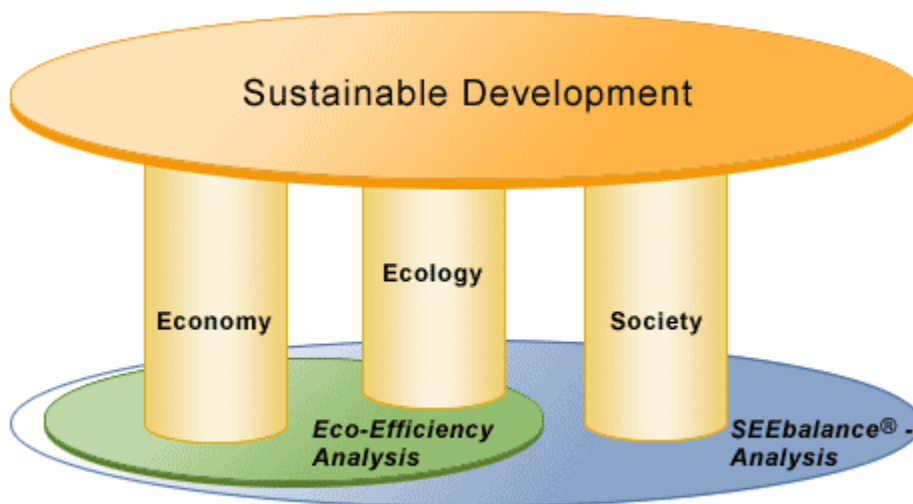


What is the SEEBALANCE®?

Development of the SEEBALANCE®

SEEBALANCE® refers to the SocioEcoEfficiency Analysis developed by BASF. The analysis considers the three dimensions of sustainability: economy, environment and society. The SEEBALANCE® is an innovative tool which allows, for the first time, the assessment not only of environmental impact and costs but also of the societal impacts of products and processes. The aim is to quantify performance of all three pillars of sustainability with one integrated tool in order to direct - and measure - sustainable development in companies.

SEEBALANCE® could be used as socio-economic analysis for REACH authorization. For this purpose the method could be extended with further indicators, such as macro-economic values.

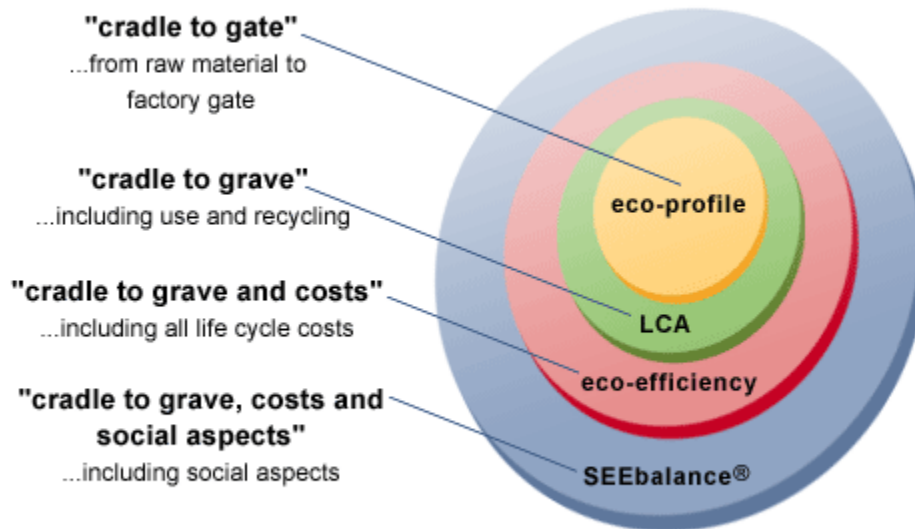


Cooperation between Industry and Academia

This innovative analysis has been the result of a cooperation (2002-2005) between BASF SE and various academic research institutions including the Institute for Geography and Geoecology of Karlsruhe University, Ökoinstitut e.V. and Jena University. The cooperation was part of the 'Sustainable Aromatics Chemistry' research project supported by the German Federal Ministry of Education and Research (BMBF).

