

**Project S3UNICA “Smart Specialisation in UNiversity Campus”**

**5<sup>th</sup> S3UNICA Newsletter – January 2022**

The Covid-19 emergency and S3UNICA

This issue of the S3UNICA newsletter comes out at another critical moment (4<sup>th</sup> wave) of the pandemic crisis that is affecting the world and the EU, including the S3UNICA Partner Countries. This implies that the various questions posed in the previous issues of the newsletter, unfortunately, have not yet been answered. Indeed, further questions must be asked: how will the vaccination campaign proceed? What will be the consequences of the discovery of new variants of the virus on the educational activity and social life of the academic world? The COVID-19 has impacted the world since December 2019 and has had a profound influence on many sectors (from manufacturing to education, healthcare, tourism, etc.). Among these, higher education is one of the most impacted sectors, as nationwide closures involved over 91% of the global student population. During the

**Covid-19 vaccination campaign in S3UNICA PPs (data in %)**  
(as of 15/01/ 2022)

	2 doses of vaccine	Additional dose	18-24 age group (additional dose)
<b>Population 18+</b>			
Italy	74.3	32.2	13.9
Spain	75.5	45.3	0,4
Finland	75,4	30.7	5.6
Romania	40.8	6.5	4.1
Poland	56.5	22.1	7.2
<b>TOTAL EU</b>	<b>73.3</b>	<b>69.1</b>	<b>12.0</b>

Source: European Centre for Disease Prevention and Control (COVID-19 Vaccine Tracker)

the pandemic, the online courses, adopted by the majority of universities, inevitably led to changes in occupancy rates as well as variations of energy use on campuses. On these aspects, between September and December 2021 the European University Association – EUA (a non-profits organisation, with more than 800 members) published some studies/surveys aimed at understanding the impact of the virus on the academic life, the policies to ensure a sustainable campus and the obstacles for their realization.

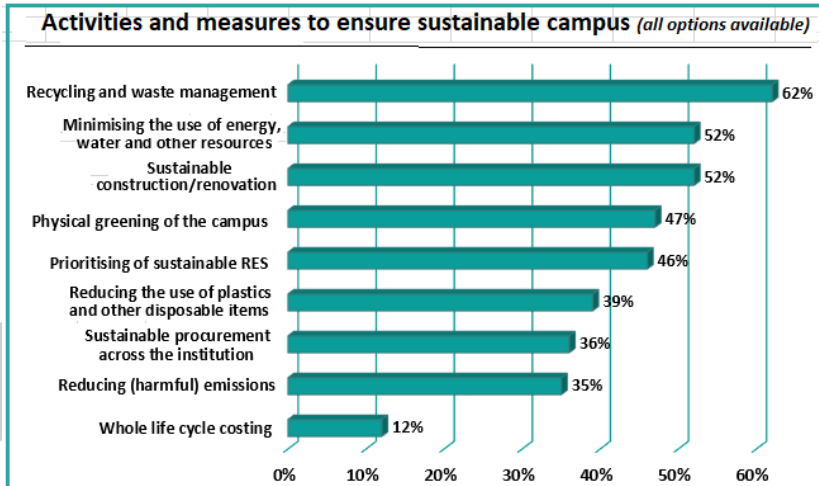
Briefly, the survey “The impact of Covid-19 on European higher education” focused on education provision and practices regarding vaccination and testing. In the autumn of 2021, institutions in most systems (73%) still faced at least partial restrictions (mainly, mask wearing, social distancing and restricting room capacities) to face-to-face teaching due to public rules (national and/or regional) and to their own/internal rules and regulations. Within a country, the situation often differs across institutions: for example, in Romania some continue to work entirely online, others in a hybrid mode. Most systems (77%) are able to offer social activities for students, however, with at least partial restrictions (65%). Italian and Romanian systems report that many or most of the institutions’ social activities are still on hold. In 42% of the interviewees, there is no requirement for staff and students to get vaccinated or tested. Only 23% report this as a condition due to public rules (e.g. Italy) and 15% as an issue for the universities to decide (e.g. Romania). In the 65% of the national systems, some or all of the

universities continue to offer COVID19 testing to students and staff. Beyond testing, universities may also encourage vaccination take up and offer vaccinations on campus (e.g. Finland). With the survey “Greening in European higher education institutions” (“greening” is defined as increasing awareness and taking concrete action towards a green, environmentally-friendly and resource-efficient university), the EUA collected evidence of the institutions’ diverse activities and approaches to greening. This survey gathered 390 responses from 56 higher education systems; 305 of which had greening measures and initiatives in place and

