

Project S3UNICA “Smart Specialisation in UNiversity Campus” 2nd S3UNICA Newsletter – July 2020

The Covid-19 emergency and S3UNICA

During this Covid-19 emergency period, several sectors of social and economic life across the EU had to stop. These also included teaching at all levels, including University campus activities. In fact, already in the first 2 weeks of March, the Universities were closed in Denmark, Greece, Italy, Hungary, Ireland and Poland and, in the following weeks, in all the other EU Member States at national and/or local level. In the case of S3UNICA Partner Countries, the closure of Universities involved over 4.5 million students (see the table below) who, even so, were able to attend the courses and take exams with online tools/remote formats. Also, the S3UNICA Partners have “experienced” this new and unexpected approach, as on 29th April and 22nd May were held two online meetings which officially opened the 2nd semester of the Project's activities.

S3UNICA Partner Country	N. of involved students
Finland	295,528
Italy	1,837,051
Poland	1,550,203
Romania	531,586
Spain	300,794
TOTAL	4,515,162

Source: UNESCO

It is still too early to know whether this situation will imply a partial or radical change in the University teaching system, as well as whether there will be a thought on another consequence deriving from the closure of the university campuses: the drop in energy consumption. In fact, during the pandemic, Universities started centralized cutbacks in heating and energy use in buildings across campuses. Due to the significantly limited occupation rate in student residences, administrative offices

and laboratory spaces, many buildings have reduced or, in some cases, cancelled energy consumption. At the moment, unless further worsening in the Covid-19 outbreaks such as in the last few weeks in two Partner Countries of S3UNICA (Romania and Spain), it is not possible to predict how long the duration of the drop in energy consumption on campuses will last. In the short term, however, there is a risk that the projects aimed at the Energy Efficiency (EE) of University buildings will be postponed due to some factors: the slowdown in the production of the elements of the photovoltaic systems, the panels for thermal insulation or the decrease in the activity of the ESCOs and the design studies, the slowdown of the activities of Public Administrations and so on. However, these dynamics can disappear with the desirable end of the Covid-19 emergency, but the size, duration and outcome of the crisis on the University Campuses EE projects are still largely incalculable.

Low-carbon economy

The Partnership of S3UNICA

- PP1 (LP) - Friuli Venezia Giulia Autonomous Region
- PP2 - University of Udine (ITALY)
- PP3 - University of Trieste (ITALY)
- PP4 - Alba Local Energy Agency – ALEA (ROMANIA)
- PP5 - Andalusian Energy Agency – AEA (SPAIN)
- PP6 - University of Malaga (SPAIN)
- PP7 - Regional Council of South Karelia (FINLAND)
- PP8 - Lappeenranta University of Technology LUT (FINLAND)
- PP9 - Association of Municipalities Polish Network "Energie Cités" (POLAND)

The S3UNICA online meetings

On 29th April, the LP presented all the activities done during the 1st semester, namely the Kick Off meeting, the Steering Group Meeting, Regional Stakeholder Meetings, the release of the 1st Newsletter, realization of S3UNICA poster, vision, web-site and social media channels, reporting activities sent to the 1st Level Control. In addition, during the online meeting of 22nd May, the partners examined the Self-Assessment Tool, developed by PP2 and PP3, in close collaboration with the LP. On 17th June, the S3UNICA Partners and Stakeholders met online in the 1st Exchange of Experience meeting, and on 25th June in the Steering Committee.

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The core activities of S3UNICA are organized in several events/meetings aimed at stimulating the exchange of experiences, the communication and the dissemination. In this context, Regional Stakeholder Meetings (RSM) are organised every semester in each Partner Region to give the opportunity to discuss bottom up topics with a quadruple helix approach (industry, government, academia, and users/civil society), to increase the capacities of Local Authorities, to promote innovative products and public and private investments in the area of energy optimisation and development of new energy solutions. The results of the 1st round of RSM organized by the S3UNICA Partners are therefore presented below (in chronological order) .



