students.

ILL is method how to teach and how to learn specific course Presence of stakeholder was the turning point – at this moment they understand that they are a team – gives the touch of reality

Presence of stakeholder was the turning point – at this moment students understand that they are a team – it gives them the touch of reality. Real-life challenges are best motivator to create something valuable.

The provided solution for the challenge “Re-shape boring mystics: how might we communicate science to the public to increase engagement and curiosity” was implemented by the stakeholder “Association of Latvian Young Scientists”

Internet, smart devices, social media.. The human kind is confronted with such a flow of information that it has not previously experienced. For-profit technology companies benefit from people spending more time with their services; thus, there is no guarantee that the information provided by the content creators to users will be qualitative or even true. Misinformation, purposefully wrong interpretation and representation of data, or even outright lies - all of which is created on a daily basis. At the same time, science is a complex subject, which cannot be summarised in a 30 second video, also including dancing or cats (preferably without "or"). How can such complex scientific information compete for attention? Should it even? If so, is it the responsibility of scientists themselves?



VIDZEME UNIVERSITY  
OF APPLIED SCIENCES



EUDRES<sup>2</sup>

Association of  
Latvian Young Scientists



Link to article: <https://lza.lv/latvijas-jauno-zinatnieku-apvieniba-sadarbiba-ar-vidzemes-augstskolu-rosina-jaunu-zinatnes-komunikacijas-risinajumu-meklesanu/>

## 2.2.6 Conclusion

ILL can be considered as a simulation game of the real working environment, which includes components that everyone has to face in the labour market - multicultural environment, time-pressure, adaptation to team members, the ability to listen and hear, the ability to compromise, the art of discussion and negotiation, creativity and problem solving, presentation and pitching. With this intensive ILL we train the professionals for the future who will be able to cooperate, take initiative, will be ready to find solutions to non-standard situations, and will also be able to see the many benefits of a multicultural team.

## 2.2 Description of the blended I Living Labs – UCLL

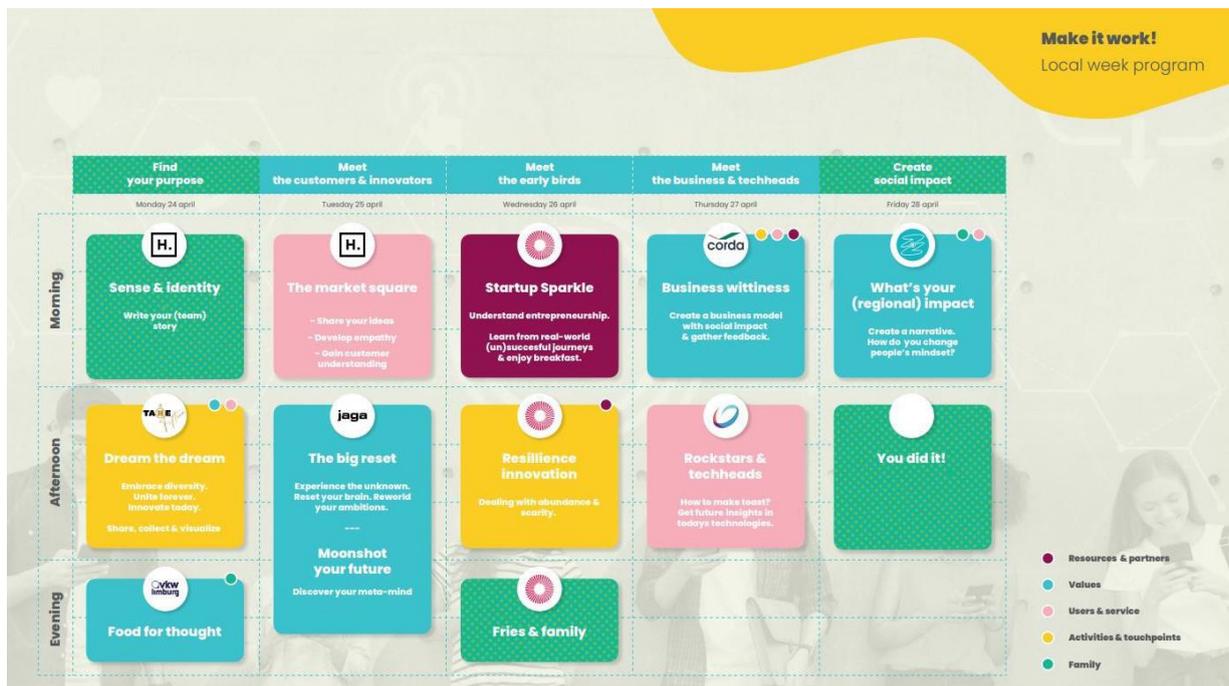
Regarding the blended I Living Labs we experienced in round 3 the difference in personal-physical contact during the learning process. The blended I Living Lab has the same process as the classic I Living Lab but with 1 local week integrated where the students meet each other face-to-face. The blended I Living Lab was so successful in the 3 round that we decided to keep this way of working and even take on an extra topic.

We had a choice in every topic, so the 3 topics are still the same: Circular Economy, Active aging and Wellbeing & Artificial Intelligence. The goal was to have 10 blended I Living Labs within the 3 topics.

