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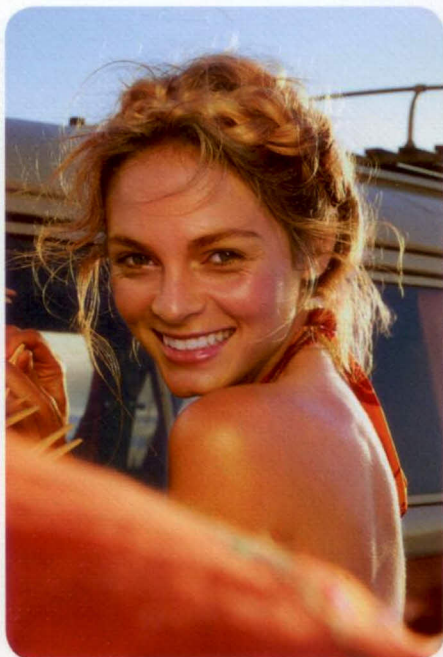
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How much Earth does the consumer need? – Sustainability in Cosmetics

P. Huber

The subject sustainability stamps the media environment as well as the political dialog. This influences the consumer of cosmetics and also the cosmetic industry itself. The initial demand to »not live from the capital but from the interest« for ensuring sufficient resources also for future generations as main idea is not wrong. It remains questionable, how and to which extend the goals of sustainability should be reached und what it means for the cosmetic industry and finally for the consumer. Not least should the focus be directed to the effective hot spots, which steps are effective and could be implemented efficiently to differentiate against the blame of »green washing«? The following examples show that sustainable economic management is not an invention of this century. Since generations entrepreneurs of the Alpine region experience a considerable amount of effort to persist economically, but also to be responsive to social trends and expectations. Two think tank projects with students addressed the subject sustainability and cosmetics in depth. In this article insights and results of both case studies will be discussed according to an interpretation of the classical triple bottom line.

The Origin of Sustainability

What the word sustainability means can be traced historically. The appreciation of sustainability admits many interpretations. The triple bottom line (TBL or 3BL) divides sustainability into economics, social responsibility and ecology. The pillars are considered as equally ranking. This easily leads to polit-

ical calculations. For example acts a country sustainable when its natural resources like rain forests can be decomposed, as long as this loss will be equalized with a high income [1].

The actual discussion focus is concerned above all with the question of non-lasting resources. Through an increased demand of raw material intensive goods and services livelihoods like soils, forests, and water will be over-utilized. Key figures like the CO₂-Emission or the »carbon footprint« that for mankind is at 1.5 »Earths«. It therefore lies 50% above an environmental measure and shows the consumer what kind of effect his personal life style has. Worldwide the goal is to reduce the resources consumption to the capacity of one earth (like it was the case before 1980) until 2050. Not an easy task, taking into account that the global population almost doubled since 1980. This can only imply a decoupling of economic growth and environmental burden. Enhance efficiency by new technologies and create stimuli that consumers don't use such products or production processes. [2]

After the description of the term in forestry (already in the 18th century), the term »sustainable« has been used 1972 in the report of the Club of Rome (»Borders of growth«) in correlation with the self-preservation of mankind. In the Brundtland-Report 1987 sustainable development by environmentalists has been defined as »development that covers the needs of the present generation, without jeopardizing the ability of future

generations to cover their needs«.1992 at the earth summit of Rio de Janeiro sustainability has been launched as the central subject for the new ecological movement. At UN-conferences in 2002 and in June 2012 the community of states discussed how this ecological movement can be put into practice. In Switzerland the demand for a sustainable development has been incorporated into the statutes of the new federal constitution in 1999. Respectively the federation and cantons are obliged to sustainable acting. [3]

Sustainable economic management is therefore not a new development of this century. Already in the middle ages mountain communities recognized that the forests in the valleys had to provide protection as protective forests against avalanche falls and that a sustainable use of these common forests was imperative. A German scientist wrote in 1713 what sustainability was for forestry: to only withdraw the forest so much wood as it can be reforested within one growing period. [3]

