

## Working and Learning in the World of Cradle to Cradle®

Leonardo da Vinci Transfer of Innovation project

### End Report Development of Simulation Game “Simplycycle” by Dr. Sonja Eser, SinnenWandel

#### Goal:

Dr. Sonja Eser provided a pre-version of the simulation game Simplycycle developed for seminars with management and experts for the further development in this project. The goal was to develop a simulation game for VAT education, usable for teachers without in depth knowledge of the Cradle to Cradle concept for this project. To make it useable for schools, adaption of the game structure and rules, of the knowledge level and redesign of game material was needed. Furthermore a detailed moderation handbook was needed to help teachers run the game and answer questions.

The main features of the pre-version should be preserved (help players think out of the box, improve cooperative skills, learn to ask the right questions, raise awareness and improve thinking in an eco-effective mindset).

#### Activities/Development:

The pre-version of the simulation game was presented at the Kick Off- Meeting in Den Bosch in January 2012. This followed a meeting in Den Bosch in 13-14<sup>th</sup> of March 2012 with intensive testing by Core Group Members and brainstorming. A list of suggestions for improvement and adaptation for schools was the result.

With these suggestions, Sonja Eser prepared a modified game board, cards and game rules for testing at the Core Group Meeting in London, 11-12<sup>th</sup> of April 2012. With these results, the simulation was further developed in the now existing form and presented at the General Training in Den Bosch in September 2013. Comments and suggestions for improvement were again used to refine the design of the game.

#### Testing:

Each partner of the project received two copies of the game in December 2012 for testing in their own organisations. Feedback was collected during the trainings and dissemination events and at the end meeting in Den Bosch.

#### Result:

The end version (First Edition 2012) did meet the goal to be used in different European countries in VAT education. It was also successfully used in events with management and experts.

The re-design of the game material improved the easy handling and helped to illustrate the change from linear to circular production. This didactic graphics will help to remember the quintessence of Cradle to Cradle design concept.

A detailed moderation handbook as well as a power point for debriefing was developed, which could be easily used by the teachers.

The biggest challenge was that there is no final Cradle to Cradle solution for certain products and processes, but that we are still in the beginning of the innovation processes in many companies and researched. So instead of giving ready-to-use solutions, the simulation did achieve to inspire the players to raise as many creative ideas as possible.

The three levels of difficulty were revised. The first level now clarifies the change from linear to circular production. In the second level players learn the different factors that support continuous flow of materials. The third level links circular economy with other cycles and shows the bigger picture. Here as well as in the cycle cards the interdependence with nature is stressed.

Feedback of partners were:

- The design of the game material is fine and useful. A smaller version for playing on cafe tables, e.g. in Greece, was a request.
- The island outline should be more striking.
- The facilitation of the simulation was easy with little preparation of the teachers needed.
- The players did enjoy playing the simulation game.
- Players developed awareness of urging environmental issues and did raise awareness about harmful substances in products we use in everyday live.
- Players were inspired to think of solutions and possibilities. This was the main result in playing the simulation each partner experienced.
- Players did like to finish the game and wanted to have an extra meeting as time ran out.
- As the simulation provides solutions in form of expert cards, teachers feel secure enough to run the simulation even with little knowledge in material chemistry and toxicology.
- The informations on the cards is demanding for younger players.
- It is challenging for teachers and students that the simulation game intentionally has no competitive character to improve cooperative skills.

#### **Game Developer:**

Dr. Sonja Eser is biologist and trained trainer, also for Cradle to Cradle. She has experience as game developer and gave lectures about game development at the university of applied science in Freising, Germany in the area of sustainable economy. She developed different learning and exhibition material, e.g. for the National Park Bayerischer Wald, Germany; Science in Dialog in Bavaria.

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