YOUrALPS project

ALPINE SCHOOL MODEL

Educating Youth for the Alps

Alpine school

YOUrALPS project

Alpine School Model, extract from official pubblication - February 2019

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FORWARD

The present document was meant as an extract of the Alpine School Model to facilitate and handle the concrete implementation of the pedagogical and organizational indications.

Par. 1 - A pedagogical holistic model

Alpine School Model (ASM) is designed for schools and non-formal educational organizations and its targets are all educational actors (learners, teachers, educators), providing specific suggestions to enhance their mutual collaboration in organizing high quality educational paths within their living territories and communities. Its indications are inspired by UNESCO Education for Sustainable Development (ESD) principles and based on last decades best practices and lesson learned from most authoritative international Environmental Education and Global Citizenship networks.
As much as ASM could be used in a very simple way as a handbook to set educational activities (for example, used to organize a day visit in a mountain protected area), the preferable solution is represented by the track for continuative ASM related projects in school's offer plan with school lesson alternate to visit/outdoor experiences, and most of all with the possibility to structure a school curriculum applying to the Alpine Schools certification path.

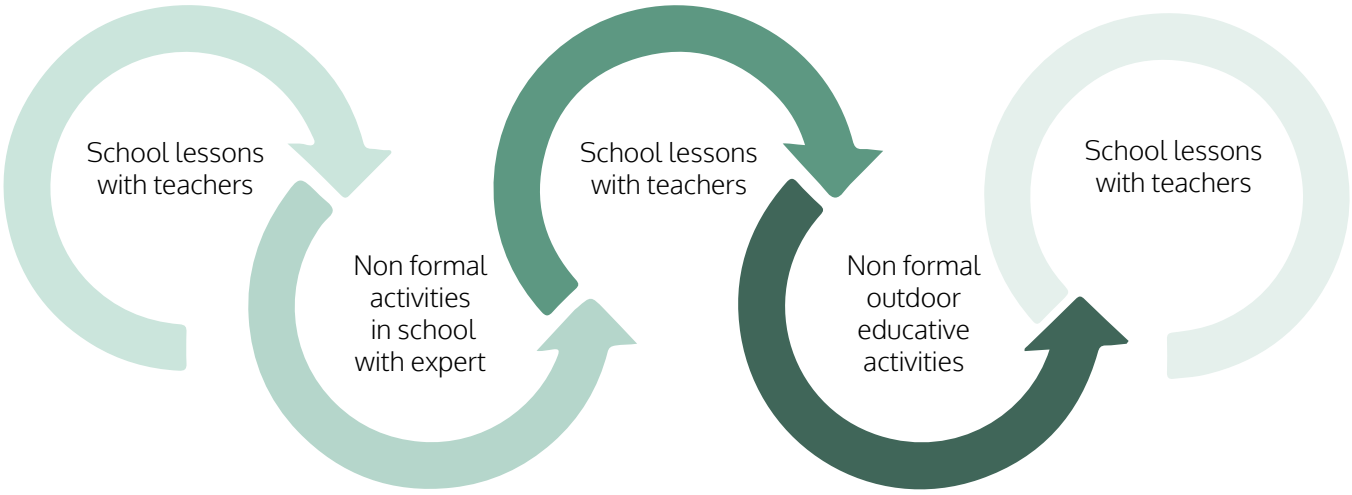

Figure 1 – The process of work in schools within the Alpine School Model Indications

The Alpine School Model is organized as a pedagogical tool based on a panel of eight criteria, in accordance with the key alpine area specificities. In the following page you can find the scheme oriented to suggest a vision of the whole model, with a synthesis of components consistency and their functional relation.
The ASM criteria sum up the steps to structure a ASM friendly project and concern the four key questions to ensure high quality educational processes WHO? WHAT? WHERE? HOW?
In the following paragraphs each step/criterion will be deepened and introduced in detail.

