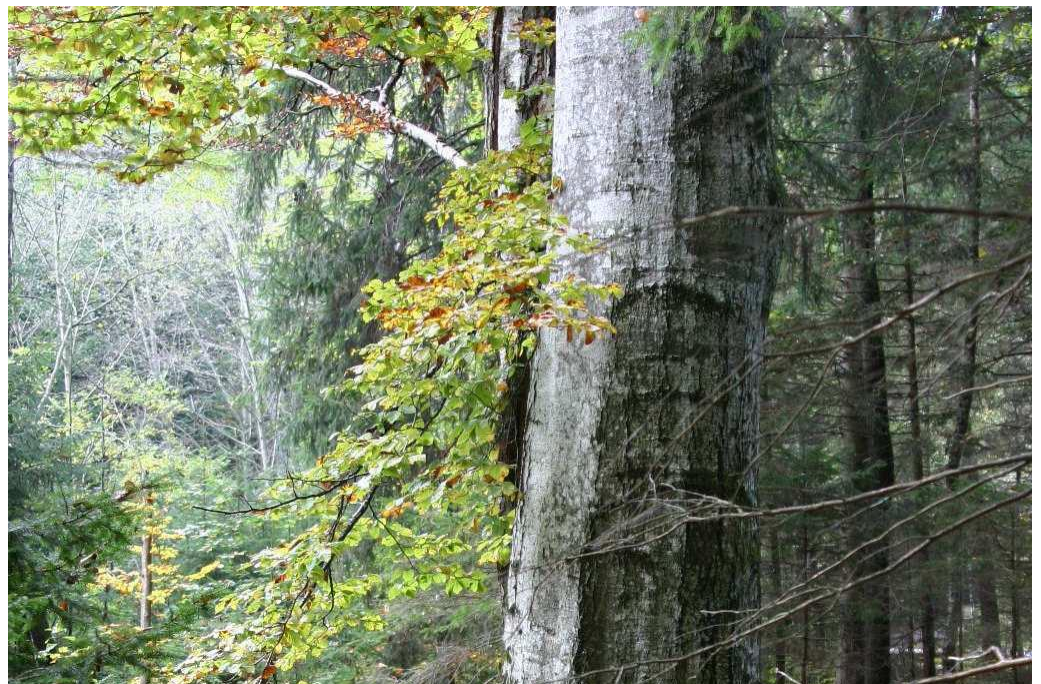


CRADLE TO CRADLE



There is no waste everything is a nutrient

Report on theCradle to Cradle conference day 1

1. The agenda

Thursday 19 January 2012

THE PRACTICE

9.00	<p>After breakfast we start at 9.00 o'clock.</p> <p>Because we are with about 30 participants from a number of countries and we do not know each other very well, the first part of the programme deals with knowing each other a little bit better.</p> <p>The focus of the programme on the first day is on the practice of the C2C approach in a school for vocational education and in a company.</p> <p>We have planned two visits :one to the Koning Willem I College (King William I: KWIC)in 's-Hertogenbosch and the other to Desso Carpets Company in Waalwijk. There will be introductions to the C2C approach in education and in companies.</p> <p>During the second day of the conference we go more in depth into the principles of C2C and the desired outcomes of the project and the contributions from all the partners.</p> <p>Who is who exercise?</p>
9.00	<p>Short introduction of the sustainable context of Zin</p>
9.45	<p>By bus to Koning Willem I College (KWIC) in 's-Hertogenbosch.</p>
10.15	<p>At KWIC we will visit different departments and examples of KWIC's sustainable approaches and after a biological lunch we will have a introduction of the C2C principles in education.</p> <p>Then we will travel by bus to Waalwijk, a city near 's-Hertogenbosch, where we will visit Desso Company, one of the pioneers of the C2C approach in the Netherlands. We will arrive there around 14.00 o'clock</p>
14.00	<p>At Desso we will have an introduction on the C2C principles in industry and we will make a tour and a quick scan through the factory.</p> <p>After finishing this visit, we will go to Heusden, one of the most beautiful places in the Netherlands.</p>
17.00	<p>There we will have a dinner and in the evening we will return in due time to Vught to Zin. There we can continue in the 'living room' with (more) drinks and talks.</p>