The other change we made was the timing of the local week. Based on feedback we received from students we decided to move the local week more towards the middle of the I Living Lab process. The students explained that being able to connect during the local week, made their cooperation much easier. And if we did the local week somewhere in the middle, they could have benefited more from these new connections. Therefore we moved the local week to the middle and the round 4 students confirmed that this was a good decision.

Due to the fact that we did not have enough students that could travel to Belgium for the local week, we actually **had 7 blended I Living Labs held.**

The highlight of the blended I Living Labs is always the local week. The program of the local week can be found here:



### 2.3 Description of the local ILL in Hungary – MATE

2 Short blended ILLs (Food Quality in Digital Age) with physical mobility were organized in Budapest, Hungary from 07th to 10th June 2023 within the topic of Artificial Intelligence. The focus of the ILL training session was on food quality evaluation techniques. The challenges of the two teams were: Rapid Quality Evaluation of Chocolate and Fingerprinting to assess the quality of food.

An online onboarding session was held on 31st of May 2023 while physical presence was at the Hungarian University of Agriculture and Life Sciences (<https://bc.uni-mate.hu/>), Buda Campus. During the online session, students were introduced to the design thinking methodology and future skills. This was applied during the ILL. They also had the opportunity to get training in NIR (Near Infrared Spectroscopy) which was required for them to tackle their

challenges. 3 EE's (from MATE, STPUAS & UPT) and 11 students participated in the ILL.

Even though the time was short, participants also had the opportunity to visit local food processing companies (stakeholders), gain insights into the scientific highlights of MATE, and engage in team-building activities that would help foster collaboration and personal growth. These activities are designed to complement the ILL training session and provide participants with a well-rounded learning experience.

On the last day, a mini-showdown was held at the BioSys Food Engineering Conference 2023 (<http://biosysfoodeng.hu/>). All participants received a certificate of completion the course. ECTS credits will be offered to them depending on the sending institute's educational system.

### 2.3.1 Did you include experiences from the E<sup>3</sup>UDRES<sup>2</sup> ILL – why, what and when?

We have involved the basic principle: small, interactive, engaged teamwork on a special topic. We also strongly relied on the Design Thinking approach. Stakeholders were also in the roadmap; we have visited 3 stakeholders during the intensive ILLs. For us it was clear that the ILL education technology is a suitable and desired part in an innovative and future focused higher education. During E<sup>3</sup>UDRES<sup>2</sup> ILLs we learned the lesson of being a community and family, and we represented that atmosphere during our event.

### 2.3.2 What can be used in E<sup>3</sup>UDRES<sup>2</sup> 2.0?

The quality and output of our work cannot be measured immediately. Using ILLs is forming the mindset of both EE's and Learners. We are changing agents at our HEI. The message of local, short ILL at MATE is, that you can utilize new methods in international events, even if they are shorter than a classic ILL. Participants from many regions can learn the technology and use it at their home institution. We have experienced at MATE 'classic' ILLs that the majority of our Learners were visiting, international students. That provided a high level of diversity and also the spreading of that approach over a large number of countries. In E<sup>3</sup>UDRES<sup>2</sup> is 2.0 Learners of visiting / international students should be also welcome.

## 2.4 Meetings

### 2.4.1 Meeting minutes of the T-shaped Innovators – Holiday Makers

Date of meetings:

- 20 January 2023
- February 2023
- 17 February 2023
- March 2023
- 31 March 2023

Easter break

- 21 April 2023
- 12 May 2023
- 9 June 2023

All the meeting minutes and presentations used in the consultations can be found on Teams Sankt-Pölten.

## 2.4.2 Meetings minutes of the Educational Entrepreneurs

Date of meetings:

- 13 January 2023
- 27 January 2023
- 10 February 2023
- 24 February 2023
- 10 March 2023
- 24 March 2023

Easter break

- 21 April 2023
- 5 May 2023
- 16 June 2023

All the meeting minutes can be found on Teams Sankt-Pölten.

### 3. Grading & Assessment of the I Living Labs

To evaluate not only the students' performance but also the I Living Labs as a product, E<sup>3</sup>UDRES<sup>2</sup> employs multiple methods. This evaluation is most clearly split into grading and assessment. The former describes the evaluation that counts towards the ECTS grade a student receives after participating in an I Living Lab, and the latter describes not only the method of deciding that grade but also the evaluation of the process, product and impact of the I Living Lab. We will look at these forms of evaluation from three different perspectives: the present, the potential improvements, and the long-term goals for E<sup>3</sup>UDRES<sup>2</sup>.

#### 3.1 Grading & Assessing the Students' Performance (ECTS)

This part of the Grading and Assessment is student-centred. It focuses on how we evaluate their performance and how we come to their final ECTS grade.

##### 3.1.1 Present

At present, the student is graded on two main metrics: their participation and their progress in working on their Future Skills. Their participation is measured by their attendance and the Educational Entrepreneur's observations during the I Living Lab sessions. Their Future Skills progress is assessed based on a rubric that describes the students' Future Skills competence. This level of competence is evaluated by the Educational Entrepreneur based on a student's performance during the I Living Lab sessions and a self-reflective E-Portfolio that the students use to reflect on their Future Skills throughout the I Living Lab. Some, but not all, Educational Entrepreneurs include self- and peer-assessment for the students' final grade.

Based on the student's performance, they receive a letter grade between A and F. This grade gets translated into a corresponding grade that suits each partner university's grading format.