Set your ASM friendly project in 7 steps:

1 WHO
Formal and non-formal education

Establish stable and effective cooperation with local educational stakeholders

Schools and non-formal organizations should plan consistently

2 WHAT
Alpine key Sustainable Development Issues

Analize your local context issues and set project goals

Ensure a thematical interdisciplinary structure based on alpine key Sustainable Development issues

3 WHAT
Alpine Sustainable Development values

Activate the sphere of values

Support learners in assessing their starting values and in comparing them with the Alpine Sustainable Development values suggested in the Alpine School Model

4 WHAT
Alpine Sustainable Development competences

Evaluate what skills and knowledges are required in alpine contexts

Compare with Alpine Sustainable Development Competences suggested by the Alpine School Model

5 HOW
Cross-curricular perspective

Enhance thematical interconnections in your educational activity

Then, relate it to school subjects and disciplines

6 HOW
Methods and strategies

Adopt a learner-centered approach

Integrate outdoor learning activities and techniques

7 HOW
Take action!

Get in contact with other projects and educational activities developed within the Alpine School community

Par. 2 - ASM first element: Integration between formal and non-formal education actions

ASM first aim is at strengthening local networks of schools and organizations involved in non-formal educational processes and encourages ESD-MoE projects designed and led by a multiplicity of actors.
Possible typologies of organizations involved in non-formal educational paths should be first of all the protected areas at local, regional and national level that should actively involve and steer a network of other institutional, private and public bodies with pedagogical-didactic expertise to raise awareness on alpine key SD issues.
Several typologies of non-formal organizations are often competent and available in supporting schools in focusing on local context, creating dimension with the real world and most critical issues and in setting realistic, current and ambitious goals for a sustainable development project. Just to make some specific and concrete examples, the non-formal educational organizations to be involved at local level should be: scientific research organizations, mountain rescue associations, museums, mountain guides, farmers, local experts for natural and cultural heritage and representatives of local communities, national forestry office guards, companies and shops, tourist association, NGO and associations and regional or local authorities and institutions.

Find good examples on AlpineSchool Model document Annex 4
To help learners to develop skills not otherwise developable in the ordinary school classroom at cognitive, physical, emotional level, local relevant actors involved in non-formal educational process, often master specialized expertise and familiarity on particular environment beside the practical experience and organizational capacities.

Operatively...
It is recommended that schools should create a network of local non-formal organizations with different role and competences in the project.
Within ASM some suggestions are recommended for the success of the project:

- Non-formal organizations should prepare in advance, at the beginning of the school year, their proposals to be presented to formal education institutions: they're invited to ensure a clear and accessible offer, highlighting the technical contents they will provide during the project running time, referring to ASM pedagogical elements (alpine key SD issues, SD knowledge and skills, learner centered methods), that contribute to the effectiveness of the teaching process,
- Non-formal organizations and teachers have joint planning meeting and they cooperate in filling the plan form of the project
- During the school year or during the whole ASM certification process duration time, schools implement the project activities, foreseeing at least two outdoor visits one of which in a protected area; experts are available to teachers for help as following scheme indicates,
- At the end of the school year or at the end of the certification process, schools and non-formal organizations meet to fill the Certification Reporting Form together, in order to evaluate if the original goals were reached.

Par. 3 - ASM second element: Setting project goals and issues within an interdisciplinary way

The multi-perspective of the project is a requirement to guarantee the complexity asked to a SD project framework: ASM aims at stimulating schools and educative organizations in dealing with a strategical net of integrated issues related to alpine sustainable development.
Sustainable Development key issues suggested in SDGs of UNESCO Agenda 2030, were prioritize and deepened for the alpine context, highlighting their interconnections and mutual dependence, through the identification of three main strategic pillars underpinning relevant themes and associated values and linked to international and UE strategic issues.
In the figure below is provided an overview of the three thematical pillars (environmental, socio-economic, governance) and their underlying key alpine SD issues: nature protection, agro-managed landscape conservation, climate change and the related topics and sub-topics.

