IMPLEMENTATION

Graz Model for Integrative Development

Author: Prof. Dr. Clemens Mader
E-Mail: clemens.mader@inkubator.leuphana.de
Institution: Leuphana Universität Lüneburg Graduate school - Innovationsinkubator, Scharnhorststr. 1, 21335 Lüneburg, Deutschland

---

The Graz Model for Integrative Development describes development processes on the basis of five principles: leadership & vision, social network, participation, education & learning, and research integration. The model aims to scientifically reflect and evaluate sustainability processes as well as to provide support in the planning and further development of these processes. Based on the Graz Model, development processes can be monitored from the vision to the implementation. The five principles of the Graz Model for Integrative Development can be determined in all development processes.

The model further divides each principle into three levels, which enables the analysis of the principles in applied processes. The user can draw conclusions for future developments. Users are from business (corporate processes), NGOs (social and environmental processes) or regional organizations (regional development processes).
Integrative development is manifested by blurring of the individual principles and its intensity increases towards 'the center' of the model (Mader et al., 2011).

The five principles of the Graz Model for Integrative Development, that are further divided into three levels, are described below:

1. **Leadership & Vision** describes the actions of executives. Responsible leadership can be seen as a prerequisite for a successful implementation of sustainability processes. 'Transformational leadership' further develops this process in cooperation with the stakeholders.
   1st level: Administration: Administration-oriented leaders complete tasks, that are initiated by other people. Their own vision is not implemented or developed.
   2nd level: Transactional Leadership: Transactional leaders pass leadership to associates. However, the strategic policy and vision are defined by the transactional leader.
   3rd level: Transformational Leadership: In transformational leadership, the management shares its vision and works on its vision in cooperation with the stakeholders. Responsibilities and

leadership are shared among involved stakeholders. This may by achieved by means of intellectual and creative ideas (education, research, art), development of innovation, respect and trust between the social network and persons concerned.

2. **Social Network:** involves the active people concerned. Two factors define the level of the network—the form of cooperation and the intensity of trust.

   1st level: Information Network: Information networks are the most basic type of social networks. They are based on the exchange of information. The actors of the information network do not share a common objective (e.g. library).

   2nd level: Knowledge Network: Knowledge networks not only exchange information but also seek development and collaboration (Kogut et al. 1993). They are based on mutual trust and collaboration, which implies the development of common ideas and active participation (e.g. Wikipedia).

   3rd level: Innovation Network: An innovation network is based on a shared vision and identification-based trust. Shared learning and development processes (Senge 1990) focus on solving problems and are based on participation and creative co-creation. Innovation is the primary goal of innovation networks and is a result of transformational leadership.

3. **Participation** describes how people as part of a social network become involved in the process. People of the social network can for example be informed, consulted, or take part in decision making processes.

   1st level: Information: Information, as the lowest level of participation, makes processes transparent. People are informed about the process but they do not have the possibility to give feedback.

   2nd level: Consultation: On this level, parties concerned have the possibility to give feedback and contribute their experience in an organized way (e.g. surveys, online forums, etc.) Decision makers can consider the opinion of these parties before continuing with the decision making process.

   3rd level: Decision Influencing: At the highest level of participation, the parties concerned can take an active part in the process and their opinion has to be taken into account. At this level of participation, innovation networks can be formed.

4. **Education and Learning:** This principle tries to find out how best to integrate education and professional training in sustainability processes. Additionally, the people involved spend some thought on how the whole process is reflected, what conclusions can be drawn and how the vision might have to be changed.

1st level: Single-Loop Learning: In single-loop learning processes, people rethink only their actions, which then have implications for the results but not for the initial aims. Therefore, the results of the learning process are limited to the initial aims.

2nd level: Double-Loop Learning: People not only rethink their action but also their aims. Routines are reviewed and new ways to achieve the aims are taken into consideration.

3rd level: Deutero Learning describes processes in which people 'learn how to learn'. Learners in such processes not only reflect on the aim but also rethink and improve the process itself. The organizational capacity of the learning processes is increased and innovations are created.

5. **Research integration** plays a fundamental role in innovation for sustainability processes. Interdisciplinarity takes different perspectives (disciplines) into account, transdisciplinarity actively integrates people concerned by the research process.

   1st level: Disciplinary Research: Processes are focused on only one subject area. Results of disciplinary research can provide a basis for interdisciplinary research.

   2nd level: Interdisciplinary Research focuses on the impact that different subject areas have on each other and studies the effects. To assess tasks of sustainable development, an interdisciplinary approach that reflects and relates social, ecologic and economic aspects to each other is necessary.

