

learning  
for the cities  
of tomorrow

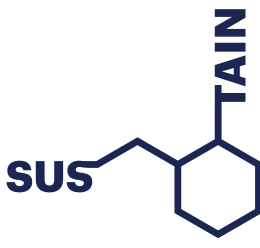
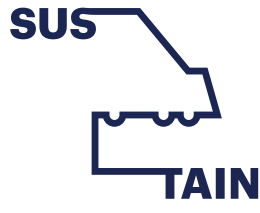
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academics

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**Strengthening higher education in urban  
sustainability and transitions towards  
internationalization of academic institutions  
and networks.**

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**In the next 50 years about two thirds of the world's population will be living in cities and urban areas. This rapid urbanization puts high pressure on existing resources, infrastructure and creates many challenges for a sustainable urban development.**

#### **Learning for the cities of tomorrow**

By promoting sustainable urban development in higher education and stimulating cooperation between European and Asian higher education institutes, SUSTAIN project aims to provide a platform for academics and lecturers that will facilitate their collaboration and cogeneration of knowledge.

The SUSTAIN modules described in this brochure are a sample of the current work our participating and collaborating institutes are doing on curriculum development in the field of sustainable urban development. Become acquainted with the latest innovations and approaches to sustainable urban management and development and learn how you can become part of a broad network of European and Asian Institutes working on innovative educational packages in the field of sustainable urban development.

#### **Main activities & products**

**Throughout the project, the following SUSTAIN products will be delivered:**

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##### **knowledge**

Educational modules, e-courses, decision-support tools, Lecturer's Handbooks

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##### **information & communication**

e-platform: [www.sustainedu.com](http://www.sustainedu.com)

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##### **workshops, conferences and promotional events**

Beijing, China – July 2014  
Ahmedabad, India – February 2015  
Rotterdam, the Netherlands – September 2016

Academics in Asia will be invited to workshops in order to be included in discussions on developing educational packages and modules in different thematic areas of sustainable urban development.

Cities associations will be involved in the project in order to bring best practices in HE through relevant case studies of SUD themes.

## SUSTAIN project objectives

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**develop innovative educational packages on Sustainable Urban Development.**

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**promote collaboration and international cooperation between European and Asian Higher Education Institutions in SUD.**

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**improve the quality of Higher Education in Sustainable Urban Development (SUD) in Europe and partner and collaborating Universities in Asia.**

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**establish links and bridge Higher Education and practice in SUD.**

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**increase the employability of students.**

## sustainable urban water management

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The explosive growth of urbanization today is resulting in a growing pressure on resources, especially water. Simultaneously, most cities are situated in deltas which are vulnerable in case of flooding. Enhanced by climate change, urban growth gives rise to many water related problems such as sanitation issues, water scarcity, and decline of water quality.

Therefore, sustainable water management is a core issue of urban development and management and relates to many challenges of living in urban environments.

Through building analytical understanding and skills, this module learns to describe and analyze the multidimensional issues of urban development that relate to urban water in the context of climatic change. It provides knowledge and insights about new management approaches and innovative solution strategies.

## urban infrastructure

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Technical infrastructures such as energy, water, waste water, telecommunication and transport systems guide and facilitate urban functioning and urban life in a multitude of ways.

They are backbones for urban livelihoods and economies, integrate (or splinter) cities socially and spatially, and mediate resource flows between nature and the city.

The urban infrastructure module introduces the history, the key characteristics and the problems (ecological, social and economic) of these urban support systems, their co-evolution with urban developments and the imperatives for changing these systems in the light of urban splintering, public health problems, and environmental degradation.

## urban transition management

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In this module, we introduce the transition management approach for urban areas as we have researched and applied it in five different cities in Europe: Rotterdam in the Netherlands, Ludwigsburg in Germany, Ghent in Belgium and Aberdeen in UK as well as in Port Vila in Vanuatu, Pacific Islands and in Honduras.

We adopted a process approach to co-create with policy entrepreneurs and society's frontrunners strategic agendas and transition pathways to foster transformative change in negotiated domains employing tacit and expert knowledge in a co-creation process.

The module will use the case examples to guide students and novice researchers to a process-content thinking and to reflect on how to navigate societal complexity while mobilizing innovative and transformative societal potential towards action for sustainability.

## sustainable urban tourism

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Heritage cities and sites can be considered public goods with a unique character.

This particular combination does not allow tourism destinations to leave their use for tourism purposes to plain improvisation. The absence of an adequate tourism policy either leads to underutilisation or overutilization of these cultural artistic resources. By understanding the issues that are relevant for heritage cities, an adequate management strategy can be designed.

This module focuses on common issues that tourism cities face, explains the merits of a sustainable tourism paradigm as opposed to tourism development through market forces. It provides suggestions for public and private policymakers that may help to enforce a coherent development strategy for sustainable tourism.

## the governance of sustainable mobility and urban planning

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Technological innovations have made possible the development of sustainable mobility.

Regardless of the availability of such technologies, sustainable mobility and a sustainable physical environment are often difficult to be realized in practice. This may be caused by problems and challenges that are inherently related to the governance of sustainable mobility projects and urban planning initiatives.

In this module you will learn more about the different aspects of governance in these areas, its problems and challenges, policies and solutions, cases, transitions in governance, trends and needs. It aims to provide the intellectual and practical tool to be successfully involved in the management of sustainable mobility and urban planning initiatives, as a student, researcher, policy maker or project manager.

## corporate sustainability and green cities

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With more of the global population now living in urban environments, cities across the world are facing significant environmental and social challenges.

Business is a critical urban actor as it both directly contributes to sustainability problems but has also the capacity to provide solutions.

A growing number of corporate executives are taking real leadership on the complex sustainability issues of cities and seek new business models to create real value to society in the long-term. In this module we consider how business leaders are taking this challenge seriously.

Cutting-edge examples of practice are used to present current approaches and frameworks are provided for how students may both analyze these and also seek to formulate their own in the future.

## climate resilient urban development

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Most of human causes of climate change are linked with cities and cities are facing significant impacts from extreme weather events that come with this.

Cities are facing multiple climate induced impacts that threaten urban populations and assets. This module lays the foundation for understanding how cities can manage the impacts of climate change. It does so by introducing the basic concepts on and sound examples of urban climate resilience and climate change adaptation.

Moreover, using case studies in different cities, this module broadens the discussion on building urban resilience by engaging students to apply their knowledge and skills in a simulated exercise on local climate urban resilient action planning.

## **sustainable urban energy planning and low carbon development**

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Today the growth and operation of cities and urbanized areas absorbs roughly 3 quarters of the world's fossil fuel production.

Cities worldwide will soon be under great pressure to find alternative sources. Because of the fatal triad of carbon emissions-induced climate change, fossil fuel depletion and mounting environmental damage due to the use of coal and oil, cities will have to be powered differently.

The module gives an introduction on how to plan and develop urban settlements from a sustainable and low carbon energy point of view.

## **introduction to sustainable development and planning**

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The broad concept of sustainability is becoming a goal of official city plans and is also informing many other disciplines.

The challenge of sustainable urban development calls for professionals who can bridge disciplinary borders. Well qualified individuals with a holistic understanding of the various areas in this field will be able to successfully adapt design practices to the environmental conditions and societal needs of the future.

The module gives an overall introduction on how to use a holistic approach in planning and developing urban societies in a way that brings together human and environmental needs.

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