ALL JUST RUBBISH?

Summer school programme
on the themes of
green product design, waste
and material life cycles

26th June – 15th July 2011
ETH Zurich

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Ideas into action

With the summer school 2011, the ETH Zurich wants to introduce innovative product design and find new ways of confronting waste and related problems responsibly. For three weeks, the ETH Zurich will create an environment in which interdisciplinary and international teams can work together with industry partners to create solutions for concrete case studies.

Students will increase their knowledge on global waste flows as well as on their ecological impact and risks. They will gain instruments with which to analyse the entire life cycle of individual products and generate creative alternatives. This new knowledge will be used on concrete problems in order to develop ecologically-sound product alternatives.

Important learning goals are as follows:

- Basics of "Green Product Design"
- Waste Management
- Life Cycle Analysis
- Concepts including Cradle to Cradle, Biomimicry, Recycling, and Upcycling
- Creative technologies

A Global Challenge

Many environmental problems are outside our daily control: not so with how we deal with litter. We live in a consumer's world. Life cycle of commodities is constantly decreasing while resources become more and more scarce. Simultaneously, the amount of waste has increased enormously over the last decades – with global consequences:

- The "Great Pacific Garbage Patch", a gigantic carpet of litter in the middle of the Pacific Ocean, is estimated to be four times the size of Germany, and still growing.
- In countries in Asia, Latin America and Africa, waste production has a direct impact on the climate. Waste disposal sites here are one of the decisive sources of greenhouse gases and account for approximately 40% of annual methane emissions.
- Last but not least, mountains of electronic scrap need radical rethinking. Two thirds of the world's population own a mobile phone and each year 1.2 billion new mobile phones are sold. Valuable raw materials are being consumed, only to land en masse on rubbish heaps.

A change in thinking is required, regarding not only the removal of trash, but, equally as important, regarding production and design. One of the most important challenges in sustainable development will be to close material life cycles and support green product design, thus rendering rubbish obsolete.

Outline

The participants of the summer school will be composed of 15 students from the ETH Zurich and 15 students from other academic institutions, in addition to faculty members and industry partners coming from various fields of expertise.

During the first week, students will receive an introduction to all topics relevant to eco-design, waste and life cycles. This will occur through a series of lectures and workshops conducted by both local and international experts as well as inputs speeches by and discussions with sustainability pioneers. In weeks 2 and 3, students will be split into the three thematic groups to carry out a guided case study from an industry partner, and to gain further input through lectures, workshops and excursions in one of the three topics:

- Food Packaging
- Washing Machines
- Wooden Furniture

Please find more information about the lecturers and each case study on our website.

Who should apply?

The Summer School 2011 by ETH Sustainability will invite 30 Bachelor, Master and PhD students from a wide spread of nationalities and disciplines. The course aims to ensure a well-balanced mixture between science, technology and design.

Candidates will be selected from all relevant disciplines (e.g. Materials Science, Environmental and Social Science, Product Engineering or Product Design, Architecture, Fine Arts, Business, PR or Marketing). Applicants will be evaluated on their academic strength, creativity, technical or design-related expertise, and their dedication to solving humanity's grand challenges.

A strong team

Successful projects are the result of dedicated individuals and teams. The ETH Summer School Programme will be organised by ETH Sustainability, the coordination office for sustainable development at the ETH Zurich, together with the Department of Civil, Environmental and Geomatic Engineering (D-BAUG) and the Department of Environmental Sciences (D-UWIS).

Input and support for the formulation of individual case studies is provided by selected firms and institutes that occupy a leading role in the field of sustainable development: International Packaging Institute (IPI), awtec, Coop, Eawag, Empa, EPEA Switzerland, and V-ZUG.

The Club of Rome is a project partner in the preparation and realisation of the summer school.