Comprehensive Assessment of Sustainability

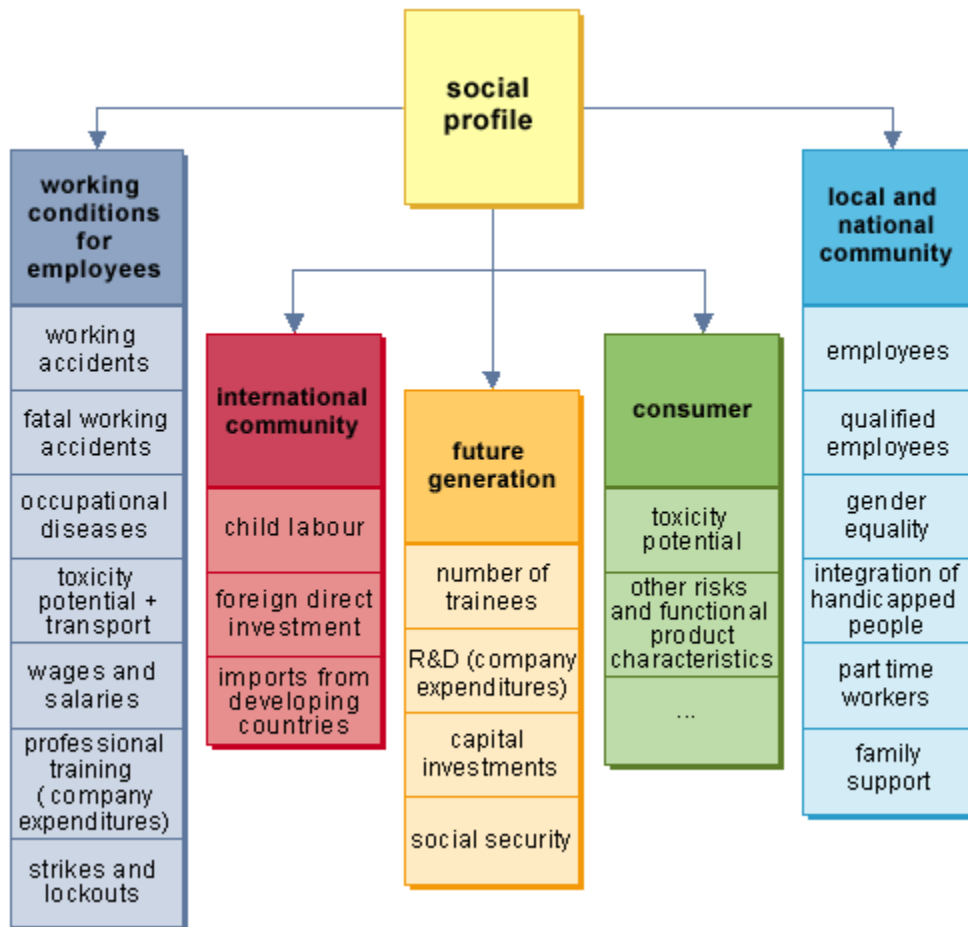
Incorporation of the third dimension of sustainability, the societal aspects, in addition to the environmental and economic ones, allows for a comprehensive assessment of sustainability.



Minimizing environmental impact and costs all while considering societal issues is possible with the SEEBALANCE®.

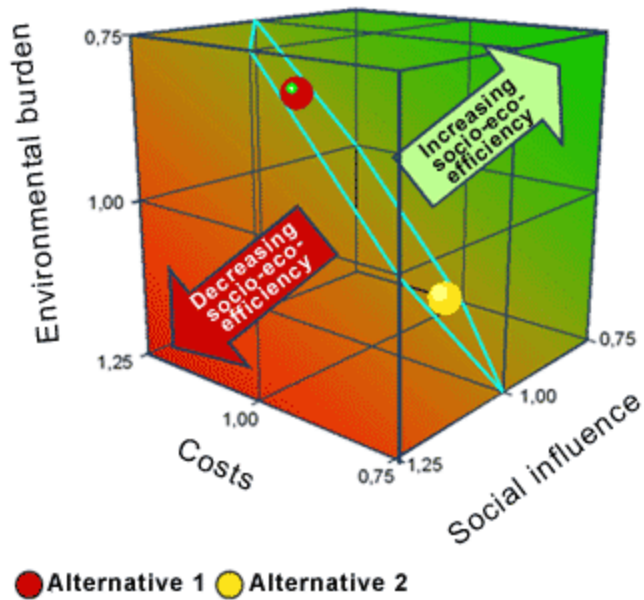
The societal impact are grouped into five stakeholder categories: employees, international community, future generations, consumers, and local & national community.

For each of these stakeholder categories measurable indicators are considered, for example Number of employees, occupational accidents occurring during production but also risks involved in the use of the product used by the end consumer. The societal indicators, analogous to the environmental ones, are summarized in the so-called social fingerprint.



Visualization of SEEBALANCE® Results

The results of the SEEBALANCE® are used to support decision-making in the areas of marketing, R&D, strategy and political issues. Summary of the results in the SEECube® allow for effective communication.



Structure and Interpretation of the SEECube®

In conventional eco-efficiency analyses the costs and environmental impact are shown on the two axes of the eco-efficiency portfolio. Inclusion of the additional (societal) axis results in the three-dimensional SEECube®. The positions of the individual alternatives being compared are shown by colored circles.

The bottom left (red) corner shows the region of low socio-eco-efficiency. The more socio-eco-efficient alternatives lie toward the upper right (green) corner of the cube. The plane delineated by the blue marks a plane of equal socio-eco-efficiency. The distance from this plane is a measure of the socio-eco-efficiency.

The aim of the visualization in the SEECube is to summarize the complex issues into a form easily understood by decision makers and stakeholders. Results can be used to find weaknesses, show market opportunities and strategic decision-making.

Source: BASF

<http://www.basf.com/group/corporate/en/content/sustainability/eco-efficiency-analysis/seebalance>