WORK ING AND LEARNING IN A WORLD CRADLE-TO-CRADLE

UNIVERSITY OF ORADEA
FACULTY OF ENVIRONMENTAL PROTECTION

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- **In Romania, the National Education Law has the vision to promote a values-oriented education, creativity, cognitive, volitional and action capabilities, fundamental knowledge and knowledge, skills and abilities of direct utility to the profession and society.**
- **The mission of teacher training is undertaken by law through education infrastructure mental Romanian society in line with the new requirements derived from our country as a member state of the European Union and the operation of globalization and sustainable generation of a highly competitive national human resources capable to function effectively in today's society and future.**
- **Romanian school's educational ideal is the free, full and harmonious development of human individuality and independent personality formation assuming a value system that are necessary for personal fulfillment and development, entrepreneurship development for active citizen participation in society for inclusion social and employability.**

That means not only providing knowledge about C2C, but also providing skills to work with C2C and – very important – raising awareness and creating positive feelings about C2C.

Competence - based education

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Awareness + Knowledge + Abilities.

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The University of Oradea has 15 faculties including the Faculty of Environmental Protection where the 10 areas of study all have a very clear and obvious connection with the environment.

Environmental Engineering Field study all components of the environment: water, air, soil and waste. Waste component is taught within a discipline called „Waste Disposal and Recycling of Waste" where students learn all about: how come, components, ways of sorting, recycling, incineration and new ways to discover the nutrients in the waste as Cradle-to-Cradle concept.

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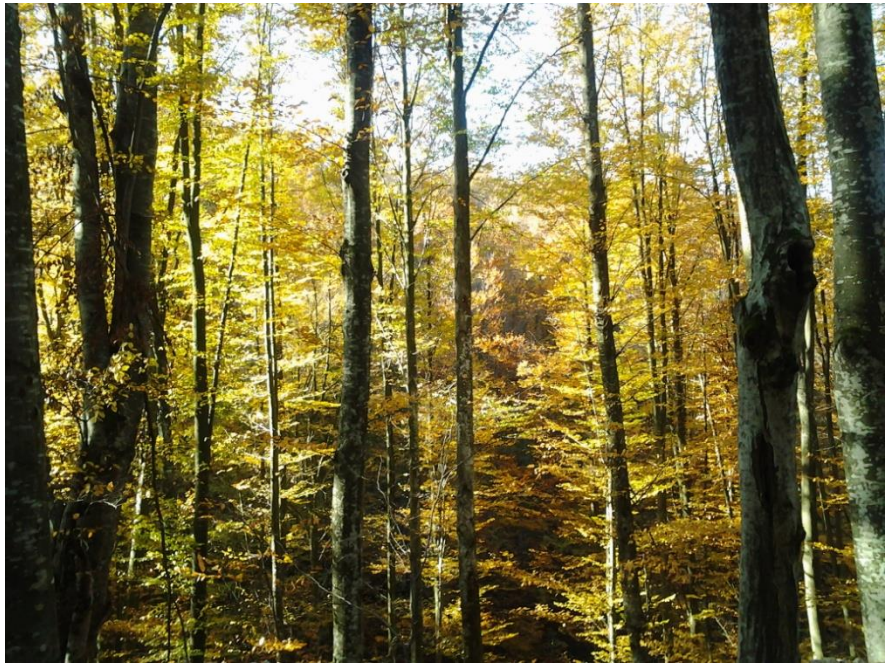

The processes of every single organism in a living system contribute to the health and well-being of the system as a whole. The leaves of a tree, for example, its "waste", fall to the ground where they are broken down and become nutrients for other organisms. Microbes feed off this organic "waste" and, as a result, return many valuable nutrients to the soil that the tree can profit from. The "waste" of one organism is thus nutrients for another. Plans made by humans that attempt to replicate this nutrient cycle – cycles in which waste no longer occurs – form the very the foundation of the material flow systems that are a fundamental component of the Cradle to Cradle® method of production.

