



SAUNAC



Welcome to the sixth newsletter for Sustainability Alliance of Urban Networks in Asian Cities (SAUNAC), funded by the European Union's Erasmus+ programme.



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The involvement of Higher Education Institutions and Stakeholders in Smart Sustainable City Development: International Workshop, Hanoi, 8 May 2019



Over 100 delegates came together for the SAUNAC International Conference and Workshop in Hanoi on 8 May 2019 to understand the progress of the SAUNAC partnership, its impact on Higher Education in Vietnam and how universities are driving forward innovative solutions in the achievement of Smart Sustainable Cities.

Hosted by Vietnam National University (VNU), the event was opened by Mr Vu Hoang Linh, Vice Rector of VNU University of Science, who emphasised that Vietnam has recorded robust development over the past 20 years, resulting in people demanding a higher living standard in a more sustainable manner.

Mr Linh noted the appropriateness of the workshop's theme in relation to the VNU University of Science's training development strategy, which is aimed at conducting research in basic and applied science. He stressed that over the previous two years, five European and six Vietnamese partner universities have been working together in the SAUNAC project. This partnership has yielded significant results by improving the quality of training activities and enhancing linkages between universities and businesses as part of the drive to boost the development of sustainable smart cities in Vietnam.

Tom Corrie, Deputy Head of Cooperation Section - European Union Delegation to Vietnam, underlined that higher education is a priority for both Europe and the Vietnamese government. He reminded us of the significance of Erasmus+ Capacity Building in Higher Education (CBHE) projects and their role in modernising and reforming higher education institutions, developing new curricula, improving governance, and developing relationships between higher education institutions and enterprises.



A panel discussion followed, on the value to universities and stakeholders on the work carried out and the relationships that have been established. Associate Professor Nguyen Thi Van Ha of Ho Chi Minh City University of Natural Resources and Environment suggested that working internationally, better engaging stakeholders and delivering lectures between universities at the same time were some of the benefits felt by her university.

The need for universities to work internationally to solve shared global sustainability commitments was reinforced by Professor Cyrille Krul from Utrecht University of Applied Science, who suggested "none of us have the solution on our own...universities have a clear role to play, together, to find solutions for sustainability".

Signify Lighting Company (formerly Philips Lighting) believes strong trust between universities and companies is possible, following the positive experience of collaboration with Utrecht University of Sciences and Vietnamese universities. Well-prepared students are extremely valuable for companies and SAUNAC is helping to facilitate this.

Panel members agreed that persisting with university/company collaboration can bring great results for both and students in the short- and medium-term. If universities invest time and effort in these relationships they can bring significant research potential in the longer term. As students start to apply technical knowledge to real-life company problems, the company gains business solutions, the student gains work skills, the university wins new collaborations, and the public sector can achieve strategies for sustainability.

Vietnamese university partners agreed that the most valuable aspects coming from the SAUNAC project for them are from the implementation of Active Learning, embedding the Triple Helix approach to delivery, and ensuring that activity is outcome oriented. In addition, the delivery structure at the core of SAUNAC has helped to create a sustainable partnership between universities in Vietnam that will continue into the future.

International Workshop for Smart City Stakeholder Development in Vietnam



Over 60 delegates, including scientists, researchers, state managers and enterprises, attended the International Workshop on Smart City: Stakeholder Cluster Development in Vietnam on 6 May 2019.

The event was hosted by Ho Chi Minh City University of Natural Resources & Environment to stimulate discussion and activity to share best practice in engaging stakeholder organisations in the goals of SAUNAC.

A collaborative approach is essential in order to find effective solutions to sustainability issues and Stakeholder organisations are an important part of the work being carried out within SAUNAC. By working with real life sustainable city problems and opportunities, the SAUNAC universities are able to connect their students to practitioners in the private and public sectors and facilitate collaborations between them through student projects as part of the Urban Sustainability Challenge. This not only helps the student to work collaboratively with external organisations, giving them opportunities to test their ideas for new solutions and give them a wider range of knowledge and skills relevant for their own future employability, it also provides the company or public authority with access to the latest research and knowledge for application in the real world.

A number of stakeholders presented their organisations and the work they are undertaking to achieve the development of a Smart Sustainable City. Mr. Le Quoc Cuong, Deputy Director of the Department of Information and Communications, said that the project's strategic task focused on building four core pillars: the Shared Data and Open Data Ecosystem; an Intelligent Operations

Centre; the Centre for Socio Economic Simulation and Forecast; and the City Information Security Centre.