The Desire for an Ideal World – The Alpine Region

Sustainable and social compatibility is not a new subject in the alpine economic area according to centuries-long experience. The reason is the sparse conditions and resources, all the more, the higher humans were forced to live. Without »socialism« and ecological responsibility these mountain communities could not survive for long. [4] When the global economical engine starts stammering, chances for regional politics and their products appear. Behind the demands for »green hedonism«, stakeholders like »Slow Food« in the food area and an increased demand for natural cosmetics, motifs like safety and health are standing.

The farm life in border regions seems to fulfill these motifs and desires. [5]

Think Tank-Projects in the Valais and Grisons (Switzerland)

Important industry sectors of the Swiss Alpine region today are mainly agriculture and services in the tourism area. External suggestions in different sectors associated with activities in networks are vital in such cases. Already in 2009 a case study in the didactic area of cosmetics at the ZHAW was occupied with the subject regionality & sustainability and complemented a part of the regional development project in the mountain canton Valais. In the wine village Varen business women (production of grape seed oil of the accruing rape material) tried beside others, together with further inhabitants of the village, to implement innovative and even sustainable cosmetic ideas in their manufacture. [6] The students of the Think Tank semester projects supported the work of the dynamic women in the region of Varen at the evaluation and realization of their project ideas in the area of cosmetics (Set-up of an exhibition manufacture). The theoretically learned requirements of cosmetics had to be transferred into a conformable to law product dossier by the students. [7] Thereby they concentrated themselves on the use of raw materials from the region resp. typical regional agricultural products like apricots (kernel fragments, kernel oil), grape seeds (flour and oil), essential oil of Alpine herbs, glacier sand and more (Fig. 1).

In the Italian speaking south valley of the so called Val bregaglia (Grison, Switzerland) similar economical relations like for the Valais apply. 23 students of the elective subject cosmetics exposed themselves with the question: »How must a sustainable cosmetic product look like? Which criteria should be ful-



Fig. 1 Products development of students 2009 Think Tank »Valais« (seasonal hand cream with a winter and summer care

filled according to today's definition? Which interpretation possibilities are there?« After preparation of the interrogation theoretical product ideas were presented mid December 2011, while during the following spring semester first trials for the development of prototype formulations were implemented.

As stimulus the company model of »Soglio – well looked after with the power of the mountains« based in the mountain canton Grisons, Switzerland has been studied. Already 1979 the founders in the Val bregaglia managed to create products that are »in its kind excellent and unique and therewith unfolded economical activities according to the peculiarity of the valley«. Interestingly the students at the same time named the »Hot-Spots«, that for them defined the most important expectations to sustainable cosmetics from the viewpoint of young consumers, but also extrapolated creative product ideas of the classical triple bottom line as future specialists. Which basic approaches along the product life cycle can be tracked, can be seen in Fig 2. These reflect the basic approaches of the triple bottom line. The developed prototype formulations based on the use of honey from a rare species of black bees (Fig.

