GERMANY
(Thüringen)

1. Aims

The start-up project of the Thuringian Ministry for Education, Science and Culture (TMBWK) "Development of Inclusive and Innovative Learning Environments" is a part of the overall framework of the Thuringian Sustainable Learning Strategy (TNS), which focuses on the section "Education for Sustainable Development" (cf. TNS, chapter 6). The objective is to stimulate children, adolescents and adults to think, learn and act in a sustainable way. Adolescents and adults are to be led and supported during their individual pursuit of knowledge about global connections and challenges such as climate change and the global justice and their complex economic, ecological and social causes. With respect to these issues, an important concept to be considered during this process is 'Gestaltungskompetenz', or competence to shape the future. It is understood to mean the ability to recognize problems of sustainable development and to use relevant knowledge.

'Gestaltungskompetenz' consists of skills such as foresighted thinking, interdisciplinary knowledge, independent action and participation in societal decision-making processes. However, the development of attitudes and convictions, as well as self- and group decision-making experiences on the part of the learners are also of substantial importance in order for learning processes to be stimulated and sustained in a long-term way.

Upon these premises, the following goals for the start-up project "Development of Inclusive and Innovative Learning Environments" have been defined as:

- Creation of an inclusive educational system in all subject areas

- Further development of elementary and primary educational school settings

- Acquirement of key competencies

- Individual support at all stages of life

- Taking into account individual psychological and physical well-being

- Development of self-efficacy and

- Regional anchoring and integration of new teaching and learning cultures

In this regard, the existing learning environments of Thuringian schools, which already manifest a wide array of inclusive and innovative applications, are to be focused upon, and in accordance with the aforementioned objectives, the concrete needs, for each school are to be further developed.

The Thuringian School Law, the Thuringian General School Rules, the National Educational Standards, the Thuringian Teaching Curricula, the Thuringian Education Plan, and the United Nations Disabled Rights Convention form the basis for the further development of Thuringian schools.

Further orientation is provided by the results of the project CERI/ILE (Innovative Learning Environments) of the OECD, during which case studies at three selected Thuringian schools (ImPULS-Schule Schmiedefeld, Lobdeburgschule Jena and Jenaplan-Schule Jena) were successfully performed.

2. Leadership and Partners

The TMBWK is leading the start-up project "Development of Inclusive and Innovative Learning Environments". Along with scientific support provided by the Friedrich-Schiller-University of Jena as well as involved groups such as the Committee for Sustainable Development, the Committee for Inclusive Education, the Thuringian Ministry for Social Affairs, Family and Health (TMSFG), the Thuringian Ministry for Forest, Environment and Nature (TMLFUN), the Thuringian Institute for Teaching Development, Curriculum Development and Media (ThILLM), the governmental offices for education in Thuringia and the OECD, this start-up project aims to further develop, certify and network already existing learning environments in Thuringian schools and their inclusive and innovative approaches.

3. Strategies and activities

The main area within the start-up project lies in the work of approximately 40 start-up project schools which have been accepted for this program, and on their way toward becoming 'reference schools'. These work with high quality in selected areas of inclusion such as in innovative learning environments, thus being able to provide other schools who visit them with a clear impression about their school practices. These schools are keenly interested in continually improving their quality with regard to their developmental goals. Subsequent to a selection process, these schools will be individually supported by the partners and projects below. Within the framework of scientific support, there will first be a "state evaluation" of the school and the educational work on location. Based on these evaluation results, counselling and further education courses will be designed. For this purpose, school development counsellors will be certified for the work with the 'reference schools'. The entire process will be documented and evaluated. In addition, educational resources will be gathered, which can be further utilized in the area of teachers' training.