			Relying on support from others	Building independence	Taking responsibility	Driving transformation, innovation and growth
			With support from others, some autonomy and together with my peers	On my own and together with my peers, taking and sharing some responsibilities	Taking responsibility for making decisions and working with others, sometimes with some guidance.	Taking responsibility for contributing to complex developments in a specific field
			Discover and explore	Experiment and dare	Improve and reinforce	Expand and transform
Future skill	Hint	Descriptor	Level1	Level2	Level3	Level4
Design thinking	Use method of design thinking	I am able to apply design thinking methods in order to use concrete methods to carry-out creative development process.	I can describe the method and know the different spaces in design thinking.	I participate in design thinking process actively.	I can look critically on the process of design thinking within my group and can suggest improvement.	I take responsibility for the design thinking process. I am active and facilitate the process in the way that the group has an innovative perspective and is thinking out of the box.
Innovation	Develop creative and purposeful ideas	I can develop several ideas and opportunities to create value, including better solutions to existing and new challenges. I can explore and experiment with innovative approaches. I can combine knowledge and resources to achieve valuable effects.	I can show that I am curious about new things. I can explore new ways to make use of existing resources	I can experiment with my skills and competences in situations that are new to me. I can actively search for new solutions that meet my needs	I can actively search for and analyse new solutions that improve the value-creating process.	I can combine my understanding of different contexts to transfer knowledge, ideas and solutions across different areas
			Alone and as a part of a team, I can develop ideas that create value for others	I can experiment with different techniques to generate alternative solutions to problems, using available resources in an effective way	I can describe different techniques to test innovative ideas	I can tailor a variety of ways of involving stakeholders to suit the needs of my value-creating activity
Communication	Inspire, engage and get others on board	I am able to adapt the improve and adapt the discourse, dialog and strategic communication aspects. I can inspire, persuade and communicate effectively. I can use media effectively	I can communicate my own and my team's ideas to others persuasively by using different methods (for example posters, videos,role-play, ...)	I can communicate imaginative design solutions to stakeholders from different backgrounds effectively	I can communicate the vision for my (or my team's) venture in a way that inspires and persuades external groups, such as partner organisations, volunteers, new member and affiliate supporters.	I can take part in constructive discussions with the community that my idea is targeted at.
			I can develop their ability and disposition to cooperate	I am open to working alone as well as	I can work with a range of individuals	I can build a team based on the

Figure 1: Screenshot of the Design Thinking evaluation rubric

ECTS Grade	%	Definition of the grading
(A) Excellent	90-100%	Outstanding performance with only minor errors
(B) Very good	80-89,9%	Above the average standard with some errors
(C) Good	70-79,9%	Generally sound work with several notable errors
(D) Satisfactory	60-69,9%	Fair but with significant shortcomings
(E) Sufficient	50-59,9%	Performance meets minimum criteria
(F) Fail	under 49,9%	Considerable further work is required before credits can be awarded

Table 1: ECTS Letter grades

### 3.1.2 Reflection

The current Evaluation system works but is not always clearly communicated to both the Educational Entrepreneurs and the students. The clear communication of the evaluation rubric could be beneficial for the students' ease of mind. We currently get a lot of questions from both parties about the exact goals of an I Living Lab.

On the other hand, we don't want students to focus on these grading criteria, as this might distract them from the ultimate goal of the I Living Lab: to create

an impact on the region by providing solutions to (local) challenges. Participation in an I Living Lab begets the use (and development) of Future skills, so it should be abundantly clear that the focus lies on the process of developing a solution to the challenge.

### 3.1.3 Improvements

- Clearer goals as part of the process  
One way to improve the students' grading would be to make the goals as clear as possible at the beginning of the I Living Lab for both the Educational Entrepreneur and the student. This could be done by giving the students the evaluation rubric beforehand and incorporating self- and teacher evaluation in set moments during the programme. This would promote a bigger sense of ownership of learning for the students and would bring a bigger focus on the progress to the development of future skills.
- Incorporate peer- and self-assessment into the I Living Labs as an obligatory evaluation  
Currently, it is up to the Educational Entrepreneur whether they incorporate peer- and self-assessment into the I Living Lab process. Making this a standard form of evaluation for all I Living Labs would be an easy improvement for a more sustainable and substantiated grading.
- Evaluation of the end result by the challenge owner  
The Challenge Owner is the person best suited to evaluate whether a group of students delivered a good solution to the challenge. From an educational perspective, however, the learning goals lie more in the process than the challenge. Therefore, while this evaluation should play a central role in the process, it should not influence the students' grades too much. I would propose a weight of 5% - 10% of the total grade.

- Evaluation of the local impact of the I Living Lab solution  
Local impact is one of the main aims of the E<sup>3</sup>UDRES<sup>2</sup> program. Therefore, it would be logical to incorporate this into the students' final grade as well. However, this is no clear metric. So maybe this could be part of the Challenge Owner's evaluation.

## 3.2 Assessment of the I Living Lab process

This part of the assessment serves to better the way E<sup>3</sup>UDRES<sup>2</sup> organises the I Living Labs. There are three main actors to keep in mind when discussing the assessment of the I Living Lab process: the Educational Entrepreneurs, the students, and the Challenge Owner.

