



SAUNAC



Welcome to the newsletter for Sustainability Alliance of Urban Networks in Asian Cities (SAUNAC), funded by the European Union's Erasmus+ programme. The partnership between 5 European and 6 Vietnamese universities aims to encourage the economic and social development of Vietnam by giving universities and their stakeholders the tools to train professionals and students to produce innovative and viable concepts for Smart Sustainable Cities.



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Conference on Smart Sustainable Cities in Vietnam and Official Opening Ceremony

On 8th May 2017, SAUNAC held its opening ceremony that marked the beginning of 5 days of workshops on Smart Sustainable Vietnamese Cities (SSVC) in Hanoi, Vietnam.

Vietnam is undergoing a crucial period of economic development and intensive urbanization. Currently **35%** of the Vietnamese population reside in the growing number of 770 cities and towns, compared to the **25%** living in 500 cities and towns in the year 2000. This acceleration in urbanization is creating significant pressures and negative impacts upon the environment, infrastructure and sustainable development of the region.

The urban-societal needs of the country require an interdependent approach to obtaining sustainable cities. The shared vision of national, regional and municipal governments, for sustainable cities was appointed in Rio 20+. Support, training and research between Higher Education Institutions (HEIs) and authorities has been since developed and is essential for the SAUNAC project.



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“The SAUNAC project is a very good opportunity to support and enhance the training capacity of Civil Engineering... the comprehensive picture of Vietnam is intelligent and sustainable in the future.”

Dr. Nguyen Viet Anh Associate Professor

At the conference, participating organizations learned from each other's approaches and HEIs learned to work together on tackling societal challenges brought about by the ever changing cultural environment.

The objective of the SSVC conference was to raise awareness about the topic of Smart Sustainable Cities in Vietnam.

The conference successfully brought together relevant parties, such as universities, governments and businesses to instigate serious discussions about the future of Vietnam. Included within this issue will be descriptions and testimonies of some of the **innovative teaching and learning methods that were shared with participants.**

The conference was co-organised by the National University of Civil Engineering, Vietnam (NUCE) and Stichting Hogeschool Utrecht, Netherland (HU).

CONFERENCE & KEY-NOTE

The academic conference saw several speakers deliver lectures on Smart Cities that covered topics such as Security & Welfare, Educational Practices and IoT (Internet of Things) Practices. Dr. M.Martijn Rietbergen of HU and Prof.Dr. Tran Thi Viet Nga, of the NUCE, Hanoi kicked off the conference co-chairing lectures on Smart Cities: Theory and Practice, The Challenges and Opportunities of Smart Cities and Innovative Pedagogy in Higher Education.

MA. Khoa Viet Cuong delivered the lecture on The Challenges and Opportunities of Smart Cities referring to a case study of the city of Hiaphong. Difficulties such as poor communication, infrastructure and the lack of a qualified workforce were highlighted and explored in the context of globalization and the rapid increase of urban populations in the city.

Khoa Viet Cuong used a venn-diagram to illustrate how the Smart City would need to combine Institutional, Technological and Human factors and proposed a development in the **“learning organisation”** model within academic institutions, that would aid in the production of a modern and synchronized infrastructure.

In the second plenary session Assoc. Prof. Dr. Nguyen Viet Anh of NUCE talked about Waste Management in Smart and Sustainable Developing Cities. The discussion considered areas such as green cities, water and waste management, sustainable urban drainage and resource recovery from waste.

Several essential characteristics were outlined in the lecture that emphasised the importance of water and waste recycling and the use of locally processed materials.

Dr. Nguyen Viet Anh also prioritized the importance of infrastructure that promotes environmentally friendly transit. Within a Smart City accessible walking and cycling routes are an vital feature. In addition to this, there were many innovative ideas presented in regard to the integration of waste and water recycling that would best prepare communities for potential environmental disasters.

Many other speakers delivered keynote lectures throughout the day and participated in parallel roundtable discussions that covered a range of topics from Stakeholder

Collaboration to Education Practices. The conference concluded with a summary of the sessions that included a Q&A forum which was followed by a networking event.



STAKEHOLDER MAPPING FOR CREATION OF REGIONAL NETWORKS IN SUSTAINABILITY

Students undertaking the SSV module will complete **client-based projects** to give them experience of solving real problems in a professional context. For this module, universities will need to develop effective relationships with suitable 'client' organisations.