The networking of existing and available Thuringian initiatives, projects and developmental areas are, for example:

- Nelecom (new learning culture in communities),
- SINUS (program for the further development of teaching mathematics and sciences)
- E.U.LE. (development program for teaching and learning quality),
- DenkBunt German State Program (Thuringian state program for democracy, tolerance and world openness),
- ProLesen (project for the promotion of reading competence),
- Demokratisch Handeln (contest for schools of general learning),
- Buddy-Projekt (motto: Looking after one another. Being there for others. Learning with others.),
- Umweltschule in Europa (students and teachers commit themselves to environmental and sustainability projects at their schools or in their vicinity), and
- SefU (students as teaching experts) should be further expanded with the goal of achieving synergy effects.

4. Context

The "Education for Sustainability Development" (BNE) in Thuringia represents a main focus within the Thuringian Sustainability Strategy Program. It was developed in 2011 and has been ratified and introduced by the Thuringian government. This was the last step of a multi-year process in which a multitude of actors related to sustainability activities were involved. Since 2009, 14 members from various societal, political and economic areas have been appointed to become part of the Advisory Board for Sustainable Development.

This Board steers the cooperation with the general society and accompanies or counsels the state government on the subject of sustainability. The TMLFUN, together with the TMBWK, is responsible for the coordination with the UN Decade Thuringia.

The Sustainability Centre Thuringia serves to oversee the carrying out of the local agenda and the education regarding sustainable development on location. A BNE– state coordinator from the TMBWK has been working in the area school system since 2008. There are three teachers who are working as trained BNE-multipliers. In order to carry out the Thuringian Sustainability Strategy, six start-up projects in various departments have been approved:

a) Chance-oriented demography management – general local services, (civic participation) (TMBLV),

b) Sustainable surface politics (TMLFUN),

c) Sustainable energy supply using renewable energy sources (TMWAT),

d) Development of inclusive and innovative learning environments (TMBWK),

e) Promotion of energy efficiency measures in KMU (TMWAT), as well as

f) Alliance for a sustainable medicinal care (TMSFG).

The state legislature passed the Thuringian Sustainability Strategy and approved the start-up projects. It required, through its act passed on February 14, 2012, that the governmental work group and the Advisory Board for Sustainable Development coordinate and oversee the process of carrying out the start-up projects.

5. Resources

Within the framework of Thuringian educational policies, funds for the scientific support from the Friedrich-Schiller-University of Jena, overseen by Prof. Gläser-Zikuda, in the amount of 130,000.00 Euros will be made available by the TMBWK for the implementation of the start-up project "Development of Inclusive and Innovative Learning Environments". Furthermore, schools receive support through the distribution of additional weekly teaching hours and for non-staff costs, for example: material costs, travelling costs and hourly wages for consultants. Finally, the start-up project will be appropriated with 100 weekly teaching hours from the pool of support systems for advisors of school development.

6. Development over Time

The time schedule for carrying out the start-up project:
Project phase/step

Phase 1

- Development of quality criteria for innovative and inclusive learning environments,
- Development of criteria for the selection of participating schools for the start-up project,
- Evaluation of the initial situation found at the start-up project schools/reference schools,
- Agreement of implementation measures with the start-up project schools/reference schools, including the administering of advice.

Time frame: mid-2013 until the end of 2014

Phase 2

- Development of advisory and training concepts for the start-up project schools/reference schools,
- Carrying out of network meetings between the start-up project schools/reference schools; conferences or training courses with an extended circle of involved persons.

Time frame: mid-2013 until the end of 2015

Phase 3

- Carrying out of evaluations and effectiveness measurements of the start-up project schools/reference schools