Programme day 2

Friday 20 January 2012

GOING INTO THE C2C CONCEPT

9.00	<p>We start again at 0.9.00 o'clock at Zin.</p> <p>1 The framework of the project: the heart of the matter</p> <p>The outlines of the project will be presented. A step by step approach will clarify the essence and meaning of the project, the roles of the different partners and their contributions.</p> <p>The Leonardo C2C project is a transfer of innovation project. The innovation is the Cradle to Cradle (C2C) approach designed by Michael Braungart. EPEA International in Hamburg and EPEA Akademie in München have developed training programmes for business and education and a simulation game. Desso is leading in expertise on C2C in the domain of industry in The Netherlands.</p> <p>So, first we have to be as clear as possible about what the C2C concept is about, because when we want to transfer the concept/the innovation to the partners for their own institutes we have to know what it is all about. That's why we start the day with a profound clarification of the concept.</p> <p>2 The train the trainer programme: composition</p> <p>Crucial in the project is the training part.</p> <p>The Core Unit's training concept (developed with your help in the kick-off meeting) will be piloted with help of the EllenMacArthur foundation in the UK. After being helped and coached in the UK, the Core Unit members will train the partners in a general training in The Netherlands. After being trained in the Netherlands, the partners will train together with 2 members of the Core Unit their colleagues in their own organisation in the C2C principles and practices. The colleagues within the partner institutes transfer after the training the results to their students in education and to the workplace in companies, factories and businesses. During the training process the quality of the training and the implementation will be monitored.</p> <p>At the kick-off meeting we will present an outline of a training programme for industry/ companies and education on the C2C approach. This outline will be discussed by the partners based on their experience and expectations.</p>
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17.00 17.30 18.00	<p>In an active workshop session we compose together the topics for an ideal training programme which will be piloted in the UK.</p> <p>We will work in two groups(education and business) each with an expert facilitator. Results will be presented and information on the training programs will be exchanged.</p> <p>In the Finals we will reach to conclusions and further work do be done in the work packages.</p> <p>3 The infrastructure of the project: Project management</p> <p>In this session information about the project management will be exchanged. So, it is about the contracts, the deliverables, the finances etc.</p> <p>Finals, evaluation and appointments</p> <p>Happy hour Voluntary Musical meditation Diner at Zin and/or elsewhere</p>
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Programme day 3

Saturday 21 January 2012

DEPARTURE

	Departure for those who have to leave
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2. The project handbook

The project handbook consist of the following chapters

1. The approved application
2. The contract between KPC Groep and the Dutch National Leonardo Agency
3. Contract between KPC Groep and partners
4. Bank ID
5. The team organisation of the partners
6. Real daily rate including pay slip of the participants

3. Activities

Travel and Residence		working hours
Travel and residence template		hours registration form
Proofs(boarding passes)		report on quality and quantity
75% reimbursement		agreed deliverables(75%)
Interim report	+	quality report
End report	+	quality report

4. Work Packages(WP1)

- WP 1** Kick off core unit in November 2011
Kick off participants January 2012
- WP 2** Development of:
the training manual
the course
the website
- Concept development between January and April 2012 .Responsible Rudolph Bolsius with assistance and input of the core unit members.
- In April the training manual and the course will be tested and evaluated together with the EMAF in England.
- WP 3** General training for the partners in the Netherlands
End of May/beginning of June
- WP 4 till WP 7 :** training by the members of the core unit in close cooperation(co trainers) with the partners in the different countries with the different organisations/ companies.
- Appointments to be made about the exact dates of these trainings
- WP 8** End evaluation June 2013 in the Netherlands
- WP 9** Dissemination and exploitation of the whole project.

5. Deliverables

The participants have the obligation to deliver what is written in the contract.

- 1. All have to contribute to the project handbook.**
- 2. All participants have to organize their public relations and free publicity in their own organisation in order to attract as much participants within their own organisation as possible for the training.They have to set up networks on C2C.**
- 3. All participant sneed to contribute to the website,which will be installed in the next months.Part of the website is a digital community.
Documents, articles, contacts, introductions to,written documents of activities in the area of C2C will be published on the website.Also as a kind of proof of activities carried out.**
- 4. All the activities in the project are focussed on C2C dissimination and exploitation.**
- 5. Trainer manual is the end result of consultations and of the experience in the pilots.**

6 Training Cradle to cradle

First concept based on the input of the participants of the project start up in Vught.