Low-carbon economy

**The Partnership of S3UNICA**

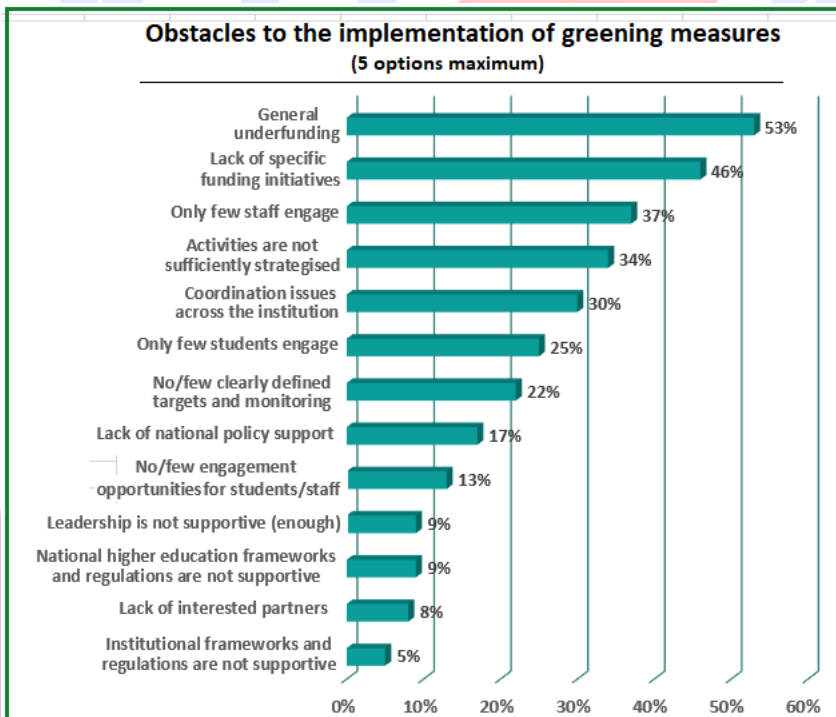
- PP1 (LP) – Friuli Venezia Giulia Autonomous Region (ITALY)
- PP2 – University of Udine (ITALY)
- PP3 - University of Trieste (ITALY)
- PP4 – Alba Local Energy Agency – ALEA (ROMANIA)
- PP5 – Andalusian Energy Agency – AEA (SPAIN)
- PP6 – Institute of Domestic and Energy Efficiency IDEE – University of Malaga (SPAIN)
- PP7 - Regional Council of South Karelia (FINLAND)
- PP8 - LUT University (FINLAND)
- PP9 – Association of Municipalities Polish Network “Energies Cités” – (POLAND)



were hence considered for the evaluation<sup>1</sup>. In short, considering the activities and measures to ensure a sustainable campus, the most widespread comprehensive policy was recycling/waste management (62%), followed by sustainable construction/renovation (52%) and minimising the use of energy, water, or other resources (52%). The survey results also point to areas where greening activities exist, but comprehensive policies are less frequent, namely when it comes to whole life cycle costing, reducing the use of single-use plastics and other disposable

items, adopting sustainable procurement across the institution and reducing harmful emissions. Greening represents a financial challenge for many universities and cost remains the most significant factor in implementing greening measures, as confirmed by the majority of higher education institutions surveyed by EUA. General underfunding and the lack of specific funding incentives were identified as the two main obstacles in addressing environmental sustainability.

Investing in meaningful greening initiatives becomes particularly difficult, especially as they require upfront investment, for instance via major changes to infrastructure. Moreover, the Covid-19 crisis is also expected to have a long-term negative impact on university funding in the coming years. A total of 20% of the respondents to the EUA survey on greening said that due to COVID-19 funds are reduced, limiting their ability to set up greening measures. 64% of institutions have greening activities in place across the institution, whereas at 18% measures are driven by individual departments or faculties. A further 14% are considering the establishment of such measures in the future.



<sup>1</sup> The geographical spread doesn't correspond to the size of the higher education sector in individual countries. However, among the major responding countries they are 3 S3UNICA Partners (in order: Spain, Romania and Italy). The majority of feedback was gathered from respondents at comprehensive, multidisciplinary universities (57%), followed by universities of applied sciences and university colleges (16%), and technical universities (13%).

For a complete consultation of the EUA surveys presented above, see the following links:

<p><b>eua</b> EUROPEAN UNIVERSITY ASSOCIATION</p> <p>Email: <a href="mailto:info@eua.eu">info@eua.eu</a> Web site: <a href="https://eua.eu">https://eua.eu</a></p> <p><b>Geneva office</b> 114, Rue du Rhône 1211 Geneva 3 – Switzerland Tel: +41 (0) 22 552 02 94</p> <p><b>Brussels office</b> Avenue de l'Yser, 24 1040 Brussels - Belgium Tel: +32 (0) 2 230 55 44</p>	<ul style="list-style-type: none"> <li>• Survey of National Rectors' Conferences – Autumn/Winter Semester 2012/2022: “<b>The impact of Covid-19 on European higher education</b>” – November 2021 <a href="https://eua.eu/downloads/publications/the%20impact%20of%20covid-19%20on%20european%20higher%20education.pdf">https://eua.eu/downloads/publications/the%20impact%20of%20covid-19%20on%20european%20higher%20education.pdf</a></li> <li>• Greening in European higher education institutions: “<b>A governance, funding and efficiency perspective</b>” – December 2021 <a href="https://eua.eu/downloads/publications/gaf%20greening_final.pdf">https://eua.eu/downloads/publications/gaf%20greening_final.pdf</a></li> <li>• Greening in European higher education institutions: “<b>EUA survey data</b>” – September 2021 <a href="https://eua.eu/downloads/publications/greening%20in%20european%20higher%20education%20institutions.pdf">https://eua.eu/downloads/publications/greening%20in%20european%20higher%20education%20institutions.pdf</a></li> </ul>
--	--

## The main events of S3UNICA



On 27<sup>th</sup> October 2021 **Alba Local Energy Agency - ALEA** organised and coordinated the Exchange of Experience event in on-line mode. After a presentation of the S3UNICA Project from the Friuli Venezia Giulia Region (PP1 – LP), ALEA presented the Project activities in Romania, the results of stakeholder involvement and the development of Action Plans. From the presentation it appeared that in Romania the energy efficiency levels are low in university campus buildings (a situation that is common for the majority of public buildings in the Country), mainly due to budgetary restraints. In particular, even

if Action Plans are elaborated, lack of funds remains a major difficulty to overcome and EU funds are among the few existing funding sources for energy efficiency works for public buildings. However, there are few Universities that have benefitted from financing opportunities and developed their campuses implementing energy efficiency in their buildings, but most of the Romanian universities, however, could not implement such works and focused on other main priorities (development of own operating capacity, extending faculties, attracting students).



The **Regional Development Agency Centru (RDA)** of Alba Julia, the sole legal entity responsible for implementing the regional development policies in Centru Region, presented the “Regional policies to enhance Energy Efficiency in Centru Region”. In short, after having illustrated the territorial, economic and social characteristics of the Centru Region, RDA presented its activity and the main results of the implementation of the programs financed by the EU and National

Funds. In particular, RDA explained the “Priority 3 - A region with environmentally friendly communities” included in the Regional Operational Programme 2021-2027 of the Centru Region, which provides, among other measures, to improve the energy efficiency of public buildings.

## NEWSLETTER n. 5 – January 2022



After an introduction concerning the EU Strategy for RES (from the Directive 20/20/20 to the Agenda 2050), the Renewable Energy Systems and Recycling Research Centre - RESREC of the **Transilvania University of Braşov** presented the achievements in energy efficiency in university buildings, in particular the two case studies concerning the "Colina hill campus" and the "Research and development Institute". In particular, various technologies for saving and energy efficiency applied in these buildings were presented: the "Solar House" (passive solar design), the geothermal heat pump, solar thermal collectors, different kinds of PV systems (individual modules, strings and platforms), and small wind turbines.



The **Technical University of Cluj-Napoca** presented the "state of the art" in terms of commitments to reduce the CO<sub>2</sub> emissions associated with the energy consumption and the transformation of buildings. Significant resources were allocated to the renovation of university campuses and to the preparation of a roadmap for reducing CO<sub>2</sub> emissions first by 2030 and then for total decarbonisation by 2050. Among the various cross-border projects underway with other universities and private companies that include the use of renewable energy it has been mentioned the one concerning the University swimming complex through a cogeneration plant, an axial wind turbine and a package of PV panels included in the concept "buildings integrated photovoltaics" that will be managed using an energy management software in order to successfully demonstrate the "demand-response" service for the consumers. Another pilot project is the eDREAM (Horizon 2020) through which was showed the possibility of replicating the same service at the level of residential consumers beyond the University area. Thanks to the resources allocated by the university management and by Norway for the transformation and deep renovation of the buildings, a project was started for the installation of a photovoltaic system to ensure the supplies of one of the university campuses. At the didactic level, through the projects SMePowerEfficiency and GEAR-at-SME the University supports SME located in industrial parks, professionals and city managers by inviting them to participate in on-line courses on energy efficiency sustainability and design/construction of nearly zero energy buildings (nZEBs). Other projects are DR-BOB (building energy management system in university buildings), RE-COGNITION (renewable cogeneration and storage technologies integration for energy autonomous buildings), Reflow (preparation of a roadmap for greening the Municipality of Cluj-Napoca), Cityxchange (Municipality of Alba Iulia).