Relationship building can be time-consuming and challenging. Different organisational aims, work culture, rules and communication styles can all act as barriers, especially as staff time on both sides is limited. Prioritising which organisations to target is therefore important. During the conference a team from Manchester Met, led by Dr. Tamara McNeill and Ho Chi Minh City University of Resources & Environment delivered a workshop on how to prioritise stakeholders.

Delegates were split into three groups - based on their geographic area - to work through a stakeholder mapping template. The exercise focused on prioritising which stakeholders to approach for development of student projects and asked delegates to consider questions relating to the organisations' likely 'interest' and their 'capacity'. After an exercise to list potential stakeholders, delegates used a matrix with interest on the vertical axis and capacity on the horizontal to plot each organisation, enabling a shortlist of organisations with high interest and good capacity to engage. The final exercise was to identify three actions to progress development of those relationships.



BUSINESS MODEL CANVAS WORKSHOP

Claire Pattison, Enterprise Fellow at Manchester Metropolitan University delivered a workshop on the Business Model Canvas to an enthusiastic room of learners.

The session began with a presentation that introduced the basic concepts of the Business Canvas Model. The use of images and videos assisted Claire's explanation of the theoretical approach to the system as well as demonstrating the practical use of visual resources for strategising management decisions.

The second section of the workshop was activity based, encouraging the participants to apply these ideas to familiar Western and Vietnamese brands. Working in groups the participants engaged well with the exercise, immersing themselves in creative discussion.

The final exercise of the session gave the trainers an opportunity to critically reflect upon actual student's models. Scrutinising business model canvases completed by undergraduates at Manchester Metropolitan University and Turku University of Applied Sciences the participants were able to make many astute suggestions and offers of improvement.

On reflection, Claire described being;

“Impressed by the quality of work delivered by the trainees and despite beginning the session with reservations about the complexity of the concept, the trainees' critical evaluation of student work showed good level of knowledge and learning.”



ECO-PARK

500 hectare urban development located in the South East of the Capital, Hanoi.

Located by the Bank of the Red-River

20% of the area to be devoted to lakes and fauna, contributing to cleaner air & habitats for wildlife.

Projected completion date is 2020.

Practical Case Study of Sustainable Smart Cities

Nguyen Lan Huong, Nguyen Phuong Thao and Do Hong Anh of National University of Civil Engineering Hanoi were excited to promote Hanoi's latest sustainable development 'Eco-Park'.

The 'Eco-Park' city was described as a modern approach to city planning. Combining urban and green spaces, the infrastructure has been designed to utilise renewable energy and provide green transportation services. Planned to be the first residential community to follow the ecosystem living model, residents will be able to access nature through parks and open living spaces, whilst shopping centres and tourism sites will generate revenue for business owners.

The SAUNAC project team were shown existing facilities and residencies on a tour of the area. With owners having the opportunity to lease their properties as homes or small businesses, the project is already playing a part in stimulating the local economy.



E-LEARNING ENVIRONMENTS

Martijn Rietbergen, Casper Zuidwijk, Lenneke Kok and Patrick Van Der Bogt

of the University of Applied Sciences (HU), delivered informative sessions on applied or blended learning, a key strategy of pedagogy at HU.

The speakers were keen to introduce different approaches to the learners.

Traditionally, education takes place within a classroom but blended learning is a good mix of learning in different places with digital learning being an increasingly important way of accessing information.

Digital learning environments such as 'Moodle' let learners access and share assignments, research and course material at all times, facilitating a network between different campuses and colleges.

In this workshop, trainees were given the task of finding real sustainability challenges by going out in Hanoi to talk with local residents and business owners.

Casper Zuidwijk, the ICT Commissioner of HU, directed these tasks to demonstrate how e-learning environments such as 'Moodle' can be utilised in modern research, as essential tools for reviewing, sharing and storing data. The aim of this task was to find specific challenges that could be solved using computer systems.

Martijn Rietbergen noted the;

“Rather unconventional teaching and learning approach was well-appreciated by the trainees.” Active involvement with the community, meeting stakeholders and close group work provide examples of the interdependent relationship that is required for Smart Sustainable Cities.



METHODOLOGY

Knowing and applying the design process is an important aspect of planning & implementing strategies in modern enterprise.

The 'Design Thinking' process is a solution centric methodology as opposed to a problem-focused rationale. As an approach it aims to break down a large project into manageable parts.

The framework instigates innovation through an understanding of the unarticulated needs of the clients.