On 21st November 2019, the two Finnish partners of S3UNICA, the **Regional Council of South Karelia** and the **Lappeenranta University of Technology (LUT)**, organised their 1st RSM. The primary target group were the managers of large real estate portfolios and representatives of the currently active large, multi-stakeholder projects relevant for S3UNICA. This group will be expanded to include a wider range of participants listed in the project plan during the 2nd semester. After the submission of different topics, such as the 2020 roadmap of South Karelia to cut the Greenhouse Gases - GHG emissions by 2030 (80% from the 2007 level), the current activities to support the

regional transition to low-carbon economy, the Smart Readiness Indicator - SRI method and its relevance to the green campus and low carbon real estate context, all the stakeholders discussed the current status and plans for improving EE in buildings. Finnish Environment Institute – SYKE of Helsinki will provide support for evaluating the impact of planned milestones. In this process several thematic workshops will be arranged during 2020 of which most relevant to S3UNICA targets include energy and sustainable living. The multiregional **LIFE-IP CANEMURE** project (*Towards Carbon Neutral Municipalities and Regions in Finland*) is providing means to organise the process. Stakeholder Meeting participants discussed the current status and plans for improving EE in buildings. Lappeenranta is part-taking in the multinational Interreg Baltic Sea Region project **Effect4Buildings** (*Effective Financing Tools for implementing Energy Efficiency in Buildings*) and is responsible for Work Packages covering the development of financial calculation tools and bundling models. The participating real estate managers (LATO and Lappeenranta Parishes) illustrated their business in developing low carbon management and promoting related investments in old and new buildings. Their real estate portfolio is highly varied and with different types of needs, there are also some external limitations for development (e.g. related to preserving of cultural heritage).



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On 22nd January, **Alba Local Energy Agency – ALEA** organized the 1st RSM dedicated to the stakeholders of S3UNICA and other actors (23 participants in total) in the field of EE of University campuses (University *1 Decembrie 1918* of Alba Iulia, *Lucian Blaga* of Sibiu, *George Emil Palade* of Târgu Mureș, *Transylvania* of Brașov, *Technical University* of Cluj Napoca, *Vasile Alecsandri*

of Bacău and *Valahia University* of Târgoviște) and public buildings (Regional Development Agency Centru - RDA, Alba County Council, Alba Iulia, Baia Mare and Sebeș Municipalities and so on). The meeting represented the opportunity to create the S3UNICA Stakeholder network in Romania and to determine their active involvement in achieving the Project main goal. The ALEA representative presented S3UNICA, underlining its purpose and the proposed methods to reach it. The meeting continued with the presentation of the Best Practices related to the increase of EE and the use of RES within the university campuses of Cluj Napoca, Brașov and Târgoviște. The representatives of these Universities emphasized the importance of diversifying the funding sources, but also of the need of collaboration between Universities regarding the development of networks through which Universities benefit from mutual support. The need to extend professional development programs in the field of energy management in buildings was also stressed. Thereafter, the representatives of *RDA Centru* presented the current state of European funding regarding the EE works of public buildings, also detailing the priority axis for EE in Universities. Finally, a local company dedicated to sustainable energy solutions, presented innovative solutions for the use of RES in public buildings and university campuses.



On 28th January the two S3UNICA Spanish partners, the **Andalusian Energy Agency - AEA** and the **Institute of Domotic and Energy Efficiency - IDEE (University of Malaga)** organised in Sevilla the 1st RSM with the involvement of 26 experts from several institutions (*International University of Andalusia - UNIA, Universities of Málaga, Jaén, Córdoba and Seville; Agency of Innovation and Development of Andalusia, Andalusian Energy Agency, National Institute of Aerospace Technique – INTA, Andalusian Technology Corporation – CTA, Knowledge Agency, Ministry of Economy, Knowledge, Business and University, General Directorate of*

