SUSTAIN CONCEPT PAPER

1. The aim of this document

The purpose of the present Concept paper is to set the frames of the SUSTAIN project basic concepts and processes, and to establish common criteria for estimation of the good practices within the project context.

The document aims to define the partners' common understanding about:
- Ecological intelligence
- Sustainable development education
- Key competences for LLL
- Criteria for good practices within the context of the project
- Test-implementation process

2. The standing point

For estimating the project grounds, partners prepared short overviews of the national education systems and national curricula for pre-primary and primary school stage.

The analysis of the partners' reports show that the educational systems in all project countries have similar structures and that the aims of the educational process at this early stage of education and upbringing of the children are alike. The basic domains of children's development addressed by the pedagogical work are compatible with the key competences for LLL:

domains	key competences
1/ development of linguistic (communication) competences	Communication in mother tongue or communication in second language (for children with immigrant or linguistic minority background)
2/ knowledge about self and the world (social world, everyday life, hygiene, nature)	Basic competences in mathematics and science; Social and civic competences; Digital competence; Cultural awareness and expression
3/ social and emotional skills (incl. arts – music, painting, etc.)	Social and civic competences; Cultural awareness and expression; Communication in mother tongue or communication in second language
4/ cognitive skills	Learning to learn and entrepreneurship competences
5/ psychomotoric development	Learning to learn; Cultural expression

The subject domains in the primary education likewise correspond to the key competences for LLL. The details of the national curricula are extracted in the national reports, produced by the project experts.

Whether directly referring to the framework of the key competences for LLL (as it is in RO) or not, national curricula define in one way or another that the objectives of the training are to

deliver achievable knowledge, skills and attitudes that correspond to the age characteristics of the children. Although the European Reference Framework of the key competences for LLL is not widely known by the teachers in most of the partner countries, is can safely be said that the national curricula have embraced the competence oriented education process, which does not focus only on delivering knowledge, but also intends to master skills and attitudes.

Certain hindrance to the practical implementation of the competence oriented education is the aging teachers' workforce in some of the project countries. With an average age of 50+ for over 30% of the primary school teachers in Italy and Romania (26% in BG) it is clear that substantial number of teachers in the project countries had graduated their university studies in different educational context. Implementing more modern approaches that master more efficiently development of students' key competences requires additional training and methodology support.

These conclusions were confirmed also through the inquiries of the teachers' needs carried out in the frames of SUSTAIN project. Although the data between the partner countries vary, teachers state their needs and interests towards:
- **attending qualification courses** (interactive, presenting participatory methods; well targeted courses that match teachers' particular practice/subject area specifics; courses in communication between teachers and pupils);
- **availability of practical tools** (methodological guidelines and exemplary lesson plans / textbook / books; shared practices);
- **support for classroom implementation of new teaching tools and methods** (incl. informal meetings, experiences exchange, etc, as well as technical equipment: computer/s, internet, printer, beamer, etc).

3/ Basic concepts

3.1. Natural learning concept and Ecological intelligence
The roots of the international project SUSTAIN lay on the ***Natural Learning Concept (NLC)*** which has been developed and implemented in Doga schools (TR) over the past ten years. It emphasizes the importance of teaching process that reflects learners' interests, stimulates their creativity and self-direction through creating a stimulating learning environment in which students can explore and come into direct contact with knowledge in welcoming classrooms, opened to the nature and the surrounding world.

This NLC gives importance to ***Ecological Intelligence*** which refers to the ability to adapt to our environmental niche. ***Ecological*** refers to an understanding of organisms and their ecosystems (knowledge about how things, nature and natural laws), and ***intelligence*** lends the capacity to learn from experience and to deal effectively with our environment (recognizing and understanding the countless ways manmade systems interact with natural ones). Ecological intelligence allows application of what students learn about how human activity affects ecosystems so as to do less harm and to live sustainably in our niche — these days the entire planet. Ecological intelligence blends the knowledge with empathy for all life. *Natural Learning Concept* aims to raise persons who are effectual for the environment with this empathy and who have broader perspectives in cultural, social and scientific fields.

NLC takes the fact that the best method is "learning through experience" and embraces 2 innovative strategies:

1/ 'multi–intelligence' where students can learn how to maximize their abilities, can increase their discovery skills and uniqueness; this innovative approach develops students skills to analyze, reason and communicate effectively;

2/ 'genial (welcoming) classrooms'[1] that guide students to display their abilities in an atmosphere free of criticism and judgment; it honors every students' experience – students' ideas are respected, listened to and celebrated.

Combined with observation of the environment these approaches create synergy between education and the area of environmental responsibility. Students and teachers gain personal fulfillment through an open, attractive, nature-based learning environment. NLC develops ecological intelligence on children from the early ages where in the future this practice will create awareness on student about ecological balance.

3.2. Sustainable development

The most frequently quoted definition of "sustainable development" is proposed by the founder of *Worldwatch Institute* Lester Brown (WCED, 1987), according to whom "*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*"

The concept of sustainable development is defined by three dimensions: economic, social and environmental.