### 3.2.1 Present

Currently, we collect data on the I Living Lab process in three main ways: surveys, focus groups (see further in the document for results) and by monitoring the I Living Lab progress manually through bi-weekly meetings with Educational Entrepreneurs (already mentioned before) and by keeping an eye on their progress during the I Living Lab.

To take into account the students' experience of the process, we use a check-in survey, a check-out survey, and we organise focus groups. The check-in survey serves to collect data on students' expectations, on how they found the I Living Labs, and to gauge their motivation and level of skill. The check-out survey gives us an insight into how the students experienced the program (me), and how they feel about the format and repeats some of the questions of the check-in survey to enable us to measure growth and/or mindset changes. The focus of the focus groups is the same, but the format allows for a more in-depth review of the process.

The Educational Entrepreneurs' experiences are also measured through surveys and focus groups. However, as Educational Entrepreneurs usually go on to lead more I Living Labs, these conversations also serve as an opportunity to brainstorm about the future I Living Lab process.

As of now, the Challenge Owners' assessment of the I Living Lab process is fairly limited as it mainly consists of informal talks with the Challenge Owners throughout and after the I Living Lab.

### 3.2.2 Reflection

Due to several factors, such as the limited time Educational Entrepreneurs can spend on E<sup>3</sup>UDRES<sup>2</sup> activities, the I Living Labs themselves take priority and the time for process evaluation between I Living Labs is extremely limited. Due to the Educational Entrepreneurs' limited availability between I Living Labs, the T-shaped innovators are the ones to concoct iterations to the I Living Lab process, where the involvement of an Educational Entrepreneur would make the iterative process easier as they could draw from first-hand experience where others cannot.

All this forces us to often simply repeat the process of previous I Living Labs for the most part, and to keep falling prey to the same pitfalls. The improvements we do get to make, usually have a great impact. Take the Inclusion of the grading rubric or the automation of registrations, for example.

The same difficulties hampered the development of a structural assessment method where Challenge owners are concerned. An extra factor with working with entrepreneurs as Challenge Owners is that these relationships are quite fresh and we have to be careful to not overload them with E<sup>3</sup>UDRES<sup>2</sup>-related tasks lest they decide that E<sup>3</sup>UDRES<sup>2</sup> asks too much of them.

While well thought-out and put together, the results of these evaluation moments are often not used to their full potential due to a lack of dissemination.

### 3.2.3 Improvements

- More time for Educational Entrepreneurs to spend on an iterative process. Wishful thinking, perhaps, but more working time for Educational Entrepreneurs to spend on process development in between I Living Labs would enable a higher level of improvement.

- A higher inclusion of the students in the development of the I Living Lab process. By involving the students more in process-development stages. We could make more student-focused improvements.
- A structural solution – a framework with a set timing – for improved Challenge owner assessment

### 3.3 Assessment of the I Living Lab Impact (on E<sup>3</sup>UDRES<sup>2</sup> regions)

This part of the assessment explores the impact of the I Living Labs on the region.

#### 3.3.1 Present

'Regional impact' being a vague metric, this is the most challenging. During the first phase of E<sup>3</sup>UDRES<sup>2</sup>, the main philosophy surrounding the regional impact of the I Living Labs was that the challenges should be current, relevant, have a clear societal value and fall within one of the three main I Living Lab themes: Circular Economy; Human Contribution to Artificial Intelligence; and Wellbeing and Active Ageing.

Ideally, these Challenges would come to E<sup>3</sup>UDRES<sup>2</sup> from actors from the regions: entrepreneurs, governments, employers,... These people or organisations are our Challenge Owners. These Challenge owners are one of the ways E<sup>3</sup>UDRES<sup>2</sup> – connects and influences the region.

Currently, however, a big chunk of the I Living Labs that have been run so far had no E<sup>3</sup>UDRES<sup>2</sup> – external Challenge Owner. The Educational Entrepreneurs took the role of Challenge Owner and concocted a challenge to allow the I Living Lab to continue.

#### 3.3.2 Reflection

Without the involvement of a challenge owner, the I Living Lab mainly serves as a thought exercise that has no obvious link to the region. One could argue that students who experienced an I Living Lab are the regional impact by becoming drivers of smart sustainability within their region.

We also saw that I Living Labs with actively involved Challenge Owners not only have a greater potential impact but also have more engaged students.

### 3.3.3 Improvements

- Making a challenge owner a prerequisite for organising an I Living Lab  
This is the best way to drive change in a region, as a challenge owner may take I Living Lab solutions back into the region. These can then in turn be polled for their points of view concerning change being driven.
- A strong connection with governing bodies of the region  
A strong working relationship with governing bodies in the region could help map the long-term change E<sup>3</sup>UDRES<sup>2</sup> is driving. These bodies can also play a role in supplying Challenge Owners. They have a good grip on the challenges of the region and could enhance E<sup>3</sup>UDRES<sup>2</sup> 's ability to drive change by focusing part of I Living Lab efforts.
- Following up on students after they graduate  
Following up on students after they graduate, would allow us to collect more data on whether they use skills they learned in a E<sup>3</sup>UDRES<sup>2</sup> program, whether they are inspiring change in the region and whether they stay in the region after graduation. This in turn helps us assess the challenges and their impact on the regions.