So many additions and changes are needed !!!!

It is a collection of possible items for the training.

General Principles

Training consist of modules.

Depending on the audience a choiche can be made out of 8 modules.

Two basic modules and a choice out of 6 depending on the target group

The Chinese translate sustainable development into circular world

What is needed to make it more tangible?

Use old students: principle of circular education

No teaching but active learning

Use images:far more effective compared to words/verbal input

Exploit good examples.

Each specific profession translates the cradle to cradle principles into specific areas.

In general the training should have a triple approach

This approach is elaborated in the first two modules.

1 The WHAT question(clarifying the concept of C2C)

2 The WHY question(clarifying the benefits)

3 The HOW question(methods of implementation)

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Module 1

.....some history

An improbable joint venture between an American architect and a German chemist led to the publication of a book in 2002, which gave a new impulse to the way we think about sustainable development. In “Cradle to Cradle: Remaking the Way We Make Things” Michael Braungart and William McDonough present a concept which lifts our ideas about sustainability to a higher level.

The traditional way of thinking about sustainability was established in the seventies when people started to realize that our current production and consumption system is damaging the environment. In the nineties, designing methods such as eco-design and measuring techniques such as LCA were developed with the aim of minimizing the environmental damage caused by human activity.

However, according to Braungart and McDonough, we should not just be looking for ways to make things “less bad”. Carrying on with the traditional ‘Cradle to Grave’ production model will still lead to huge quantities of waste and pollution being produced. McDonough and Braungart propose “starting out by doing the right things”. This new perspective is rapidly gaining ground among the current leaders in sustainability.

Cradle to Cradle

On the basis of the **Cradle to Cradle innovation framework** companies started making products with surplus value; products that have a positive effect on people, the environment and society. This innovation framework is helping us to find sustainable product solutions using the **3 ‘guiding principles’ of C2C**:

1. **Waste = food**: this principle envisages an infinite cycle in which products are designed and produced in such a way that they ultimately produce new products, or can be reintroduced to the biological or technological cycle;

2. **Use renewable and inexhaustible energy sources**, such as the sun;

3. **Celebrate diversity**; greater diversity leads to a more resilient ecosystem;

The realization of C2C concepts requires a considerable amount of creativity, financial resources, and cooperation between the right partners. The 3 ‘guiding principles’ provide shared goals for this purpose. Maintaining the C2C philosophy and implementing it in an

*organizational process is an on-going, step-by-step development. To obtain a clear structure and direction, a **roadmap** is often used to help us plot a path towards a future-oriented objective. MBDC is the owner of the Cradle to Cradle trademark; EPEA has the right to use this trademark and assists companies in the certification process. The C2C Product Innovation Institute is licensed to certify products in accordance with the third version of the Cradle to Cradle certification chart, which is currently in progress.*

Source Cradle to Cradle pays off(May 2012)

Introduction on Cradle to Cradle (The conceptual part)

New vocabulary is important because it evokes in an unconscious way new thinking.....

....The principles
The Basic Principles

- . Waste equals food
- Use current solar income
- Celebrate diversity

In general it is about circular economy not focussed on personal behavior.

Forget guilt it is system thinking: a non linear enlightenment.

1. Improve quality of life and environment
2. Re-utilize all materials used in the product.
Design criteria: easy disassembly
3. Use post consumer materials as raw material in the product.
4. All raw materials should be 100% safe for humans and environment.
5. Use renewable energy in all stages of the cycle

Waste equals food
Learn lessons from nature

.....Mindset and rethinking
.....System thinking
....19th century mechanical approach and science will sort out
... Postmodern thinking in the C2C framework
... different framework in thinking
... .living systems, non linear,long term not one cycle

.....Ways of assessment of the process and the results
Not for certification!!!!

Module 2

Activating Cradle to cradle thinking (THE HOW and WHY part)

- implementing C2C in education and in companies
- simulation game
- create environment and encourage divergent thinking
- reframe questions into powerful questions

Games are interesting: challenge participants.

-from awareness to change management:
-quality management
- ... waste management in the curricula of some master programmes
- ... waste management in vocational schools for students studying ecology and natural resources.
- Local curricula about recycling

Special in companies it is important to make it personal on the level of top management.