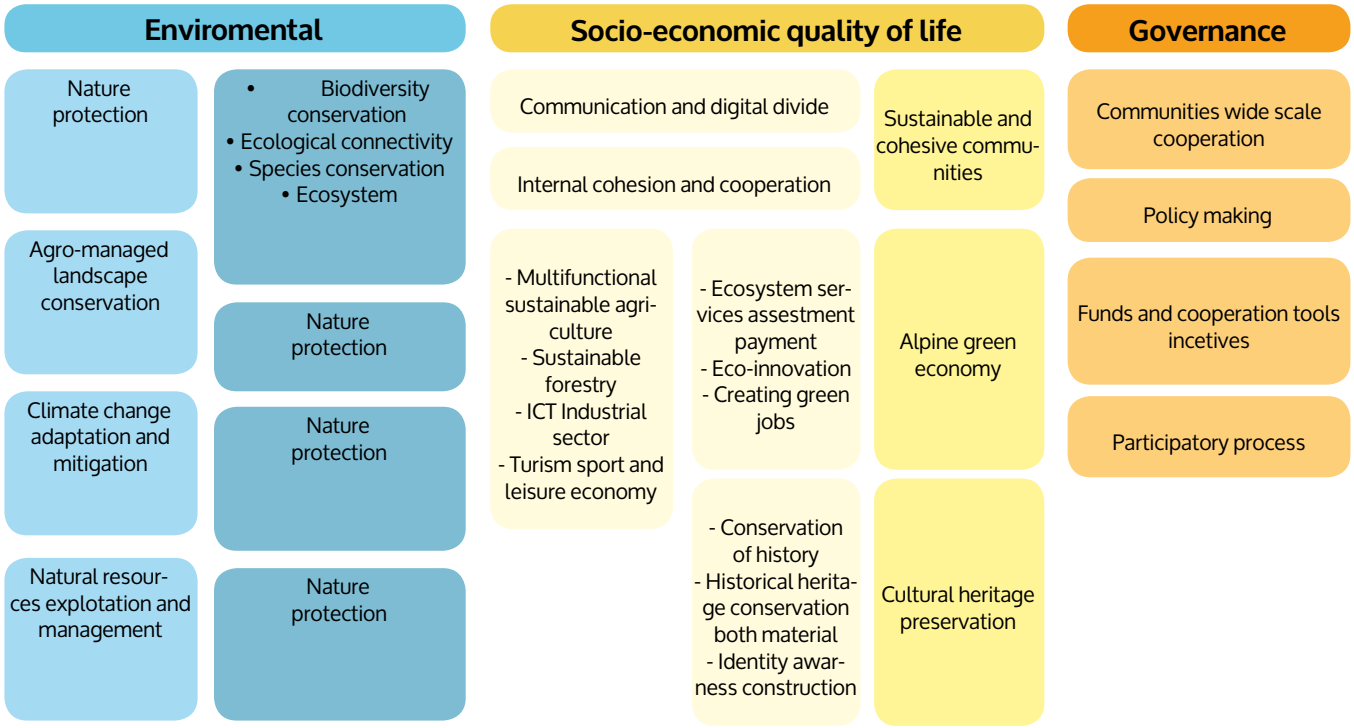

Figure 7 – Scheme of the alpine key SD related issues

It is recommended to schools and educational organizations to work on educational paths, setting projects, school activities or the whole curriculum, paying attention to the following indications:

1. fostering the thematical perspective suggested by local contexts and communities, in order to strengthen the ability of learners to develop knowledge and skills of their daily life and their capability to intervene on it,
2. ensuring an interdisciplinary structure including the perspective of at least one alpine key sustainable development issue for each of the three pillars suggested by the ASM and presented in the following