## 3.4 Assessment of the I Living Lab Product

This fragment of the assessment concerns the outcome of an I Living Lab; the 'product' of I Living Labs. Specifically the regional impact of the product, the (e)valuation of the quality of the product

### 3.4.1 Present

At present, the I Living Lab results are recorded in the form of the students' I Living Lab presentations and posters that describe the students' solutions. Students get feedback on their outcomes from the Educational Entrepreneur and their Challenge Owner during the I Living Lab, and from a panel of experts during the Showdown event at the end of each round of I Living Labs.

This assessment mainly focuses on the quality of the work students submitted and the value to the Challenge Owner.

### 3.4.2 Reflection

The assessment of the product or outcome of the I Living Lab raises some challenges: 'What are the criteria for a 'good' product?', 'who decides whether or not the product is "good"?', 'Is the value for the Challenge Owner, the university or the region most important?', 'how do you measure "regional impact"?'.

At the moment, the metrics we use to frame the regional impact are these:

- The number of students who complete an I Living Lab. These students were influenced by the E<sup>3</sup>UDRES<sup>2</sup> methodologies and might take that with them in their professional careers.
- The Challenge Owner's assessment of the solution delivered by the student. This assessment consists of both a formal evaluation that contributes to the student's grades and informal feedback to the E<sup>3</sup>UDRES<sup>2</sup> team about the usefulness of the solution.
- The Educational Entrepreneur's assessment of the solution. This assessment is a formal assessment that also contributes to the student's grades, and is at this point in time the only formal assessment E<sup>3</sup>UDRES<sup>2</sup> makes of the solutions.

### 3.4.3 Improvements

- Following up on students after they graduate (see Assessment of the I Living Lab Impact, subtitle improvements). Following up on students after they graduate, would allow us to collect more data on whether they use skills they learned in a E<sup>3</sup>UDRES<sup>2</sup> program, whether they are inspiring change in the region and whether they stay in the region after graduation. This in turn helps us assess the solutions and their impact on the regions.

- Adding a formal (internal) E<sup>3</sup>UDRES<sup>2</sup> assessment of the solution. This would provide E<sup>3</sup>UDRES<sup>2</sup> with more data on the products, but would also be a shortcut in the process of organizing a E<sup>3</sup>UDRES<sup>2</sup> Bootcamp as this assessment gives insight into the solutions and their viability.

### 3.5 Focus groups

One of the main improvements that we made is to contact the key persons from the I Living Labs and asked their opinion on the I Living Labs. We organized focus groups for the EE's and of course also for the students.

#### 3.5.1 Focus groups EE's

UCLL and STPUAS organised 4 focus groups with EE's

- 30 March – 3 participants
- 6 April (cancelled)
- 27/3
- 29/3

The perspective of education entrepreneurs in the I Living Labs program provided valuable insights into their experiences, helpful aspects, and areas that could be improved. The following points summarize their feedback and perspectives:

#### **Helpful Aspects:**

- **Insight into Teaching Methods:** The program offered valuable insights into innovative teaching methods, allowing entrepreneurs to explore and incorporate creative approaches to engage and educate students.
- **Transformation of Teaching:** Education entrepreneurs expressed their intention to transform their experience from the Living Lab teaching into regular teaching by promoting student independence,

establishing feedback loops, and making the learning process more enjoyable and interesting.

- **Project-Based Teaching:** Entrepreneurs recognized the significance of project-based teaching and learning, as it helped students gain practical knowledge and apply the concepts they learned during the program.

#### **Connection with Stakeholders:**

- **Food Waste and Software:** Education entrepreneurs appreciated the opportunity to connect with stakeholders, such as Menza, to learn about internal food waste management systems and the software being used. These connections facilitated a deeper understanding and learning experience.
- **Future Collaboration Opportunities:** The program provided a platform for potential future collaborations with external stakeholders, creating links with the outside world and fostering ongoing partnerships.

#### **Impact and purpose of Eudres:**

- **Taking it to the Next Level:** Entrepreneurs expressed the desire to build upon the opportunities presented by the program, taking the projects and solutions developed during the Living Labs to the next level. They also mentioned some projects should be implemented in real time.
- **Business and Social Impact Balance:** While the program had a business-oriented focus, entrepreneurs highlighted the importance of giving back to society and aiming for social impact in addition to the entrepreneurial aspect.

#### **Improvement and evolution of I Living Labs:**

- **Practical Application:** Education entrepreneurs emphasized the need to incorporate more practical elements into the program to ensure

that the work is not solely theoretical. They suggested creating opportunities for students to solve complex problems while also making a social impact.

- Continuity and Process Pace: Entrepreneurs suggested allowing for more continuity in the program and slowing down the process to ensure a deeper understanding and implementation of concepts.
- Group Creation: The structured approach to group creation was seen as an area for improvement. Entrepreneurs proposed a more random creation of groups to allow students to develop and improve their strengths in a different way.

In conclusion, the education entrepreneurs highlighted the value of experienced faculty guidance, insights into teaching methods, and the transformation of their teaching practices based on the I Living Labs program. They recognized the importance of social impact, continuity, and practical application. The feedback provided will contribute to the evolution and improvement of the program, focusing on creating a balance between business orientation and societal contributions, as well as refining the group creation process.

### 3.5.2 Focus groups students

We organised a Focus group of students after round 3.