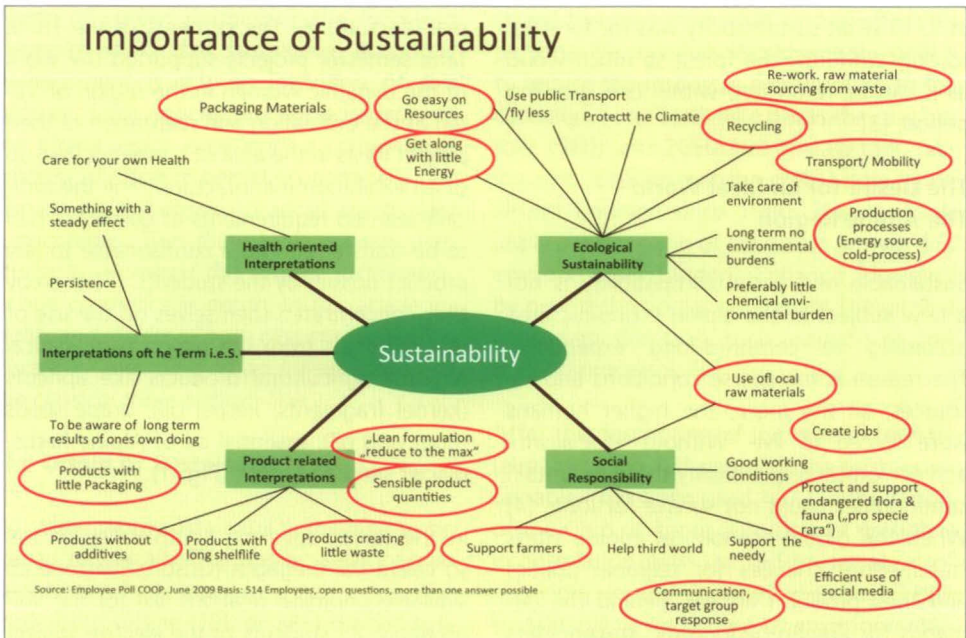


Fig. 2 Brainstorming of the students about the question: „How should a sustainably defined cosmetic product look like in the eyes of the consumers? Amendments to an employees' poll [Source: Mann Th., One word with several meanings –Employees Poll Coop, Employees magazine, August 2009]



Fig. 3 left: Product development lip peeling and lip balm with the honey of the black bee („pro specie rara“) (Source, Derungs J., Peña S., Städeli C. (2012), Lip peeling and lip balm, semester project ZHAW, unpublished)

right: Product development, arolla pine oil bath mit arolla pine extract and typical arolla pine scent for relaxation (Source, Beeler I., Bick R., Bregenzer M. (2012), Development of a bath oil mit arolla pine scent, semester project ZHAW, unpublished)

3, left), of pine wood extracts and the typical pine wood scent (Fig. 3, right), of goat butter from regional production for bathing sweetmeats and they also took into account the use of preferably few ingredients, lean formulations like the Cold Cream or the possibility to produce individual quantities of an active ingredient mixture for a face care upon request (Fig. 4).

Sustainability at which price?

The made experiences of the students at the ideas collection as well as the product development showed that in this respect all efforts by the industry can only demonstrate a sustainable effect when the consumer behavior is also changing. Changes start in microcosm, however lose their penetrating power if neither a regional nor a global political coordination takes place. Here the key question arises how much government-

tal regulation a free economic tolerates. It is questionable whether each country of the worlds community is ready to contribute to a global sustainable politic and whether the impact to the economic growth is reasonable. Exemplary functions are asked, they must however be payable by the community. Profit is, how it was representatively defined by the anthroposophically oriented cosmetic



Fig. 4 product development during the students think tank-project »Soglio« 2012

and pharmaceutical company Weleda AG, admittedly »not the goal, but a prerequisite for sustainable economic management«. [8]

The world economics are further in competitive relationships. The three pillars environment, economics and social responsibility must be regarded integrally and not next to each other. The technical challenge is whether it succeeds long term to dematerialize economical growth that means to decouple growth from resources use. [9]

The cosmetic industry offers with the small strongly growing segment of natural cosmetics a »sustainable alternative« for the need of the LOHAS (»Lifestyle of Health and Sustainability«) target group the industry does not only optimize along the value added chain at the production and extraction of natural raw materials (cell cultures versus ecological cultivation) that show a powerful

effect even at low dosages (e.g. preservatives, UV-Filter systems). Also in product development it takes the responsibility and decreases the energy requirements respectively the »Carbon Footprint« by more efficient production technologies and improves the product performance by the targeted use of synergistically working raw materials of at the same time lower use concentrations. The cosmetic industry starts to implement the process using raw materials more effectively. Now also the consumers are challenged to set a signal by a changed consumer behavior that the natural capital can be influenced and kept sustainable.

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