It is an innovation a journey with no defined objective

After the awareness/training it is important to organize a follow up

In the planning there should be clear landmarks and description of the roles of the participants to the C2C journey

Also important to define what C2C is NOT

For activating the awareness and the chances for implementation it is important to have a focus on legislation and the competitive advantage /marketing terms.

It is wise to develop an e-learning tool

And to differentiate in different topics for different people (tailor made programs)

Internal communication is essential and an implementation procedure based on change management visions and procedures is crucial.

One of the basics for success is the integration of C2C thinking into the daily life job.

A condition for successful integration.

Companies deploy Cradle to Cradle in different ways.

C2C can be a 'next step' in the sustainability or CSR policy due to a decision to develop C2C products or services.

We see this happening in companies that have engaged in sustainability issues in their organization in the past, such as Van Houtum, Ahrend, EuroCeramic and Mosa.

C2C is given a position 'on top of' the mission of sustainability. However, Cradle to Cradle can also be a starting point

for a rapid and complete change of direction in the organizational strategy.

As in the case of DESSO, which decided to become a C2C company after a company takeover in 2007.

For ECOstyle on the other hand, its the particular usage of materials is so much associated with the company that it could well be detrimental to use the term C2C.

For that reason it was decided to apply the C2C philosophy primarily to the new accommodation in the ECOmunitypark, and not to the marketing of ECOstyle's products.

*There is a clear **difference** between the companies in the use of **C2C** in their **positioning**. Some are primarily interested in certifying C2C products; others want the brand and/or the business itself to source Cradle to cradle pays off(May 2012)*

The strategy for implementing C2C has to be related to the mission and vision of a company/ organisation/institute.

So C2C is not a separate issue but an integrated part of the long term strategy.

It is also a reaction to external pressure(standards/legislation)

Crucial for the introduction of C2C is a transparent view on the actual situation: mapping of the current situation in products/services is a necessity. A precondition for a planned change into the C2C thinking.

The members of the Learning Community perceive Cradle to Cradle and sustainability as a **challenge for the entire organization**.

The management or Board of Directors can and should indicate the strategic direction, but it is crucial that C2C thinking and acting is anchored in the organization.

After all, the success of C2C requires the enthusiasm and cooperation of all departments – product development, production, sales, purchasing, marketing etc.

The Cradle to Cradle vision should be translated into concrete objectives and challenges for each department.

The greatest success is achieved when C2C is integrated into the core business and becomes part of the DNA of the organization.

To translate the Cradle to Cradle ambitions of the organization into practice it is essential that middle management and employees have a clear idea of what C2C means in relation to their daily tasks and responsibilities.

It can imply substantial changes for employees in terms of their activities, in a way that appeals to their **personal values**. The **anchoring** of C2C in the organization implies a **cultural adjustment**.

Internal support
Making C2C tangible

Internal competition also seems to work well, because people want to do well in terms of the benchmarks that are set. Indicators are needed to measure performance and maintain the right balance between simplicity, effectiveness and correctness in terms of content. Philips has a Sustainability Board in which business units are rated in terms of whether they are on schedule, how they perform in comparison to one another, and how well they are keeping to the road maps drawn up.

- C2C as a new business model.

Module 3

Teamwork through the value chain (Implementation related to specific topics)

-Cooperation
-long term partnership
-finance
-social fairness and corporate ethics

EU legislation in Universities
Waste codes in environmental faculties
Consumer ethics
Sustainability is taught in environmental protection
Also in agri tourism and the production of Agricultural products

C2C offers various **marketing advantages** to companies:

1. Certification and C2C story support sales

For some companies C2C certification is a necessary precondition for marketing and communication.

They have to be able to demonstrate that it really is a C2C product, and that EPEA has shown this to be the case. Many companies share this sales-related advantage. But they also indicate that customers are persuaded by 'the story' they tell of how they put the C2C philosophy and the associated innovations into practice; the certificate is important as evidence, but less important than 'the story' of C2C and innovation.