- 9 students from different institutions participated
- From the classic and blended living labs
- Main conclusions: teamwork is important for students, design thinking process is challenging but valuable for future development, involvement of stakeholders is important reason for students to join but their engagement is sometimes lacking

## Summary Report: I Living Labs Focus Group Meeting (Students)

The focus group meeting of the I Living Labs program was held to discuss the goals, process, and expectations of the participants. The students shared their experiences and highlighted their expectations, impact, and challenges faced during the program. The following points summarize the key discussions and insights from the meeting:



Summary Focus  
Group i Living Labs st

In conclusion, the focus group meeting highlighted the participants' expectations, experiences, and challenges in the I Living Labs program. The program provided a platform for learning, idea exchange, and meeting experts, along with international exposure and academic benefits. While some challenges were identified, the overall impact and expectations were positive, and participants expressed their intent to apply the gained experience in their future endeavours. The feedback received will help the program organizers enhance facilitation, team formation, and practical engagement for future iterations of the program.

## 4 IT infrastructure for I Living Labs

The I Living Labs are not only organized simultaneously by all E<sup>3</sup>UDRES<sup>2</sup> partners, but their participating students also span multiple organizations and therefore locations. In the last round of I Living Labs, There were about 300 students participating in I Living Labs. To be able to organize this, E<sup>3</sup>UDRES<sup>2</sup> uses digital tools for internal organisation between partners as well as tools for the practical organisation of the I Living Labs. The two most important ones are the E<sup>3</sup>UDRES<sup>2</sup> registration system co-developed by colleagues of the Romanian partner IPS and the Belgian partner UCLL. For Learner-Educator interaction, E<sup>3</sup>UDRES<sup>2</sup> uses the uniCampus, a Moodle-based platform that was developed by IPS.

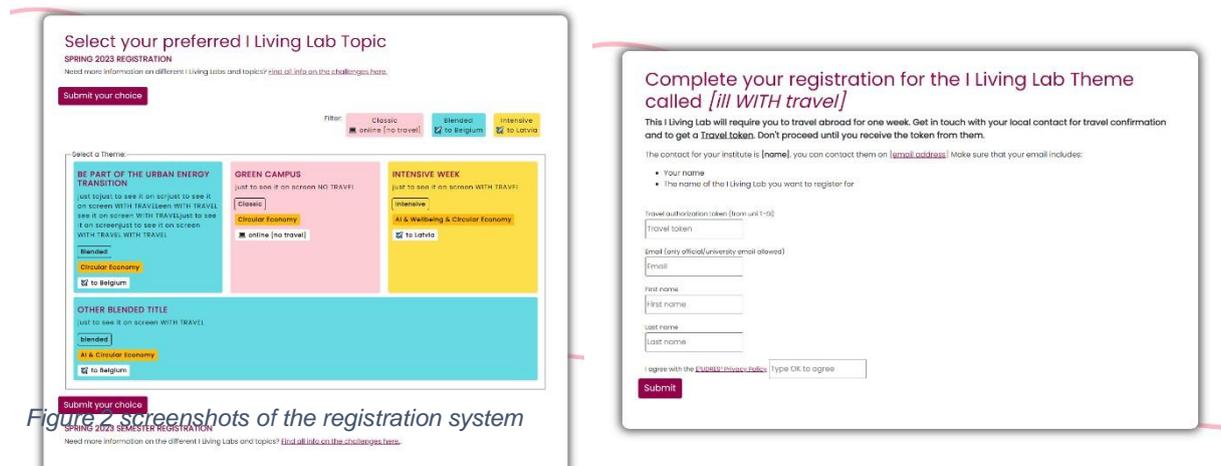
### 4.1 Registration IT system

#### 4.1.1 Present

For the first two rounds of I Living Labs, E<sup>3</sup>UDRES<sup>2</sup> used simple online forms to organise the I Living Lab registrations. This meant that dividing students into I Living Lab Teams was all manual labour. Since the third round of E<sup>3</sup>UDRES<sup>2</sup> I Living Labs, we utilized a more complex registration system that pre-divided students into teams based on their choices and a set of rules. These took into account metrics such as the minimum and maximum amount of students per partner in an I Living Lab to pre-sort students into teams for the I Living Labs.

For the second round of I Living Labs, we updated the registration system using the learnings of the first version. Changes include the addition of a check for all I Living Lab registrations that include international travel and the shift from registering for a challenge to registering for a challenge theme.

The team division and challenge selection were moved to the Talent tool and Learner-Educator interactions.



The registration website needed to be accessed through the E<sup>3</sup>UDRES<sup>2</sup> website, and while it is not the prettiest, it is functional. The back-end, however requires more work. It is relatively bare-bones and has little to no options for non-admin users to do much more than see the registration data.

#### 4.1.2 Reflection

While there is still a lot of work to be done and improvements to be made, the registration system made lighter work of student registration. The biggest factors that cause issues and increase workloads are the differences in the partners' modus operandi for internal course registration. The dissonance between E<sup>3</sup>UDRES<sup>2</sup> timing and its partners' timing concerning for example course registration causes difficulties, alongside a difference between partners in terms of prerequisites for registration.

At UCLL, for example, any registered student from any programme can join any I Living Lab, regardless of their experience or grades. While at MATE, a student from a certain programme needs to be enrolled in an I Living Lab with a matching topic.