Mr. Nguyen Quoc Cuong, Director of Binh Duong Department of Science and Technology shared experience on how Binh Duong has developed a Smart City based on their strong industrial potential, infrastructure and new cities which were planned following the international standards. Binh Duong has been working with Eindhoven city in the Netherlands as a strategic cooperation partner where the 'Triple Helix Model', with its engagement of Enterprise, Universities and Public Governance, is the key enabler for synchronous and sustainable development, placing citizens and enterprises at the center. In this way, the Province of Binh Duong is able to gradually transform the economy towards services and high-tech production, build a dynamic and creative living environment, attract talent, promote added value, reach the goal of the intelligent communities forum (ICF's criteria) and welcome the rise of 4.0 industry.

Participants shared their expertise and experience in an open and lively discussion panel. Topics included: how Higher Education Institutes are responding to the Human Resource demands for Smart Sustainable Cities; the successful key elements required for the creation of better public and private linkages in the development of the smart sustainable city model; how to gather and lead the young people with environmental knowledge understand the main concerns of young people to give them a platform. The roundtable speakers and participants then had an engaging discussion on start-up dynamics, especially for environmental public communication and media, and whether there is a difference between employees with and without training on sustainable and smart city knowledge in their companies.



Embedding SAUNAC activity into Vietnamese universities

Only one year after the course pilots were carried out in 2018, all of the SAUNAC partner universities in Vietnam are successfully starting to embed one or more of the SSVC courses in their own degree delivery.

The 5 SAUNAC Smart Sustainable Vietnamese Cities (SSVC) courses are:

- Course 1: Introduction and Methodology
- Course 2: Design for Social Sustainability
- Course 3: Sustainable Entrepreneurship
- Course 4: Engineering Smart Sustainable Cities
- Course 5: The Urban Sustainability Challenge

Vietnam National University – Hanoi University of Science (VNU-HUS)

The focus in VNU-HUS is on the Master in Environmental Science and in the new programme, Minor students will follow all five courses. In the existing bachelor degrees for Environmental Science and Environmental Engineering, students will follow one or two of the five courses. In addition, Course 5 will soon be embedded into the Masters in Environment and Sustainable Development, where students will undertake the Urban Sustainability Challenge course and work with businesses or public authorities on real life sustainability solutions.

Looking further ahead and outside of the participating team, other university faculties are starting to show an interest. In the Faculty of Geography, the Management of Resources and Environment programmes, which are designed for all levels (Bachelor, Master and PhD), are possible areas for inclusion of some of the SSVC courses. The university is working hard to find opportunities for expansion across the wider university and to facilitate multidisciplinary teams of students from different disciplines.

Ho Chi Minh City University of Natural Resources and Environment (HCMUNRE)

The Faculty of Environment is focussed on embedding the SSVC courses into their degree provision. However, it is also starting to widen the introduction of some of the courses into different departments, state organisations and enterprises by inviting a wide range of students, and staff to attend a Summer School in 2019 and professional training. This year's annual campaign in the city is to 'bring smart living to sustainable cities' and it will involve the whole of the Youth Union of Ho Chi Minh City and organisations form across the city, enabling the summer schools to take place in this context which is expected to significantly raise interest and participation from students across the city.

The number of stakeholders engaged by HCMUNRE and the quality of the relationships has been

significantly strengthened since the university held the international stakeholder workshop in Ho Chi Minh City in May. The Moodle platform is being introduced across the university and in addition, the participating SAUNAC staff are holding Train the Trainer events for other universities, becoming ambassadors for the SAUNAC methods and teaching in Vietnam. HCMUNRE also worked closely with universities and local authorities in Binh Duong Province to contribute to Binh Duong smart city project.

Hue University of Science (HUS)

Three modules have already been brought into the new Environmental Engineering programme, with a bachelor degree programme including: Smart Sustainable Cities Project; Design and Management Environmental Engineering Projects; Municipal Solid and Hazardous Waste Management.

The experience of the HUS team is being shared with other colleagues across the university through Train the Trainer events in the university in order to maximise and multiply the learning in the university and help other courses and disciplines bring new teaching methods into their provision.

HUS are also going further in bringing innovation into teaching in Laos, where SSVC courses and methods are being included in new joint programme provision. A new teaching curriculum for a PhD programme in Environmental Sciences is under development, which also includes two SSVC modules: Design Smart Sustainable Cities Projects: Social-economic and Sciences - Technology modules. This commitment to driving forward change in Hue City and beyond will see SAUNAC methods being included in the new STEM Innovation Centre being established in 2019.

University of Haiphong

The University of Haiphong has initially embedded Design for Social Sustainability and Sustainable Entrepreneurship into university provision and, by the end of May 2019, is also teaching Course 4 as a selective course.

The university is successfully working to bring SAUNAC into Economics and Construction degrees despite the challenges of being able to influence changes in content, however the university is proving that with the commitment and passion to influence change, it is possible to bring the new provision into these degrees one step at a time.