In 2005, the member States of **United Nations Economic Commission about Europe (UNECE)[2]** adopted a Strategy for Education for Sustainable Development (ESD) in order to promote sustainable development. The Strategy is a practical instrument that aims to encourage UNECE member States to incorporate ESD into their formal education systems, in all relevant subjects, and in the non-formal education.

Since this Strategy for ESD presents **key themes** of the sustainable development, it was considered appropriate to be accepted as one of the theoretical pillars of the SUSTAIN project.

The key themes of UNECE Strategy for ESD include, among others: citizenship, peace, ethics, poverty alleviation, responsibility in local and global contexts, democracy and governance, justice, security, human rights, health, gender equity, cultural diversity, rural and urban development, economy, production and consumption patterns, corporate responsibility, environmental protection, natural resource management and biological and landscape diversity.

The implementation of ESD requires a special attention given to the following areas: improving basic education, reorienting education towards sustainable development, increasing public awareness and promoting training.

According to the Strategy the effective ESD should:

1) Be addressed in two ways:
    (a) through the integration of ESD themes across all relevant subjects, programmes and courses of the education; and
    (b) through the provision of specific subject programmes and courses;

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[1] Ref: *Awakening Genius in the Classroom* by Thomas Armstrong

[2] The *United Nations Economic Commission about Europe* (UNECE) is one of the five regional commissions of the United Nations; it brings together 56 countries from European Union, non-EU Europe, South-East Europe and Commonwealth of Independent States (CIS) and North America to dialogue and cooperate on sustainable development and economic prosperity issues.

2) Focus on enabling meaningful learning experiences that foster sustainable behaviour, including in educational institutions, the workplace, families and communities;

3) Increase cooperation and partnerships among members of the educational community and other stakeholders. Further involvement of the private sector and industry in educational processes will help to address rapid technological development and changing working conditions. Learning activities in close relation with society will add to learners' practical experience;

4) Provide an insight into global, regional, national and local environmental problems explaining them by means of a life-cycle approach and focusing not only on the environmental impact, but also on the economic and social implications, addressing both the natural environment and that modified by humans;

5) Use a wide range of participatory, process- and solution-oriented educational methods tailored to the learner. Apart from the traditional ones, these should include among other things *discussions, conceptual and perceptual mapping, philosophical inquiry, value clarification, simulations, scenarios, modelling, role playing, games, information and communication technology (ICT), surveys, case studies, excursions and outdoor learning, learner-driven projects, good practice analyses, workplace experience and problem solving*;

6) Be supported by relevant instruction materials, such as, *methodological, pedagogic and didactic publications, textbooks, visual aids, brochures, cases studies and good practices, electronic, audio and video resources*.

3.3. Key Competences for LLL
Key competences for LLL are as follows:
1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical competence and basic competences in science and technology
4. Digital competence
5. Learning to learn
6. Social and civic competences
7. Sense of initiative and entrepreneurship
8. Cultural awareness and expression

For the purposes of the SUSTAIN project, the basic definitions for the key competences will be based on the "Key Competences for Lifelong Learning – A European Framework" which is an annex of a Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning.

The full text in English and other linguistic versions of the brochure can be found at the following website: http://ec.europa.eu/dgs/education_culture/publ/educ-training_en.html

4. The Good practices' Criteria

For the purposes of this document "practice" would mean a lesson plan or activity description that can be implemented in formal (in-school or out of school) or informal education context.

Taking in consideration SUSTAIN project aims and objectives and the above described context, the following criteria are considered for assessment and selection of the SUSTAIN good practices:

1/ The practice addresses at **least one** sustainable development issue/ topic

2/ The practice develops **2, 3 or more key competences** for LLL simultaneously

3/ The lesson plan of the practice contains detailed description of the process, as well as all resources and supporting materials necessary for its implementation.

4/ The practice is tested (approbated) by teachers in more than 1 project partner country and has received positive feedback

5/ The practice matches the curriculum requirements (or is suitable for extracurricular activities) in more than one project partner country

6/ The practice is applied without difficulties or major modifications

7/ The practice contains participatory, process- and solution-oriented educational methods tailored to the learner (see 3.2. above)

8/ The practice encourages cross-curricular (interdisciplinary) links

9/ The practice is relevant to the age of the SUSTAIN targeted learners

10/ The implementation of the practice has positive impact on the targeted learners (positive feedback / proven effectiveness)

11/ The practice has transferability potential (for other national contexts / age target groups or else)

Each of these criteria will be considered within a 5-grade scale, allowing the maximum score of 55 points per practice. Fifty (50) practices with the highest scores will be included in the *SUSTAIN database with good practices* and published on the project web site: www.sustain-project.eu.

5. The process of the SUSTAIN project test-implementation

The test-implementation stage within the SUSTAIN project will take part predominantly during the first half of the 2012–2013 school year. The objective of the test-implementation is approbation of existing practices in the partners' countries as well as development of new practices by teachers and project experts which will further be shared with the implementing teachers. The purpose of this process is to determine the best practices among the existing and newly developed – those that answer to the greatest extent the criteria, listed above and that are suitable to be included in the SUSTAIN database for good practices as exemplary units.