Then there also is the difference in availability and use of funding: some I Living Labs require students to travel abroad. Ideally, only students who are allowed to travel can enrol for I Living Lab which includes obligatory travel. One of the checks in version 2 of the registration system required students to input a **E<sup>3</sup>UDRES<sup>2</sup>** employee. This employee would only give the token if the student was allowed to travel. However, this check came too early for some partners so this check was not entirely accurate.

From a usability point of view, the registration system would ideally be a lot shorter, easier to access, and more visually attractive.

### 4.1.3 Improvements

- An interconnected **E<sup>3</sup>UDRES<sup>2</sup>**-partner registration system. Ideally, a student would be registered for an I Living Lab once they are enrolled in the I Living Lab course in their home university. This would avoid a lot of extra work and checks for all partners.
- A closer integration with the Talent Tool. Now, the Talent Tool is used separately from the registration system, while it collects a lot of similar data.

## 4.2 Learning Platform: UniCampus

### 4.2.1 Present

After using Basecamp for the first two rounds of I Living Labs, we moved to uniCampus due to data privacy concerns, and the aim to integrate grading and assessment more into the I Living Lab digital platform. This Moodle-based platform would also facilitate pre-learning and all Learner-Educator communication. Each I Living Lab was given an own course on uniCampus with a content template that could be used by Educational Entrepreneurs to organize their I Living Labs. This included a session schedule with attendance tracking and the possibility to link online meetings, information modules, tasks with tracking and online grading etc.



Figure 3 The Educational Entrepreneur Team on Basecap

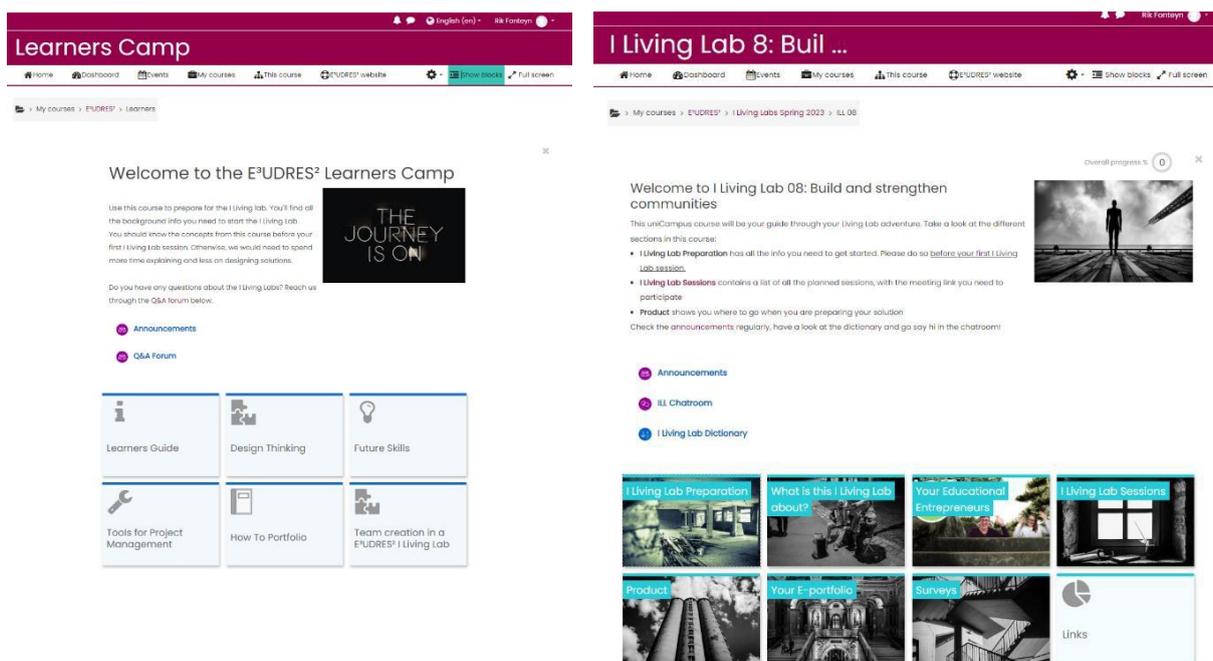


Figure 4 The Learners camp (pre-learning) and an I Living Lab home page

## 4.2.2 Reflection

Both platforms have their own strengths and weaknesses. Where Basecamp is very good for file sharing and communication, a Moodle-based system offers a bigger focus on educational requirements such as autonomous learning, grading and attendance. This is both uniCampus' strength and weakness. The platform is so focused on the educational side that it offers very little in terms of interpersonal features such as chat and file collaboration.

Another difference between the two is the workload for Educational Entrepreneurs. In Basecamp, communication and organization were one and the same thing. Since there were not a lot of different formats to work with, the I Living Lab was boiled down to its essence. In uniCampus, courses can be a lot more structured, but that structure and content take additional time to construct.

In terms of aesthetics, neither is exceptionally great, but where Basecamp has a modern look and feel, uniCampus feels more like an older platform.

The complexity of the learning platform makes the interaction less spontaneous and lacks a few essential features such as file hosting of reasonable data storage limits.

### 4.2.3 Improvements

- I Living Lab pre-learning as a free access MOOC  
Since the content of the pre-learning for an I Living Lab is all non-E<sup>3</sup>UDRES<sup>2</sup>- specific content, it could be opened up to the world as an open-access learning experience. This would make it easy to separate the pre-learning from the I Living Lab experience so that the platform used for interaction can be more focused on interpersonal interaction.
- Separate the pre-learning experience from the I Living Lab Team Platform. By using separate platforms, the Educators would get more freedom in the organization of their I Living Lab. This would improve the workload for both students and Educators.