After a presentation of its educational offers and activities, the **Valachia University Targoviste** presented the newly build campus site with an extension of over 142,000 m<sup>2</sup>, 7 operational building, 2 in construction phase with 6 more planned. The educational buildings are constructed with an energy efficient envelope and the research building was designed as a near-zero energy building. Within the University is active the Institute of Multidisciplinary Research for Science and Technology - ICSTM-UVT, founded on 2003, as an independent professional organization. The institute's primary research activities include: renewable energy sources, energy efficiency, building automation and near zero energy buildings. The ICSTM acts also as: a Living Laboratory, a Digital Platform Provider in the ERAnet Smart Energy System Program and a pilot site in a Horizon 2020 Innovation Activities project, called E-Land. For calculating the Smart Readiness Indicator, the Institute considers its own building which is endowed with several installations, renewables and energy storage, or: the HVAC system with 2 natural gas boilers, a chiller/heat pump, 3 Air Handling Units and about 45 fan coil units. Additionally, the building is endowed with PV panels, small wind

**NEWSLETTER n. 5 – January 2022**

turbines and solar thermal generators coupled with storage. All those systems are interconnected in a Building Automation and Control system, or BMS, which operates several energy efficiency scenarios as: light, ventilation and presence based with interlinked weather compensation assets operation. The newly developed Energy Management System covers the entire campus site and helps decision making in optimizing the energy-mix.



On 21<sup>st</sup> October 2021, the **3<sup>rd</sup> Campus Technical Meeting - CTM** was organised by the Finnish Partners with the participation of 32 attendants in on-line mode (please note that some of the connections included more than one person). After the welcome greetings, the LUT University's School of Energy Systems gave a general introduction to LUT University strategy and energy efficiency related activities, also with the support of the presentation of a short video. The next session focused on the role of The University Properties of Finland Ltd (SYK) in LUT sustainability and energy management. SYK, which at LUT University owns premises for a total of 54,000 m<sup>2</sup>, is a nationwide owner and developer of higher education campuses outside of the Helsinki metropolitan area in Finland. SYK invest actively in research

and development, concentrating the activity on developing properties in line with the principles of sustainable development. SYK also presented the development phases of the LUT data platform and shared some experiences and learnings from the process. In the following session LUT presented the preliminary results from calculating the carbon footprint for its campus of Lappeenranta. In the presentation, there was also discussion on the LUT's goal to be carbon negative by 2024. LUT's carbon footprint refers to climate (carbon dioxide) emissions caused by the activities of the organisation and its people. The reported carbon footprint includes both direct and indirect emissions. For example, cars owned by LUT cause direct emissions, while emissions from bought electricity and staff commuting are considered indirect. Finally, the Regional Council of South Karelia explained the content of the Smart Specialisation in South Karelia 2022-2025 strategy plan and the South Karelia participation in the HINKU network – Towards Carbon Neutral Municipalities. The 81 Finnish HINKU municipalities are committed to striving for 80% reductions in greenhouse gas emissions by 2030 from 2007 levels. The municipalities are reducing their emissions by increasing the use of renewable energies and improving energy efficiency, among other measures. The municipalities are also encouraging local businesses and residents to take climate action.

PO Box 310, FI-33101 Tampere  
Tel.: +358 0207 424 010  
E-mail: [info@sykoy.fi](mailto:info@sykoy.fi)  
Web site: <https://sykoy.fi>

Owners and holdings 2020

Owner	Percentage
Government of Finland	33.33%
Tampere University	14.37%
University of Turku	11.06%
University of Oulu	10.41%
University of Eastern Finland	10.38%
University of Jyväskylä	8.63%
Åbo Akademi University	4.81%
Lappeenranta University of Technology	3.23%
University of Lapland	2.24%
University of Vaasa	1.53%

**Establishment: 2009**

**Revenue: 170.5 mln. €**

**Owned buildings: 210**

**Total area: 1.3 mln. m<sup>2</sup>**

## NEWSLETTER n. 5 – January 2022

Finally, a brief overview on the main results/outputs to be achieved by the 6<sup>th</sup> semester. It is important to underline that, as already reported in the previous issue of the newsletter, due to possible extension of the pandemic crisis in the next months, the calendar of events and the realization/publication of the outputs may will undergo some variations.

- 1 Exchange of Experience (EE) Event in Poland
- 5 Regional Stakeholder Meetings (RSM)
- 1 Steering Group (SG) Meeting
- 5 RSM reports
- 1 EE event report
- 1 SG report: minutes and participants list
- 5 finalised Action Plans
- 6<sup>th</sup> newsletter
- Website and social media updates
- 2 articles on the institutional website of event hosting partners
- 2 press releases
- 5 appearances in media
- 1 videos on EEs + workshop semester 5
- 6<sup>th</sup> Progress report to JS
- Contribution to and exchanging with the IE policy learning platform, Priority Axis 1
- Final newsletter

[www.interregeurope.eu/s3unica](http://www.interregeurope.eu/s3unica)

 [facebook.com/S3UNICA/](https://facebook.com/S3UNICA/)

 @S3Unica