Pillar 1 – Environmental

Nature protection

Alpine systems, due to their topography, have many sites with a specific microclimate and this is one of the reasons for the high alpine biodiversity, that make the alpine area as one hotspot for habitat and species diversity. Biodiversity conservation in its comprehensive meaning, including the diversity of species, of ecosystems and habitats, should be one of the more critical and founding issues for ASM. Fostering biodiversity requires actions in enhancing:

- ecological connectivity within the development of a strategically planned natural and semi-natural areas networks, within land and water spaces, inside and outside protected areas, functionally interconnected with Natura 2000 sites,
- species preservation and wild population conservation, especially for endemic ones and of critical species such are large carnivores and wild ungulates, alpine endemic flora and invertebrate taxa, according to priorities indicated by scientific research and monitoring activities outcomes,
- ecosystem and degraded habitats preservation and restoration and effective management of ecosystem services such are supporting services (nutrient cycling, soil formation, primary production), provisioning functions services like freshwater and energy reserves, and finally regulating functions such are climate, flood, disease regulation and water purification.

Cultural and agro-managed landscape conservation

The Alps are strongly characterized by cultural landscapes as the product of traditional human activities in natural resources exploitation which are present also at high altitudes, is traditionally marked by the great biodiversity and characterized by the coexistence of both natural and rural landscape. Those landscapes are the result of traditional skills and expertise in natural, agricultural and forestry management. In order to keep high levels of biodiversity and species richness, traditional and sustainable agriculture and farming practices must be promoted and supported in alpine areas in order to keep cultural and ecosystem services provided by mountain ecosystems. Farming and forestry have always been central to the Alpine economy and way of life. Not only do they provide food and wood for local consumption and export but play a vital role for local populations and maintaining a landscape that protects against soil erosion, floods and avalanches.

Climate change Adaptation and Mitigation

Climate change and its foreseeable effects on the environment, biodiversity and on the living conditions of its inhabitants is impacting more on alpine territories where is manifesting an exceptionally high-temperature increase twice the average warming rate of the northern hemisphere. This is likely to have a significant impact on the Alpine environment, which is sensitive, biologically rich and shows strongly localized biodiversity in small areas, for this reason, some impacts are already being clearly observed, such as distribution shifts in plant species, changes in the hydrological cycle, permafrost thawing, and glacier retreats. Promoting carbon-neutral economy and lifestyle through mitigations and adaptation actions will help driving sustainable development generating added economic value, innovation and boosting employment.

The Alps are among the areas most vulnerable to climate change in Europe and they also have a function as an early warning system for natural hazard. Natural hazards play an outstanding role as the primary source of vulnerability with the increasing exposure of settlements and infrastructure for the improvement of floods, debris-flow, mass movements, avalanches, forest fires. Cost-effective ways of natural hazards management are based on the availability of natural oriented solutions, e.g. the hydrological processes across the whole catchment to increase water retention capacities, reconnecting the river with their floodplain and restoring natural flows, wetlands and agricultural storages in order to slow down floods, increasing sustainable drainage with permeable surfaces.

Important measures to pursue in reducing GHG emissions:

- implementing renewable energy and energy efficiency in buildings and productive sites, energy saving constructions, in keeping sustainably, securely and affordably management demand, these include smart energy-efficiency networks and voluntary schemes for enterprises,

- improving incentives for low-carbon transport modes and encouraging the introduction of low-carbon vehicles and alternative fuels in public transport throughout the Alpine territory, contrasting noise and air pollution, and promoting a more accessible and interconnected network of public transport and infrastructure with inter-modality and interoperability in passenger and freight transport solutions in particular supporting modal shift from road to rail and promoting Green Infrastructure solutions as complementary solutions to Grey infrastructures,
- promoting low-carbon in housing warming and air-conditioning solutions.

Beside mitigation activities, it would be necessary considering the adaptation policies, in order to valorize actual constraint due to climate change effects as opportunities of Alps sustainable development. The adaptation to average temperature increases conditions will enhance the role of alpine areas in winter tourism, extending huts and pastures structures and seasonal alpine lake landscapes, as much as the extension of farming and breeding activities to heights.