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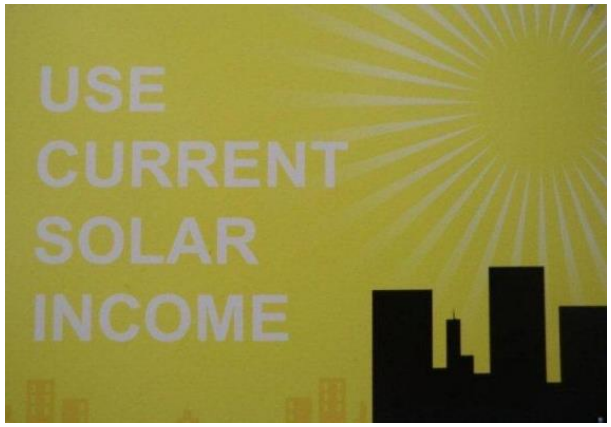
The first industrial revolution obtained its energy predominantly from the reservoirs of the past. Systems that are driven using solar energy are systems that are using today's energy without having to put the futures of our children and their children at risk.

The direct capture of solar energy is one possibility. Wind energy, created as a result of sunlight causing thermal differences in the atmosphere, is a further source. Biomass and other energy sources also form creditable possibilities.



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Natural systems function and flourish through complexity. Compared to the standard solutions of the industrial revolution and to the uniformity so highly prized by globalization, nature supports an almost unending abundance of variety and diversity.

How we go about manufacturing products must be similarly tackled with the same flair for diversity and variety.

To concentrate on only the one criterion is to create instability and imbalance in a wider context and represents what we term an "ism", an extreme, or completely detached, solution that is outside the actual structure of the problem.

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Therefore, we introduced this subject in the curricula at both undergraduate as well as master classes and practical work.

Thus, the Cradle to Cradle course provides students comprehensive knowledge about the Cradle to Cradle Design Paradigm. The students learn about the Cradle to Cradle philosophy, concepts and their implementation.

Based on the Cradle to Cradle philosophy, the hours of work we learn about new dimensions of quality for products for the biological metabolism or technique is applied. This means that products are made from pure components that are easy to disassemble, in order to create new products in both the biological and technical cycles.

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Students are gaining in-deeps knowledge and tools to work on Cradle to Cradle projects not only in industrial design but in all fields such as architecture, infrastructure, energy, politics, scientific research, etc. Not only materials and products but also logistics, partnerships, business models, and material pooling are developed and/or re-designed according to the C2C requirements. A special focus of this course is communication tools. Students learn how to explain, communicate and advertise the benefits of Cradle to Cradle to different audients.

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- **The aim of the course is to transform processes, products and business models into the new dimension for the Cradle to Cradle economy (transition/evolution/revolution).**
- **The course is challenging students to rethink current practices and develop Cradle to Cradle products that are beneficial to the environment, lucrative for the economy and good for society.**

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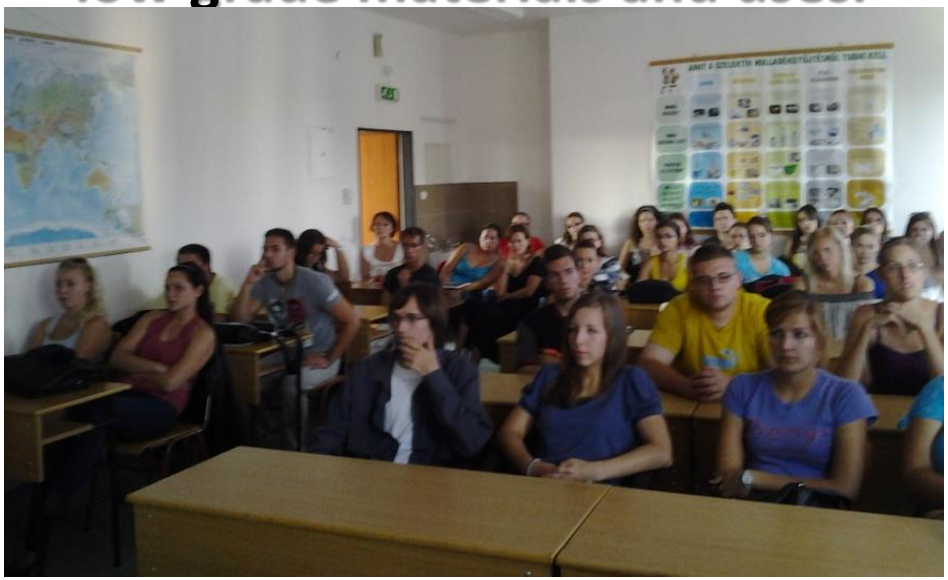
They look to nature and find a production system we can follow, a system of abundance rather than reduction, in which waste equals food. They show how we can mimic nature's model to our commercial and environmental advantage, demonstrating how products can be designed as biological and technical nutrients that will continually circulate as pure and valuable materials, eradicating the need to 'recycle' - really down cycle - products into low-grade materials and uses.