Time frame: end of 2015 until mid-2016

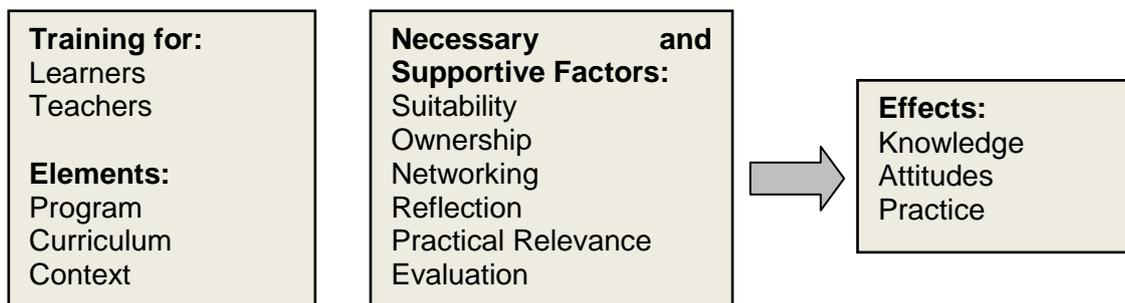## 7. Evidence of effectiveness and efficiency

A comprehensive scientifically-based counselling and accompaniment depends on an exact determination of the implementation measures, based on the foundation of CERI/ILE case studies, as well as on the planned working processes. First of all, the development of a conceptual framework is necessary within the framework of the first phase of the start-up project. This is due not only to the theoretical foundations of innovative learning environments that must be accounted for, but also for the respective expert discussions with regard to the requirements of inclusive education. For this purpose, the analysis and summarization of national and international literature, as well as the development of a framework model and a criteria matrix for understanding innovative (and inclusive) learning environments, are necessary steps to be carried out. Based on this theoretical-conceptual clarification, the evaluation of the initial situation (quality of learning environments, competency measurements, innovation needs in the opinion of those participating, etc.) is then the next step to be taken. For this purpose, a comprehensive collection of qualitative and quantitative data will be carried out at the start-up schools/reference schools.

A justified selection of Thuringian schools as start-up project schools/reference schools is to be made based on clear criteria (ex. based on school type, reform orientation, participation in previous innovative measures, school size, and regional characteristics, among others). Furthermore, cooperation agreements with these schools are to be made, as well as a systematic custom-made training concept based on the school's needs and those of individual colleagues. Related to this is the documentation of the present pedagogical work situation (the analysis of school programs, evaluation results etc.) of these participating schools with respect to the inclusion concept understanding.

Adequate evaluation procedures in line with mixed method approaches (Gläser-Zikuda et al., 2012), as well as interview procedures are to be developed. The collected data must be evaluated. Based on the decisions made in the first phase, appropriate advisory- and in-service training possibilities will be developed and offered. Counselling for teaching staff, school directors, and further pedagogical experts, as well as for students and parents is planned. Observations in lessons during the implementation of inclusive and innovative learning environment elements serve as part of the process-oriented support function and aims at gaining feedback from colleagues. In this process, the focus will be on the balanced development of school-, lesson- and staff development. Goals, measurements, and progress will be jointly reflected upon and documented during regular progress and development meetings. Furthermore, regular cooperative meetings will take place between reference schools, but also conferences with an extended circle of participants (for example with those participating from the E.U.LE. and SINUS organizations etc.). In addition, the advisors for school development are to be trained so that they can take over the role of facilitators in the third phase of the project. This phase is to be understood as the focal point of the scientific support and covers a total of two years.

For the planned implementation measures, the theoretical framework concept for an efficiency analysis can be utilized. It is named the so-called Impact of the Professional Development Model (IPROD Model) (cf. Zehetmeier, 2008), developed during the scientific analysis of teacher training principles. The model encompasses, in addition to different levels of efficiency concerning teacher training (knowledge, attitudes and classroom performance), a categorization of characteristic elements found in training measures (such as the learners, teachers, program curriculum and context) and those factors which promote or restrict the appearance of positive effects (see Figure 1) (cf. Zehetmeier, 2008).