Natural resources exploitation and management

Human communities depend for their survival on natural resources (metals, minerals, fuels, water, land, timber, fertile soil, clean air and biodiversity), in order to keep health, well-being and quality of life. Natural resources sustainable exploitation has to be promoted in Alpine regions where productive cycles must concern limits of ecosystem's carrying capacity towards Circular local economy within management of resource stocks, inputs reduction, optimizing production processes and consumption patterns, minimizing waste and boosting recycling.
Following items have to be considered:

- Keeping the multifunctional role of mountain forests in mitigating the risks posed by natural hazards, with adaptive management solutions, sustainably maintaining forest wood and non-wood production
- protecting of soil as a scarce resource which in mountain area is renewable only during several generations and at high costs, in minimizing or even avoiding land take and loss of productive soils, reusing brow fields,
- promoting sustainable and integrated management of the water resources in river restoration and sediment management. The Alps providing much of Europe with freshwater for drinking, irrigation, industry and electricity generation, water management requires an integrated approach to ensure a fair and rational use of this resource and preventing potential conflicts in water-demand and supply management. Promote water saving in all areas by supporting an integrated approach of the resource.
- improving waste management reduction and waste recycling rates.

2. Socio-economic pillar

Social & economic transformations have weakened the competitiveness and social attractiveness of the alpine productive systems and have also led to a progressive abandonment of mountain territories affecting the peculiar relationship between human communities and mountain environment, harming their historical co-evolution and disrupting a long-lasting resilience capacity based on:

1. Management of complex ecological habitats and ecosystem services,
2. Mountain land protection from natural risks,
3. Traditional agriculture and forestry practices,
4. Original know-how, skills and expertise to tackle environmental challenges,
5. Social cohesion and cooperation capabilities.

Alps have been deprived of human and technological resources and have lost a traditional capacity of land transformation and spatial planning. In forwarding a vision of Alps future to underlying ASM values, alpine local communities should be supported in building innovative social and economic more sustainable features such are natural capital as well as quality of life and wellbeing-based economy, valorizing the perception that limited possibilities could be the opportunities of innovative development.
Green Economy is an instrument to achieve sustainable development referring to UN Sustainable Development Goals, but also other sustainable development goals have strong linkages to Green Economy. EU policies on Europe 2020 strategy still considers the concept of economic growth as a competitive factor, but it also introduces the issue of properly assessing well-being.

Sustainable and cohesive communities

Due to the steepness and height of the terrain only a small portion of the whole of the Alps' area is suitable for permanent settlement and the actual demographic situation is characterized by over-aging and the abandon of mountainous territories. An important challenge for Alps future could be building strong, cooperating and cohesive communities able to face intensive changes and impacts, contrasting natural instability risks, poverty, abandon, isolation through the promotion of ethical values such are endurance, solidarity, inclusion. Communities have to be efficiently connected internally and with external contests through the digitalization process and the accessibility to services which are provided by public authorities.
Finally, the evolution of the job market towards green jobs should offer new opportunities of economic well-being and trigger a more socially inclusive development. The promotion of regional sustainable products should be fostered in order to contribute to the well- being of residents while supporting regional producers and economies.

Towards a green alpine economy

One of the main challenges is about keeping sustainable mountains economies, safe and long-term resilient. In order to reach this goal, it is important to improve economic features characterized by several innovative elements:

- ecosystem services economic value assessment with different payment models and incorporation of external environmental costs, into the market prices, using innovative concepts and instruments,
- eco-innovation for technological and non-technological solutions
- youth involvement in the labor market, creating future-oriented jobs characterized by high level of sustainability (Green jobs), within a dual vocational training as a base of the economic system.