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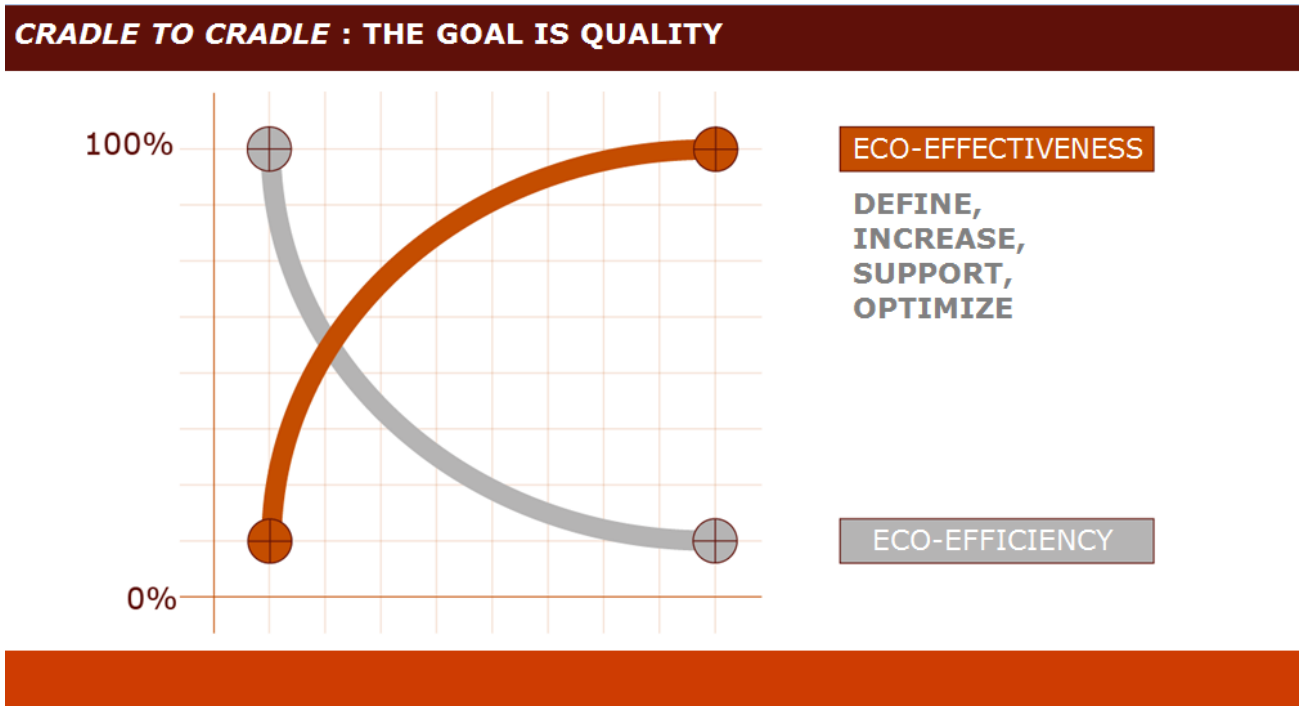

C2C has to become part of the corporate training system and the educational system and learning curriculum in technique universities from country like: Netherland, Germany, Sweden, etc.

In Romania is much need to have C2C on university level, because future process operators, engineers, designers and top management also have to know about how to work and produce.

C2C fits the E.U. policy of achieving a Carbon Low Society and for New Skills for New Jobs.