2. Free publicity

A C2C product automatically generates free publicity. This makes it an important component of the marketing strategy of companies. Their representatives appear as speakers at conferences and seminars about sustainability to tell their 'story' to a specific target group of managers and directors (the target audience). Directly approaching municipal authorities is also very productive: the EPEA certificate gets you off to an excellent start. Free publicity was found to be a cheap and highly effective way of reaching

3. Internal communication between producer and end-user

There is a clear difference between 'normal' products and C2C products. In the case of the former, the bond between brand and

user is often short-lived, in spite of all the time, money and effort spent on marketing attempts to build up a long-lasting relationship with the consumer. With C2C products however the relationship is entirely different; as long as the user keeps the product, the bond between the producer and the customer will persist. The producer does not lose interest as soon as the consumer buys the product. On the contrary: he remains interested until the product is back in his own hands. It is beneficial to the producer to know where the product is and where it was purchased. For product developers and marketers this releases a huge amount of new information, such as usage (wear and tear for example), moment of return (reason) and the needs of the user (possible improvements). The development and acquisition of C2C products leads to increased interaction between the producer and the consumer. will establish itself alongside other like-minded small and medium-sized businesses and knowledge institutes who feel at home there.

(source Cradle to Cradle pays off May 2012)

Module 4

Process Operator(implementation in industrial environment)

Businesses are confronted by the **growing demand** for **sustainable products and services**. In the B2B market in particular, there has been a rapid rise in sustainability requirements in calls for tenders. In 2005, the Dutch government decided to make Sustainable Public Procurement compulsory. Every year, the government spends more than 50 billion Euros on purchasing and contracting-out; this means they can give factories a strong impulse to develop C2C products and services. This way the government can take on the role of 'launching customer', thus encouraging the market to create a more sustainable supply. This may involve innovative C2C products which are currently too expensive, or for which the market is still too narrow. As an extremely large buyer, the government can create new markets and (at the municipal or provincial level) encourage the closure of cycles. In the Learning Community green public procurement was discussed repeatedly. The main issues addressed were how C2C can be built into the approval criteria of tenders, and how the government can actually create space for C2C products and services through tenders.

The **C2C certification** has **six points of focus** by which products are assessed:

1. Used materials
2. Closed loops
3. Diversity
4. Energy policy
5. Water, air and soil policy
6. Social Responsibility

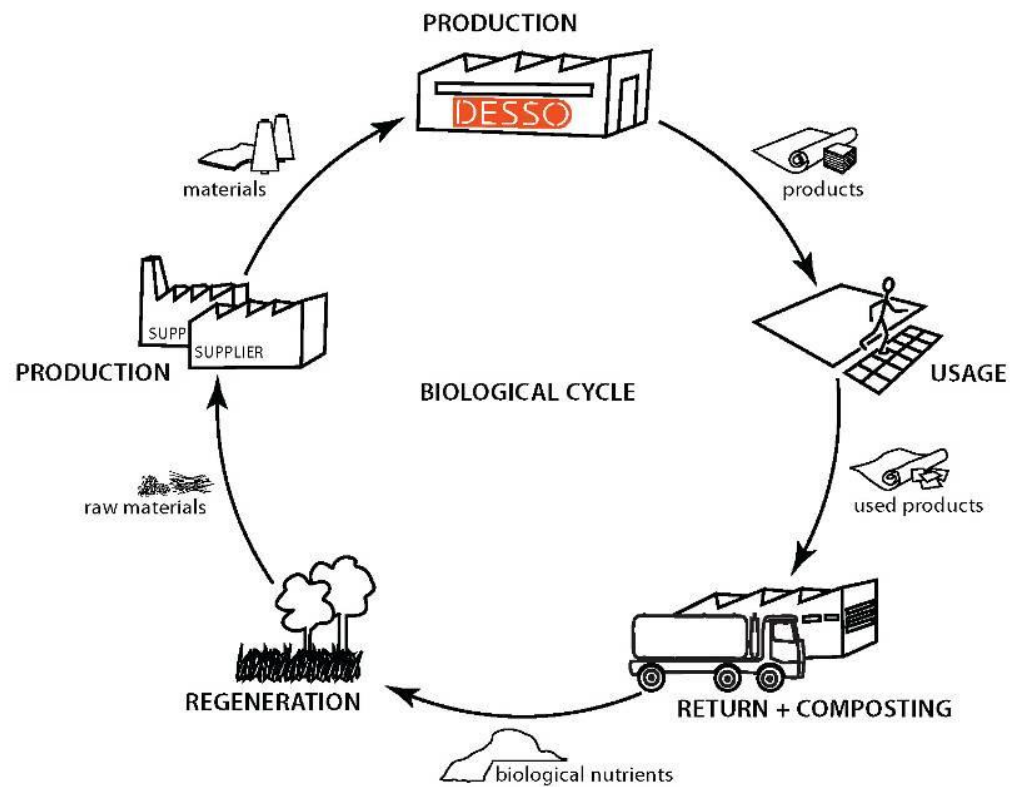
Creativity

DESSO transformed itself into a superior floor design company through better external focus via the "Circles of Architects®" programme.