These conditions have to be reached through the different economic sectors:

- sustainable rural development with the promotion of employment and job opportunities by sustaining farmers in adopting multifunctional and sustainable agriculture schemes and sustainable farming practices especially in production and marketing of quality food products. Particular attention has to been paid to organic agriculture experiences in mountain traditional productions,
- Mountain forests provide services to local and wide regional communities and the design of compensation/payment schemes or other market-based instruments could help ensure a long-term provision of these vital services,
- For the industrial sector, the use of ICT can help to develop new market potential and to bridge physical distances along with the creation of new low-carbon and innovative clusters and smart specialization strategies in cooperation with competence center,
- The alpine tourism sector should transform into a sustainable, low-impact, eco-friendly tourism in respecting mountain areas carrying capacity in natural cycles and ecosystem services, in order to keep competitiveness in adapting to climate change challenges, helping in maintaining permanent populations in the mountain towns and villages, stimulating a growth that in turn attracts other business. New solutions would be provided in energy efficient buildings and structures, using low energy technologies in hotels and leisure complexes, and through sustainable mobility features in switching to public transport.

Cultural heritage preservation

Cultural heritage preservation must be one of the keys to institute and keep resilient socio-economic systems. Cultural heritage ranges from traditional knowledge in adapting to heights, handcraft expertise, to the conservation of historical vestiges, sites, markers, monuments, figurative arts (villages, buildings, churches, paintings) and typical architecture features.
Keeping the diversity of languages and dialects spoken in remote areas and gradually dying out as much as cultural practices related to food heritage, traditional knowledge on production techniques, consumption customs and rituals and the transmission of ancient wisdom are all elements of the identity awareness construction process.

3. Governance pillar

Transnational cooperation and policy- making

The Alpine area is composed of territories with contrasted demographic, social and economic trends and a great cultural and linguistic diversity. This diversity goes along with a great variety of governance systems and traditions. Both the common specificities of the Alpine area and its variety and diversity addressed to common challenges call for strengthened cooperation to achieve economic, social and territorial development and offer a wealth of opportunities for addressing problems solutions at the appropriate governance level. Alpine Convention provides a platform for the development of a joint framework for an Alpine mountain policy in order to set up common approaches, transnational instruments and regional cooperation beyond national borders. The EU Strategy for the Alpine Region (EUSALP) aims at further expand cooperation and coordination between the Alpine regions within strategic priorities such are competitiveness, prosperity and cohesion, accessibility and connectivity for all the inhabitants of the Alpine area in terms of transport systems and a better digital network and promotes common strategies against natural threats and common programs in the field of renewable energy and energy efficiency. EUSALP aims at providing significant inputs through its Action Groups relevant for the Alpine Convention thematic areas.

Participatory processes and local political perspectives

Bottom-up governance, through the promotion of participatory processes, involving various population target groups, allows to successfully identify and implement integrated solutions at different administrative levels. New participatory processes for young people should be promoted besides the Youth Parliament Alpine Convention which is a platform for cultural exchanges and networking among young people from different regions to discuss current topics regarding the Alpine region in a parliamentary simulation.
Participatory processes would be a way to profitably involve young people in order to foster self-determination, and action taking in a political refreshment perspective, both in institutional and civil societies contexts and in arising identity awareness towards the achievement of new societal values for alpine areas.

Funds and cooperation tools incentives

In order to promote UE policies application at the local level, would be useful fostering the access to several European funding programs, in order to boost competitiveness, social cohesion and development of the alpine area, especially by young people. Vocational schools should promote in their curricula competence, training bases in EU project designing and making.

Operatively...