This year thanks to the Erasmus program for teachers and students I taught this concept from the Faculty of Environment at the University of Nyeregyhaza, Hungary who were very interested and put many questions.

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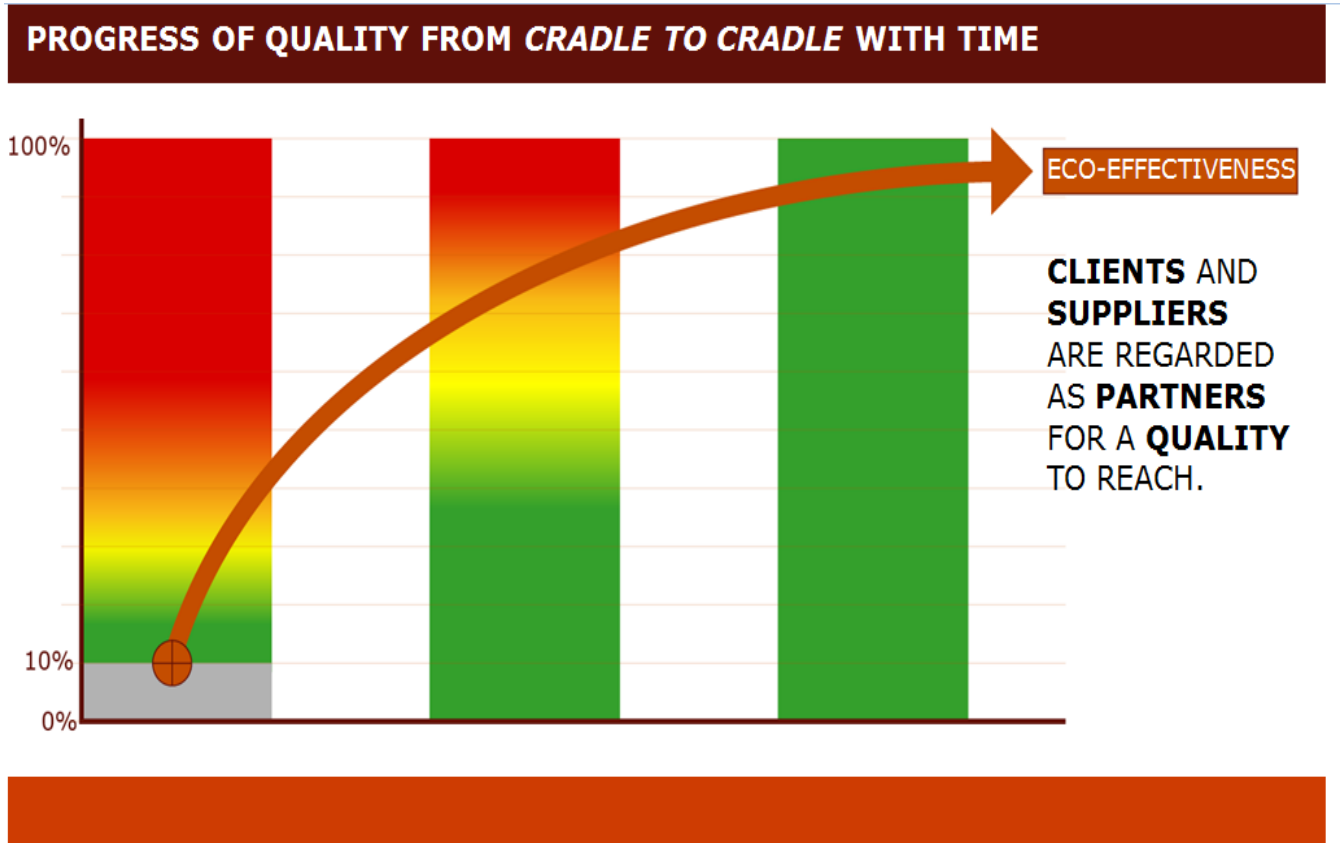

This is the curve of evolution of our faculty after you implement this concept. Our goal is to include this concept as a separate subject in the curriculum in all specializations to give C2C specialists in all areas that are taught at our University.

THANK YOU!