   3rd level: Transdisciplinary Research addresses issues that are relevant for society and works on these issues in cooperation with the actors and stakeholders concerned. A mutual learning process is generated by joint research and development of visions. Interdisciplinary scientific and social groups are involved in order to take the multitude of factors that can influence the addressed issues into account (Scholz & Tietje 2002).

The matrix below highlights the integrative connections of the five principles (Mader, 2009):

	Leadership (L)	**Social Network (SN)**	**Participation (P)**	**Education & Learning (EL)**	**Research integration (RI)**
L	x	Maintaining confidential relationships with stakeholders (Maak, 2007)	Creating shared vision & open communication (Sosik and Dionne, 1997)	Cognitive ability (Kirkpatrick and Locke, 1991)	Knowledge of the business (Kirkpatrick and Locke, 1991)
SN	Innovation	x	Participation is	Actors in	Work with

	networks require transformational leaders (Pratt, 2004; Sosik and Dionne, 1997; Wals, 2012)		needed for collaboration & co-creation in networks (Prahalad and Ramaswamy, 2004)	innovation networks learn from each other to build learning organizations	society on future aims (Prahalad and Ramaswamy, 2004).
P	Partnership allows participants to negotiate and engage in decisions with leaders (Arnstein, 1969);	Knowledge exchange; create a basis of shared values (Grunwald, 2002)	x	Social learning by participation in the course of regional development processes (Schugurensky and Myers, 2008)	Conflict prevention by working on mutual interests and solutions (Grunwald, 2002)
EL	Consultation and ownership, capacity building and training, advocacy and vision building as strategies for the UNDESD (UNESCO, 2009)	Social learning takes place in groups, communities, networks and social systems (Wildemeersch, 2007)	Regional learning is a process of interaction between regional actors and the regional environment (Scheff, 2001)	x	Deutero learning processes require reflection and can be supported by self-assessment, evaluation as well as research on future states
RI	Areas of responsibility have to be defined (Elzinga 2008) to build a	Specific skills of collaboration between research and social actors are	Transdisciplinary research is also interdisciplinary (Jantsch, 1972); Transdisciplinarity	To enable learning in transdisciplinary research, high levels of	x

	common vision	required	follows a participatory research approach (Pohl and Hirsch Hadorn, 2007)	information flow and shared goals are necessary (Hollaender et al., 2008)	

For detailed information on the individual levels of the Graz Model and its applications see sources and links.

Didactic Description of the method

The Graz Model for Integrative Development presents a method that can be applied when planning, evaluating or reflecting sustainability processes. Based on personal experiences following implementation in university courses can be recommended:

1. Theoretical input about the Graz Model: 30-45 minutes (see additional materials)
2. Division of students into groups: Ideal group sizes are between three to five students; individual works are possible as well, but students benefit more in group works as reflection and analysis more often occurs.
3. Allocation of groups to topics and/or organisations: Depending on available time resources two options are possible:
   a. *Work over one semester with the aim to learn the application of the Graz Model in practice as well as to understand and analyse development processes in organisations/networks/enterprises:* As lecturer you get in contact with organisations, institutes, NGOs or enterprises that deal with sustainability topics prior to the course. The student groups then support these organisations over one semester, get to know their projects and processes, analyse them on the basis of the Graz Model and develop recommendations for the further development of the organisation respectively concrete projects. The organisations benefit in so far as they need to reflect their internal processes and project developments – with the assistance of students, who can provide a creative and external perspective. The students prepare a report, including a description of the organisation and its projects, an analysis with the Graz Model and resulting recommendations for further developments.
   b. *Work over 4-5 hours with the aim to learn the application of the Graz Model:* As lecturer you search for case studies of different organisations/networks/enterprises prior to the course. Every student group deals with one case study and evaluates it with the Graz Model, whereby

the case studies present the only source of information. The results can be briefly presented afterwards. Additionally the students could also contribute own case studies, which they like to analyse with the Graz Model, e.g. the establishment of an NGO, experiences of regional development processes or the fictive development of a product.

4. Application of the Graz Model: The students explain the characteristics of the particular organisation/network/project – structured on the basis of the five principles of the Graz Model. Each principle is analysed in the three levels; i.e. explaining the principle 'participation' – it is being described how participation takes place within an organisation or project; how is information, consultation and decision-influencing implemented. As a result you receive a comprehensive picture how integrative an organisation is working and what further adaptations might be useful, e.g. are there stakeholders within the social network, who should be stronger involved in the decision making processes, etc.