Therefore, the practice of empathy and altered perspectives are important roles in the methodology. The process involves reframing challenges through an immersion in specific social experiences. By identifying themes early and evaluating their success through recording user experience, the design process lets innovators turn around ideas and start generating results quickly.

Lenneke Kok of HU, led the workshop on methodology which aimed to come up with fresh and different ideas by using generative techniques. The participants created stakeholder maps and storyboards to identify who they were aiming to benefit and how they were going to achieve their goals.

The trainees were able to generate many suggestions on how to improve their approach by using the design process to meet challenges relating to transport, food quality and environmental preservation.

PEDAGOGY

Innovation pedagogy is a didactic operational model that supports the work of further education institution's integration of regional competence and innovation networks.

The explanation of pedagogy was structured around three lines of enquiry:

WHY? HOW? WHAT?

By encouraging the trainees to consider the reasons and possible implementations of the framework the session hoped to inspire the imagination of trainees and find new approaches in the development of Smart Cities.

Innovation pedagogy encapsulates a variety of methods and activities for learning. Trainees were asked to analyse the learning environments and explore possible ways of implementing the 'Hybrid Learning Model' or 'Blended Learning'.

Finnish examples of innovation and competences were shared with the trainees who were then asked to conceptualize a learning environment that could be utilized within Vietnamese universities. In groups the participants designed a 'student journey' that involved the collection of student feedback and the use of multimedia technology to develop their learning model.

Based on their findings the participants were able to sketch a thorough and effective plan for disseminating knowledge and learning activities amongst their own students.

The trainees were very dedicated throughout the workshop and were able to relate the conceptual methods of pedagogy to their own experiences of teaching and learning. By sharing and discussing ideas, and providing relevant feedback and coaching, the groups were able to establish a collaborative approach. The pedagogical model was used effectively and efficiently by all the groups, and whilst there was room for improvement in some areas the workshop proved to be a productive session that left trainees feeling optimistic and motivated.

WASTE MANAGEMENT

Henna Knuutila, Senior Lecturer at Turku University of Applied Sciences proposed the use of 'Research Hatcheries' for confronting the challenges of Waste Management.

The pedagogical method, originally developed at TUAS, is a concept that aims to combine learning, innovation and research by narrowing the gap between the demand for

professional skills and those acquired by students in the classroom. The goal of research hatcheries is to serve the purposes of working life by combining teaching and learning with research and development activities.

Henna's session involved an introduction to waste and its role in the circular economy.

The need to move away from a linear form of economy is becoming an increasingly urgent global issue, and according to a recent report by Research and Markets "Vietnam Solid Waste Market Analysis", Vietnam is currently one of the fastest growing and untapped solid waste management markets in the Asia-Pacific region.

In Henna's session the trainees were asked to propose solutions for the health and social problems caused by increased waste as well as methods for harnessing the economic opportunity recycling and reprocessing may offer.

Participants were divided into groups containing various skill sets and were asked to source information through discussion. Through an awareness of each other's roles and expertise the groups worked together to produce new ideas about how to manage waste in urban environments.

At the end of the session, both Vietnamese and European learners were invited to present their findings to the rest of the group, bringing together all of the ideas discussed during the workshop.

THE NEXT GENERATION OF TRAINERS IN SMART SUSTAINABLE CITIES

After a week of workshops, activities and lectures the participants are now equipped with the necessary ideas and information to start working towards smart and sustainable living in their own universities and communities.

In recognition of their dedication and commitment to the project, participants were awarded certificates at an award ceremony.



WHAT'S NEXT?

The Erasmus+ project SAUNAC is currently developing an academic program for future Vietnamese professionals. The urban development of Vietnam will be the main focus of the program that will be applied to relevant projects in local regions' universities and businesses. These pilots will take place in each Vietnamese partner University from Autumn 2017 into 2018, developing an innovative way to assess students. The universities will implement the three-dimensional FINCODA model of Creativity, Critical Thinking and Innovation Management (which includes the sub-dimensions of Initiative, Teamwork and Networking).

By demonstrating the relevance of the academic program, and promoting its sustainability, the facilitating cooperation agreements between the European and Vietnamese Universities hope to ensure concrete and immediate positive results from these pilot projects.

PARTNER INSTITUTIONS



CONTACT DETAILS



www.saunac.eu



Sustainability Alliance of Urban Networks in Asian Cities



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