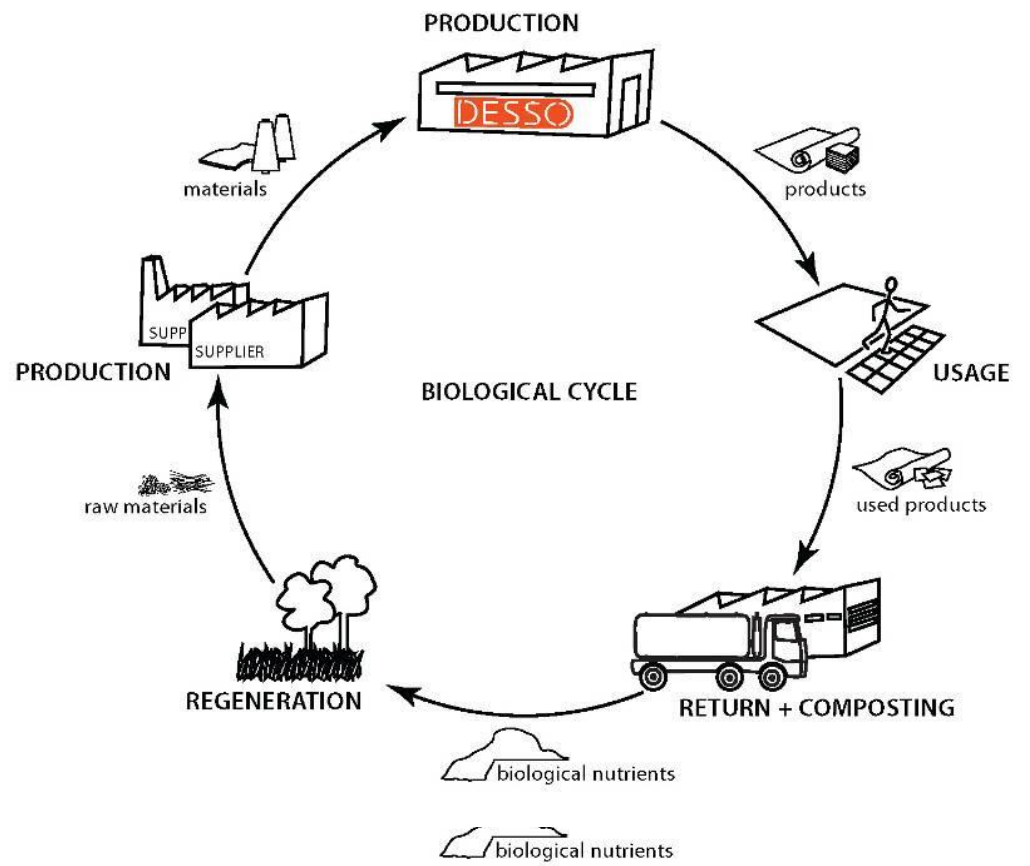
2. Functionality

DESSO invented carpet tiles that significantly improve health by superior:
Indoor air quality

From



- Less fine dust (8 times lower levels than hard floors with DESSO AirMaster®)
- No off-gassing
- Sound absorption in offices, healthcare and schools



Module 5

Workshop for designers (implementation for designers: what/why and how)

All textile waste is recycled in other industrial processes.

CO2 emissions have been reduced by 41% since 2008, at our production facilities in Waalwijk and Dendermonde.

□DESSO uses 100% renewable electricity (hydropower) in our production locations in Waalwijk and Dendermonde.

□At DESSO's main production facility in Dendermonde daily 1043 m3 of water is processed by the water treatment plant after thaty Ozonised waste water is reused in production, saving 12% groundwater.