Teachers and educators should work with school/class/ group of learners in the creation of educational local tailored project in:

- Setting project goals on the basis of the local action plans, on local community claims and with the help of group of experts to gain information about the status of local territory, its trends and the possible actions that should be enhanced for the future
- Reference of local most representative issues and project goals to Sustainable Development official international goals and elect material and technical documents from international organization correlated to SGDs achieving a number of information
- Adopt a thematical structure of the project based on the branched feature of alpine key SD issue (environment, society, economy, governance) and their sub-topics being sure to represent different thematical aspects in the same project and openly showing their connection, as suggested in the ASM contents. Find the Alpine key sustainable development issues, in Alpine School Model document Annex 1 and following indications
- In planning use the Unity of learning form suggested in Alpine School Model document - Annex 6

Par. 4 - ASM third element: How to deal with values in educational activities?

The third of the ASM criteria attains at the clarification of possible sustainable development values underlying educational activities. It is important to broaden the common meaning of value as indicators of economic value, including in its cognitive elements, functional aspects and social and ethical values. Values, in particular, represent our guiding principles, our broadest motivations, influencing the attitudes we hold and how we act (Holmes et al. 2011).
Values are the way to promote individual learning and the key to enhance a positive shift toward behaviors: understanding is just the first step and not enough to motivate meaningful positive changes in attitudes and behavior and recognize the importance of values and which values we wish to support through educational work is determinant to intervene in the alpine sustainable development.

Operatively...
Teachers and educators should assist class/groups of learners in clarifying their starting values and how to undertake a process of sharing ultimate means and values for their ESD-MoE project.

- it is suggested to outline the class/group of learner map of individual and shared values
- to a class/group of learners can be proposed a discussion on what values could be needed from our local community and context. Values underlying sustainable development in alpine area can be focused as on following:
- Cohesive and cooperative communities: (Benevolence, security, conformity, Universalism, equality, helpful, self-discipline)
- Preservation of traditional heritage: (Tradition, wisdom, security)
- Protection of natural landscapes and cycles: (protection of nature, security)
- Sustainable economy, innovation and social-entrepreneurship: (achievement, power, universalism)

Par. 5 - ASM fourth element: Setting competences and skills and their assessment

It is important to suggest to youngers tools to gradually increase understanding on their daily life environment: being equipped with knowledge and skills to enhance the alpine sustainable development, allow them to devise sustainable living way into their communities, contrasting unsustainable practices, recognizing and realizing their own ability to act for positive changes in a competent way.
ASM indications encourage an aware acquisition of transversal SD competencies, skills and knowledges, within the integration, in the formal education planning, of the European framework of "Key competencies for lifelong learning" (2006), some competencies provided by non-formal context and life experiences, such are some of the SD competencies which refer to the UNESCO proposal.
How to plan in line with competences? The ASM indicates some strategic and operational insights.

Operatively...

- SD competencies can be introduced in the lessons and activities planning according to SD knowledge, skills and attitudes schemes and connected to formal competencies, using the flexibility provided by your present national curricular planning, in using the enclosed schemes.
- The Alpine School Model aims at helping schools and non-formal organizations in SD competences planning by offering operational support within the description of the 7 suggested sustainable development competences (table XX) and splitting them in their components which are skills, knowledge and attitudes, as shown in table XX.
- Alpine School Model indicates to organizations involved in non-formal educational and to schools to plan their learning activities employing the same SD skills and knowledges suggested for the formal educational planning in schools, setting in this way a common language to plan, implement and more easily evaluate project performances: the new is that to educational organizations is asked to provide their project offers in respecting the same structure proposed to schools, making explicit the SD Competence requirements.
- In ASM documents, teachers and non-formal educators can find some tips for the evaluation of the acquired SD competences during the projects or the educational activities.