European Funds, Ministry of Economy, Knowledge, Business and University, Union of Consumers of Andalusia – UCAUCE). The meeting was divided into 4 sessions. In the 1st session the S3UNICA Project was presented in all its aspects (objective, work plan, Best Practices, expected results and role of AEA and IDEE). The 2nd session consisted of the presentation of experts/institutions, the setting-up the Andalusian Regional Stakeholders Group and the exchange of Best Practices. The 3rd session included presentations on the Andalusian

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Government network addressed to public and Universities buildings, namely the Energy Management Network of the *Andalusian Regional Government - REDEJA* with more than 5,000 buildings, including in a voluntary basis almost all Andalusian Universities. In this session presentations from the *Andalusian Knowledge Agency*, the *Agency of Innovation and Development of Andalusia* and the *Technological Corporation of Andalusia* concerning innovative financing instruments addressed to Universities were also integrated. The last session included Best Practices from several Andalusian Universities campuses, as the *Smart Campus Plan* of the *University of Malaga*, from the *University of Jaen* and the *International University of Andalusia*, the *University of Córdoba* and the *University of Seville*. The session also included a presentation on a micro grid developed in Andalusia by the *National Institute of Aerospace Technology - INTA*.



PP 1 (LP)	 REGIONE AUTONOMA FRIULI VENEZIA GIULIA Direzione centrale ambiente ed energia Servizio energia
PP 2	 UNIVERSITÀ DEGLI STUDI DI UDINE
PP 3	 UNIVERSITÀ DEGLI STUDI DI TRIESTE  dipartimento di ingegneria e architettura

The 1st RSM of the Lead Partner **Friuli Venezia Giulia Autonomous Region** took place in Trieste on 30th January 2020. The LP together with the other regional partners, the **University of Trieste** and the **University of Udine** met their stakeholders (**AEIT - Italian Association of Electrical Engineering Electronics, Automation, Information Technology and Telecommunications** of Milan, **Elettra Sincrotrone Trieste**, the **ESCO Bluenergy Assistance S.r.l.** of Codroipo – Udine, the IT engineering consultancy private company **Overit S.p.A.** of Fiume Veneto - Pordenone and the **Friuli Venezia Giulia Energy Agency – APE** of Gemona del Friuli - Udine). During the meeting, S3UNICA was presented, from its conception to the objectives, especially at the

level of policies that can be launched (by public and private bodies), developed and transposed, possibly, into rules to be included in future projects, also considering the forthcoming opening of the next seven year period for European programming (2021-2027). Afterwards, the two Universities of FVG Region presented the Self-Assessment Tool (SAT), set up with the aim of measuring the Partner's university campuses energy consumption in order to find them solutions and policies for EE. In particular, the SAT, which, thanks to the contributions/inputs of all the partners, later took the form of a questionnaire (see below), includes the following 2 Steps:

Step 1 - Identification and Analysis: development of the SAT 1st part enabling regional stakeholders to identify their strengths and weaknesses on the innovation cycle, policy framework, technical and financial performance.

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Step 2 - Interregional mutual learning: after the 1st step, S3UNICA will plan strategies, technical solutions, policy framework and ecosystem of the beneficiary region in order to increase smart energy saving, to improve distribution and production measures, as well as methods, resources, results and acquired experience throughout the innovation cycle. The SAT will be implemented in two phases: the 1st phase has already been approved during the 1st Steering Group (SG) of last 25th June. On the basis of the information received, the 2nd phase will aim to define a common methodology to select technological roadmaps and the most appropriate policies.



Here is the updated questionnaire with the background information:

<https://ec.europa.eu/eusurvey/runner/SATS3UNICA>



To overcome the restrictions on mobility due to the Covid-19 emergency (the visit to South Karelia planned for May was postponed in 2021), on 17th June 2020 the two Finnish partners of S3UNICA organized and managed the on line event that included the presentation of final version of the SAT and the 1st Exchange of Experience (EE). In this way, more than 50 representatives of Partners and Stakeholders (companies, research and education institutions, public administration and NGO's) from Italy, Poland, Romania and Spain were