In September 2020, the university will introduce a new curriculum for Construction and this will include all five SAUNAC SSVC courses. Sustainability is not currently taught in the university so a priority is to develop a new curriculum and introduce it as a new programme with the involvement and commitment from related stakeholders.

Hanoi University of Civil Engineering (HUCE)

The main focus at HUCE is to bring innovation into the curriculum rather than creating a new major or minor.

As a member of the City IO Group, the university has achieved the new IO standard for teaching engineering and this requires a different approach, for example requiring students to have entrepreneurship in their course delivery. This provides an excellent opportunity to embed SSVC activities into the existing curriculum, improving the content without changing the name of the courses.

Danang University of Technology (DUT)

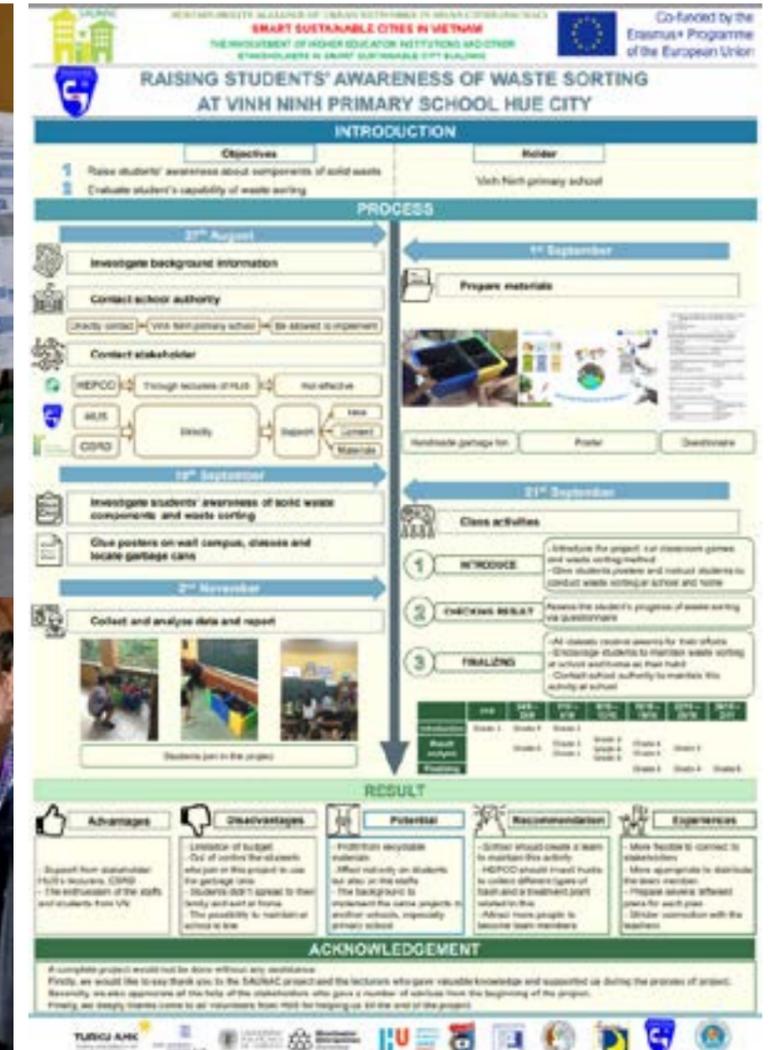
The university is currently teaching Urban Industrial Management, the content of which includes Circular Economy and Green Growth.

Course 2, Design for Social Sustainability, is being adapted and the knowledge from this is being included into its teaching.

DUT is also delivering a selective major course and is expecting to include courses 2, 3 or 4 as a selective option for students. Alongside this, there is a plan to develop a new major which will also include Design for Social Sustainability.

As with the University of Haiphong, the university will also take the City IO approach to include content in existing provision as well as including the Project Based Learning Approach in its teaching.

Student Projects presented at SAUNAC International Workshop in Hanoi



Innovation in teaching and stakeholder engagement are two features that run heavily throughout the SAUNAC activity.

The Urban Sustainability Challenge is one of the units that has been developed and is being implemented in degree provision in the participating Vietnamese universities. This unit facilitates student projects where students work with enterprises or public authorities in their city and gives students the opportunity to apply their knowledge to problems or opportunities presented by stakeholders. A number of these student projects were presented at the International Workshop in Hanoi, including recycling, landfill, flooding, bicycle sharing, and laboratory waste. Students presented an overview of their projects, carried out with companies or public authorities, including the process and results of their studies.

More information on all of these articles can we found on our website:

www.saunac.eu

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