It is also recommended test-implementation period to continue during the second half of the 2012–2013 school year and beyond the frames of the eligible project period. The outcomes of this stage will be published on the SUSTAIN platform and will qualify for the SUSTAIN biennale, but will not be considered for the other major project outcomes with the view of the pre-set project implementation periods and deadlines for delivery of the project outcomes.

During the process of the test-implementation partners will collect feedback from the teachers engaged in it. To facilitate this process "Questions for structuring teachers' feedback on test-implementation of the practices" were provided (see section Annexes below). The feedback aims to determine practices which, **from the point of view of the teachers**, are most relevant to the project objectives; were implemented into practice without major difficulties or modifications and would be preferred by teachers for future implementation with other pupils.

Project experts in each country will summarise teachers' feedbacks and will use them as one of the sources for preparing reports on the test-implementation. Experts' reports will contain also: overview of the test-implementation in each country, practices from other countries which were subject of approbation; new practices produced and implemented by the teachers; thematic overview of the practices, etc. "Guidelines for experts' feedback on test-implementation of the practices" are available to help experts to structure their reports (see section Annexes below).

Experts will consider teachers' feedback also for establishing the contents for the *SUSTAIN database with good practices*. In addition to the teachers' feedbacks, all lesson plans suggested by experts and teachers in the partner countries will be assessed with the application of the "Good practices' criteria", listed above (see section 4). The database will contain at least 50 Good practices, described in the format defined by the project experts and equipped with additional resources which allow their practical implementation (videos, graphics, models, links to on-line materials and other).

ANNEXES

Questions for structuring teachers' feedback on test-implementation of the practices

1/ Title of the lesson plan which you tested:

2/ Why did you choose it:

3/ To which subject/s (subject area/s) this activity corresponds?

4/ Which key competences of your students were expanded through the implementation of this activity?
- [ ] *Mother Tongue Development*
- [ ] *Communication in Foreign Languages*
- [ ] *Science & Mathematical Competence*
- [ ] *Digital Competence*
- [ ] *Learning to Learn*
- [ ] *Social and Civil Competences*
- [ ] *Entrepreneurship Competences*
- [ ] *Cultural Awareness and Expression*

5/ Which sustainable development topics did you consider through this activity?
- [ ] *World Citizenship and Democracy*
- [ ] *Waste Materials and Recycle & Reuse*
- [ ] *Bio-diversity*
- [ ] *Production and Consumption Methods*
- [ ] *Healthy Life*
- [ ] *Natural Resources Management*
- [ ] *Local and Global Responsibility*
- [ ] *Human Rights, Peace and Justice*
- [ ] *Cultural Diversity*
- [ ] *Rural and Urban Development*
- [ ] *Other ....*

6/ Did you modify it in any way before implementing it? If yes – please, explain briefly how.

7/ Did you have any difficulties in getting the resources suggested for the implementation of the activity? If yes – please, describe.

8/ Did you have any other difficulties for implementing this activity (e.g. special permission from the headmaster required, sanitary constrains or else)?

9/ Would you use this activity in the future with other pupils?

10/ Were you engaged in *peer coaching* at any stage of your preparation for implementation of this activity? If yes – please, explain briefly.

11/ Would you use the SUSTAIN platform in the future to:
- Get ideas and resources for future lessons
- Share your lessons and experience with other colleagues
- Communicate with colleagues from your country and from other countries and to plan cooperative activities

Guidelines for experts' feedback
on test-implementation of the practices

A/ Experts' feedback

1/ General overview:
how many teachers in how many schools took part in the test-implementation; rural or city schools; how local experts took part in the process of the test-implementation, etc.

2/ Testing suggested practices *form the partner countries*:
how teachers accessed the suggestions (through the platform or else); how did they select which practice to test (e.g. own choice or after consulting with the local experts); does any international cooperation or peer coaching took place; major difficulties in the test-implementation process (from the external point of view); positive results from the test-implementation, etc.

3/ Test-implementation which *produced new lesson plans*:
how teachers cooperated with the local experts; does any international cooperation or peer coaching took place; difficulties and positive results from the test-implementation, etc.

4/ Thematic overview:
which topics are (were) most popular; which sustainable development topics were covered during the test-implementation; was it easy to match the sustainable development problematic with the main curriculum; in which subjects (subject areas) of the national curriculum match the tested lessons (and the new suggestions); which key competences were predominantly considered and developed, etc; were there any differences in the teachers' approach to the *practices from the partners countries* and when considering their *own lesson plans*?

B/ Overview of the teachers' feedback

Summary of the feedback following the main questions answered by the teachers; some conclusions regarding the SUSTAIN platform.

C/ Conclusions:

Major points where teachers' and experts' feedback meet and/or diverge; main conclusions regarding the lesson plans after the test-implementation; suggestions for "best practices"; conclusions/suggestions regarding the SUSTAIN platform.