## 5. Conclusion about round 4 ILL – Relation to E<sup>3</sup>UDRES<sup>2</sup> 2.0

Regarding to all improvements that are mentioned in this document we will combine them with the outcome of the Family Days that we have held in May 2023 @ UCLL.



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We are delighted to invite you to the E<sup>3</sup>UDRES Family Days, a transformative European workshop focusing on purpose-driven innovation. Our alliance of nine European universities aims to create smart, multidisciplinary collaborations, transcending national borders to maximize our collective potential.

During the Family Days, parallel workshops will be organized for two distinct target groups. The first group, composed of Wp leads and potential co-workers from **WP 2-3**, will engage in discussions and reflection on the first phase of the E<sup>3</sup>UDRES project. These workshops will cover lessons learned, challenges, opportunities, next steps for sustainability, and strategies for sharing

**Results:**

The target audience includes Wp leads 2-3, support Wp leads 1, and potential collaborators for the E<sup>3</sup>UDRES 2.0 project.

Simultaneously, a non-academic workshop will be held for non-academic support staff to gather their insights on the future European University. This workshop will address topics such as quality assurance, education, and educational organization. The target audience for this workshop consists of non-academic staff in the mentioned areas and Wp2 management.

By combining these two groups during the Family Days event, we aim to foster a collaborative and inclusive environment that encourages innovative thinking and synergistic interactions.

Separate breakout sessions will provide opportunities for each group to focus on their specific interests and challenges. By blending these diverse perspectives, we can better drive purpose-driven innovation and strengthen our alliance for the E<sup>3</sup>UDRES initiative's next phase.

During the Family Days parallel workshops, we will delve with the Wp leads of 2-3 into:

- the themes of reflection, lessons learned
- discuss the challenges and opportunities ahead
- identify the next steps to ensure the sustainability of our alliance
- devise strategies for securing and sharing our results.

**Target group:**

- Wp leads 2-3
- Support Wp lead 1
- Potential co-workers in Wp 2-3 for E<sup>3</sup>UDRES 2.0 project

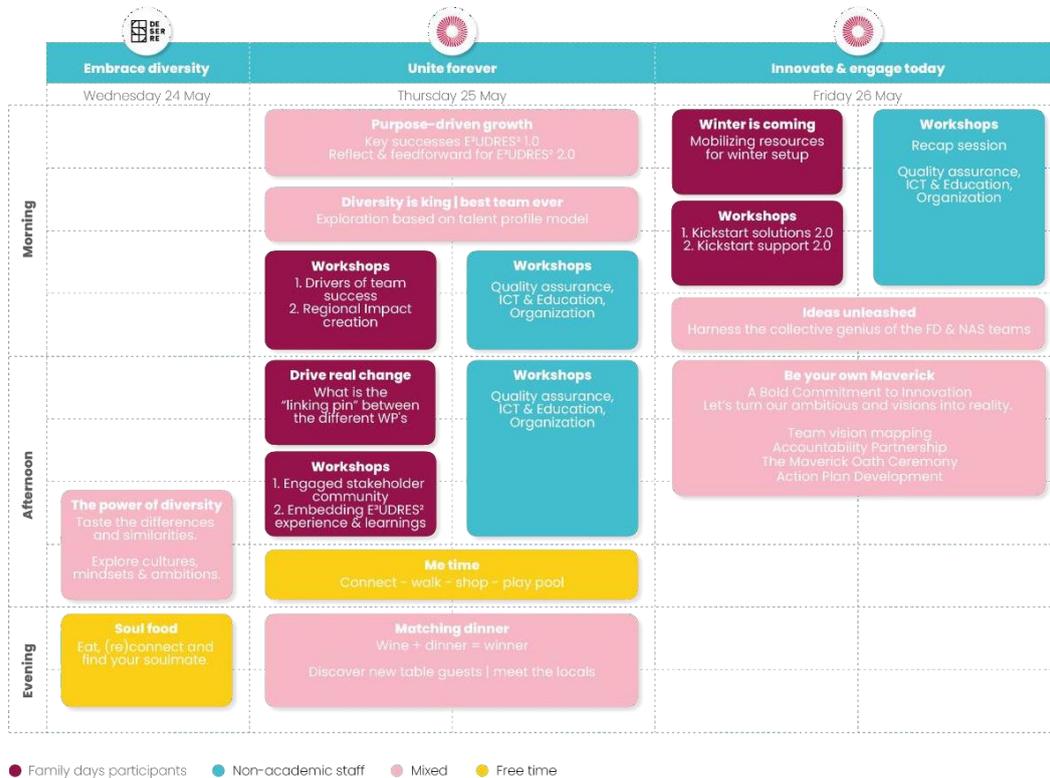
During the non-academic parallel workshops bring together non-academic staff in Belgium to collect their views on the future European University on the following topics:

- quality assurance
- ICT & Education
- Educational organization

**Target group:**

- non-academic staff in above topics
- Wp2 management

During the Family Days we had a very specific program to prepare for Winter 2023.



As already mentioned the results of the Family days will be integrated in to a summary that we will broaden in the final WP3 D3.6 D33 deliverable.