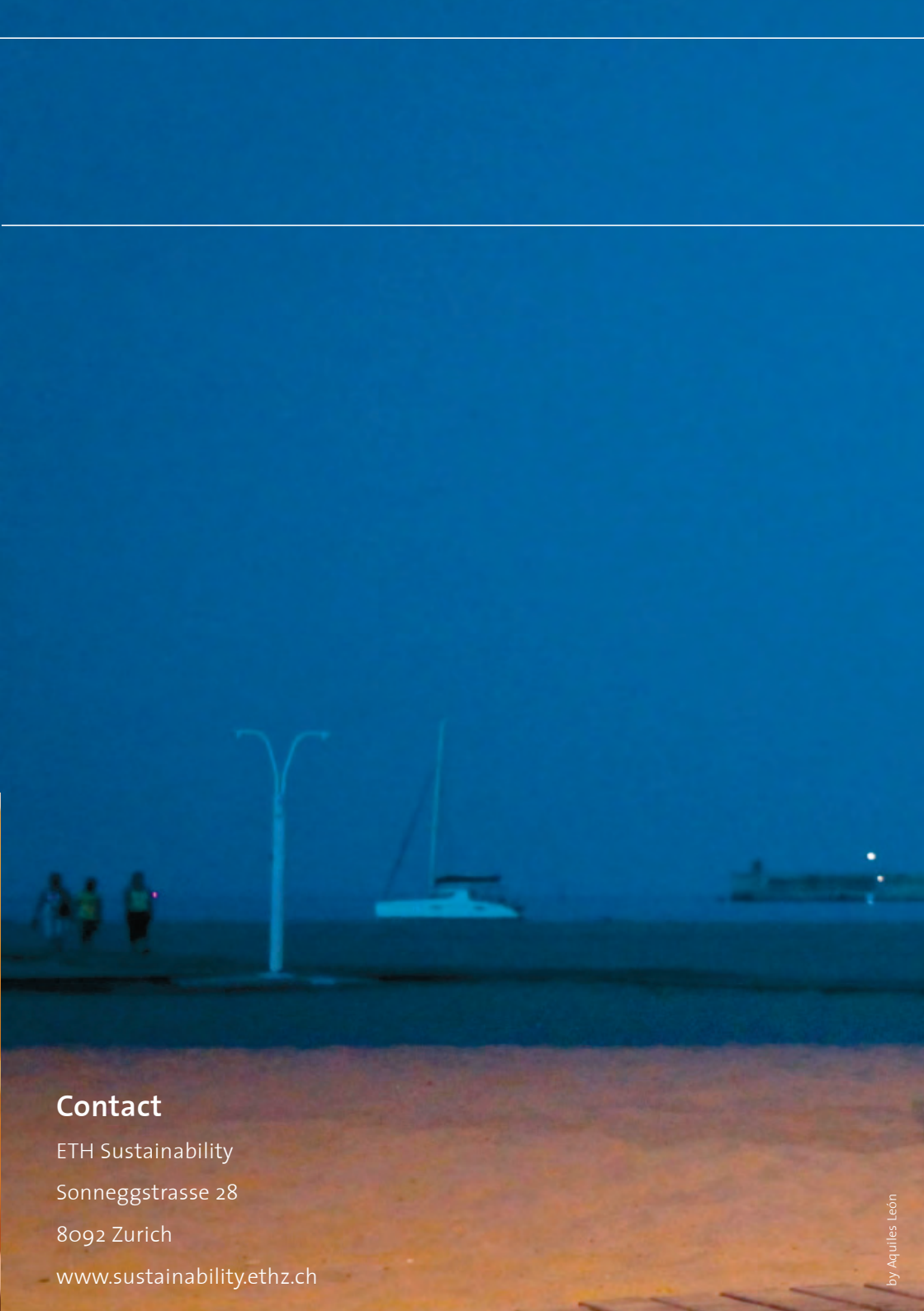
Application

The ETH Summer School Programme is designed for 30 students from a wide range of backgrounds and fields of study. Applicants must send a one-page CV and one-page letter of motivation stating their interest in one of the aforementioned topics of Food Packaging, Washing Machines, or Wooden Furniture (admission will be for one of these three thematic case study tracks and cannot be altered once accepted).

Deadline for application: April 25th 2011
Notification of admission: May 3rd 2011
Please send your complete application to catherine.lippuner@sl.ethz.ch

Costs
The course fee for the three weeks is CHF300, including accommodation and board during the first week. All students are responsible to find accommodation for weeks 2 and 3 (the organisers can assist in finding suitable accommodation).

All information about the Summer School can also be found on our website.



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