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able to live their 1st S3UNICA EE without leaving their desk at home or in the office. The event began with Partners and Steering Committee meetings for the presentation of the final version of the SAT, turned into a questionnaire in the online platform provided by the Joint Research Centre of the European Commission - EC JRC. Subsequently, in the virtual EE, the South Karelia Regional Council illustrated its development objectives (to become a carbon neutral region by 2030) and the regional Best Practices, or: the *LUT Green Campus* and SRI evaluations, *Greenreality Network* environment and energy PPP, City of Lappeenranta virtual power plant project, City of Imatra carbon neutrality lead by new bio-heat plant, and an innovative carbon capture and storage as energy business developed by the start-up *Soletair Power* (see below). In particular, LUT, which includes 270,000 m³ of university buildings attended by 5,000 students and 950 staff and 43,790 m³ for 415 inhabitants belonging to the Lappeenranta Student Housing Foundation – LOAS, is committed to making its campuses in Lappeenranta and Lahti carbon negative by 2024. The School of Energy Systems, Department of Sustainability Science of LUT presented the *LUT Green Campus* and the preliminary results from a Smart Readiness Indicator (see more: <https://smartreadinessindicator.eu/study>, conducted 2020). The stakeholder *Greenreality Network* (Public-Private Partnerships for developing low carbon solutions), a key partner to take smart specialisation into practice in South Karelia, has come originally from a group of Lappeenranta companies to network for added value and new business. The network has since expanded in geography and memberships. *Greenreality Network* presented the Case Virtual Power Plant of the City of Lappeenranta, a forerunner example of energy management in the city's real estate portfolio which demonstrates the possible cooperation between a large global technology company and a city with ambitious EE objectives. subsequently, the City of Imatra presented the activity of the *Imatran Lämpö* (Imatra Heat) company, an example of how one strategic choice can produce an efficiency and environmental leap for an entire city. In particular, *Imatran Lämpö* is a district heat and natural gas supply company intends to move from 100% of its generation from natural gas to 96% from RES (Biofuel - side products from forest industry - barks, wood chips and forest residues). Finally, *Soletair Power*, a start-up located in Lappeenranta and in close cooperation with the LUT campus knowledge community, presented its core activity, or the development of a concept to improve air quality in buildings by capturing carbon dioxide (CO₂) and converting it to a synthetic renewable fuel.



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A brief overview on the State of the Art of S3UNICA and explanation of the main outputs that should be achieved within the 2nd semester and therefore submitted with the Progress report.

1 Exchange of Experience (EE) event in Friuli Venezia Giulia (Italy)	The EE should have been organised in South Karelia, due to COVID-19, partners decided to postpone the event in summer 2021 and to organise a light online EE
1 Campus Technical solution publication	This deliverable will be drafted after the EE
1 Campus Technical Meeting (CTM) in Friuli Venezia Giulia (Italy)	Same as row 1
1 Steering Group (SG)	The SG was scheduled after the partner meeting, but considering that partners had still some questions on the SAT, the SG has been postponed on 25/06
1 self-assessment report	To be approved by the SG on 25/06 Partners have asked to receive additional instructions on data collection and the online questionnaire structure
1 SG report: minutes and participants list	To be done after the meeting on 25/06
1 EE Report	PP7 and PP8 will submit a light EE by the end of the semester
1 CTM Report	As row 1
5 RSM reports	PPs have to submit it to the LP together with the PR
2 nd Newsletter	To be finalised by 31.07
Project leaflet	To be finalised by 31.07
First draft of Catalogue of Good Practices	PPs have to send one good practice to the LP by the end of the semester
5 appearances in media	PP7 and PP8 should try to send to the media some news on the EE, all partners have to send news on the project to media
1 video on EE1	To be prepared by 31.07
Project website and social media updates	They have been updated
Press release template for partners	It was sent out during the I semester
9 articles on the institutional websites of all PPs	Proof to be sent together with the report
Template for invitations to regional stakeholder meetings and communication about the project	Done during the I semester
First progress report to JS	Submitted and approved

Meet our Partners



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