Figure 1: The simplified IPROD Model

Training for: Learners Teachers **Elements:** Program Curriculum Context	**Necessary and Supportive Factors:** Suitability Ownership Networking Reflection Practical Relevance Evaluation	⟹	**Effects:** Knowledge Attitudes Practice

A selection of promoting factors will be taken into account along with the presented project goals which, within the context of communal network managements can be made fruitful and applied with regard to the effect-promoting design for teacher training concerning the development of innovative learning environments (see also Zehetmeier, 2010):

- *Suitability* means that the in-service training offerings are oriented to the learners' needs (the teachers, school directors and other pedagogical personnel), and allow for participation in the selection opportunities of these offerings.

- *Ownership* means that it is important to involve the learners in the planning and implementation of measures and to support them in their role as facilitators. Research in the field of teacher training has shown that the involvement of teaching staff in innovative processes promotes their willingness to carry them through long-term; hereby the term empowerment can also be used to show learners the possibility that they can influence their own development.

- *Networking* means that the training measures promote cooperation and exchange of ideas within expert groups, stimulating them to form groups called 'learning communities' or 'professional communities'.

- *Reflection* includes discussions and reflections among the learners as well as the evaluation of products (such as lesson plans, lesson videos or student written work). Within this context, written self-observations (daily journal or portfolio; cf. Gläser-Zikuda & Hascher, 2007) or case study documentation could also be used. The reflection concept is with regard to the relationship between theory and practice.

- *Practical relevance* implies the use of practical work phases during the training session in order to obtain possibilities for active learning.
- *Evaluation* means that continual evaluation and feedback measures within the training session programs are to be carried out.

The implementation measures will be developed and carried out focusing on the Thuringian Sustainability Strategy for Inclusive and Innovative Learning Environments.

8. Success Factors

Thuringia has been the only German state to participate in the CERI/ILE (Innovative Learning Environments) project of the OECD. The results of the case studies have already received very positive and broad responses. This start-up project "Development of Inclusive and innovative Learning Environments" should follow along the lines of the previous work which Prof. Michaela Gläser-Zikuda of the Friedrich-Schiller-University of Jena has successfully performed within the framework of the project CERI/ILE (Innovative Learning Environments) - case studies which involved three chosen Thuringian schools (ImPULS-Schule Schmiedefeld, Jenaplan-Schule Jena, Lobdeburgschule Jena).

9. Tensions and impediments

The project is currently still in the first phase of the presented time schedule (see Q.6). At the moment, quality criteria for innovative and inclusive learning environments, as well as criteria for the selection of participating schools in the start-up project are being developed. Tensions and hindrances which directly influence the start-up project do not exist at this time.

10. Sources

Materials for public advertising work are still being designed at this time. Information regarding the projects, initiatives and developmental areas mentioned here can be obtained on the Thuringian School website (www.schulportal-thueringen.de).

References:

Gläser-Zikuda, M. (2012). *Self-reflecting methods of learning research*. In: N. Seel (Ed.), *Encyclopedia of the Sciences of Learning*. New York: Springer.

Gläser-Zikuda, M., Seidel, T., Rohlfs, C., Gröschner, A. & Ziegelbauer, S. (Eds.) (2012). *Mixed Methods in der empirischen Bildungsforschung*. Münster: Waxmann.

Gläser-Zikuda, M. & Hascher, T. (Eds.) (2007). *Lernprozesse dokumentieren, reflektieren und beurteilen. Lerntagebuch und Portfolio in Bildungsforschung und Bildungspraxis.* Bad Heilbrunn.

Thüringer Nachhaltigkeitsstrategie (2011), Kapitel 6

Zehetmeier, S. (2010). Wie (lange) wirkt Fortbildung? In:T. Janik & P. Knecht (Eds.), *New Pathways in the Professional Development of Teachers - Neue Wege in der Professionalisierung von Lehrer/inne/n* (S. 73-80). Wien: LIT.

Zehetmeier, S. (2008). *Zur Nachhaltigkeit von Lehrer/innenfortbildung*. PhD Thesis at Alpen-Adria-University Klagenfurt.