All about eco:a challenge for designers

.....redesigning is a challenge

....design to improve quality of life

- Do we have sufficient materials to built?
- Can we preserve nature in the built environment?
- How can we have a beneficial impact with cities
- Buildings like a tree cities like forests

....remaking the things we make

To built and make without energy

Molre and more need/demand for sustainable products

Sustainability with Substance

Really make a difference

Products are healthy and kind for humans and environment in **all** stages of the life cycle

Inspiring concept and philosophy

A step further than sustainability

Material management

More stringent environmental and social rules

Do better than just less bad

Successful implementation and application of C2C has profound effects on the organization. C2C is more than a sustainable product design – it is a philosophy, which can and must be embraced and applied by the entire organization.

*The implementation of **C2C** therefore **demands** innovation and, in the longer term, **integral organizational change**.*

The C2C debate often focuses on the technical aspects of innovation. But more is needed. The organization itself, and all of its employees, will have to operate differently.

*Organizations must learn to develop **contextual awareness**, in other words they must become aware of developments in society and be able to translate them to the business and (new) opportunities for products and services.*

*The organization– particularly the management – must also have sufficient **self-knowledge**. How do I manage and direct people? What are my strengths? How do I adapt to new situations? C2C requires after all new knowledge and a different style of leadership in which openness and co-creation will play an important role.*

Source: Cradle to Cradle pays off(Mau 2012)

Module 6

Middle management/quality management (implementation criteria in companies/organisations)

Define and position C2C in this field
Need for commitment from TOP to BOTTOM
Need for clear vision, plans and Consistency
Internal & External communication
It is about cooperation
Sustainability in combination with Design
.....circular economy
.....marketing
.....organization
.....CSR(ISO 26000)
..... Equavet

ISO and CSR are taught in modules in VET schools.
Management of quality

What are the actual benefits of a Learning Community? What is the added value of bringing pioneers in the field of C2C together in one place?

*In the Learning Community ‘**learning from one another**’ is key. Learning about how other companies implement C2C, how they have reached that point, and about the solutions they found to tackle the various challenges faced. Leading companies use one another as sparring partners, and through the Learning Community sessions they learn to speak a ‘common language’.*
One success factor of the Learning Community is that the participants are not competing with one another. It was a basic principle of the selection process that no more than one company per sector would be allowed to take part. This meant an atmosphere of trust and confidence could quickly be established among the participants.

*Benefits of the Learning Community
Community of Practice as a ‘social instrument’*

*“**Learning from diversity**” is a key concept of the Learning Community. The backgrounds and ambitions of the participants are different. They have different visions and opinions about whether C2C is the best or only way to achieve sustainability, whether C2C goes beyond sustainability, or whether C2C is just one specific form of sustainability. There is also a huge variation in the size of the companies involved (from 15 to 50,000 employees); the stage in which implementation of C2C is in; and the extent to which C2C/ sustainability has been incorporated in their business processes. They also differed in the scope of their ambitions; is the primary focus on certifying products, or is it an enterprise-wide strategy? Is certification being sought for existing, modified products, or are the C2C products a brand new addition to the assortment?*

Source: Cradle to Cradle pays off(May 2012)

Module 7

Implementing C2C (implementation in general)

- What is needed to understand C2C and make it tangible?
- ...how to implement C2C?
-business cases
-excursions
-guidance for making an action plan
- ... personal responsibility
-refer to personal experience
-ask for solutions in their personal life
-draw lessons from nature
-use methaphores and images

Module 8

Reflecting on the implementation of C2C

- ... discussion on the implementation process
-SWOT Analysis
-Consultation and further actions
- ,....not teaching but coaching:active learning
-circular teaching
-role playing
- ... internships
-research
-a creative thinking model is needed for reflection and implementation

In general: assessment of the course/seminar /students learning

Sources used and to be used in the final training programme

- 1 Book Inspired by Cradle to Cradle
C2C practice in education (May 2011)
- 2 Cradle to Cradle pays off(Mau 2012)
- 3 Power points from EPEA Akademie Sonja Eser
- 4 Power points from Rudi Daelmans Desso
- 5 Power points from Rob de Vrind KW1College
- 6 Website www.duurzaambo.nl
www.kw1c.nl/communityweek
- 7 De argumentenfabriek Mind Map (in English)