SD Competencies							
Competencies	Anticipatory	Normative	Strategic	Collaboration	Systems Thinking	Self Awareness	Integrated Problem - Solving
Knowledge → Learners know	• Information and data about plausible local area future multiple scenarios– possible, probable and desirable • Analysis approaches • Timescales relevant to the problem and possible solutions • how to evaluate possible impacts	• Concepts of justice, equity, social–ecological integrity, Ethics • UE, national and region al regulations • funds resources and opportunities for development	• concepts and methods for strategy building • viability, feasibility, efficiency, and efficacy of systemic interventions, and the potential of those interventions to produce unintended consequences	• how to use Communication tools • How to use participative and cooperative methods - functional values regulating social cohesion in local communities	• alpine key sustainability issues, their causes and consequences • actions, interests and mandates of key stakeholders in the problem constellation	• different role for Sustainable development in the local community and global society	• different problem-solving frameworks related to sustainability • inclusive and equitable solution options • ICT and Technologies to foster Sustainable Development
Skills → Learners are able to	create one's own visions for the future: • structure uncertain information about the future into plausible future multiple scenarios– possible, probable and desirable; • apply the precautionary principle • possibly previously evaluate the consequences of actions and how to prevent undesirable ones	• gradually recognize the meaning and applicate norms and values underlying actions, • negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interest uncertain knowledge and contradictions.	• use learner-centered methods for designing, implementing and adapting SD actions in the local communities, and to deal with risks and changes.	• collaborate with others and learn from others • understand and respect the needs, perspectives and actions of others (empathy); • understand diversity especially those related to cultural and social aspects	• recognize and understand relationships in complex systems • analyze how systems are embedded within different domains and different scales	• reflect on its own values and personal bias • be aware in its own role in the local community and society • evaluate and further motivate actions feelings and desires	• think about a problem critically • apply problem-solving approaches and develop viable, equitable solutions • facilitate collaborative and participatory approach and to deal with conflicts in a group; • adapt Physical skills to mountain performance requirements (sport and leisure)
Attitudes →	• Accept the responsibility of actions and choices done	• Be open to other opinions	• Be committed to integrity and ethics. • Be open to varying perspectives. • Be willing to act despite inconclusive or incomplete information	• Embrace diversity among cultures and social groups	• Think Global act Local	• Be active in the environment • Deal with one's feelings and desires	• Be open to varying perspectives

Table 4- Detail of the SD competences structure (knowledge, skills, attitude) – Adaptation of G.Silvius by FLA

Par. 6 - ASM fifth element: Setting didactical contents within cross-curricular approach

School systems frequently divide contents in line with different subjects, decreasing the level of interdisciplinarity, is formally linked to rigid structure and constraints represented by regulations of normative and the school curricula and need to be supported and led to acknowledge and foster cross-curricular experiences.
Alpine SD key issues complexity and interconnectedness allow learners to increase the demand of required disciplinary knowledge viewing it from different disciplinary perspectives (environment, society, governance), showing their multidimensional character and interconnections and relating the SD issues to basic knowledge of multiple learning areas and contents including those topics in the school basic subjects.

Operatively...
Teachers can find didactic categories for the alpine key SD issues translated in the different school subjects and disciplines in order to develop basic and complex knowledge and to understand how to deal with specific school grades: to help this, in the Alpine School Model documents are presented relations between SD topics, formal learning areas and school subjects within the specific curricula.

Help yourself with the Alpine School Model document Annex 2) and the examples of interdisciplinary non-formal interventions provided in Annex 4)

Par. 7 - ASM sixth element: Setting learning environments- strategies, methods and techniques

The fifth of ASM criteria is oriented in soliciting the adoption of adequate methodologies and strategies that favor the acquisition of previously indicated SD knowledge and skills.
Educational interventions, in order to integrally allow the acquisition of SD competencies, need integration with physical, emotional and mental dimensions. This is how, within ASM indications, it is suggested to adopt, in the teaching and educational process, the employ of integrated methods and techniques under the utilization of a learner-centered and cooperative approaches and strategies.
In the following, frames and examples of some approaches and methods are reminded.

Teaching methodologies should be learner-centered

A very important principle which underlies the ASM approach Is that education is for everyone, but the way we deliver education—and the way students receive it—is not the same for everyone. For this motivation ASM reflection is oriented to provide learner-centered strategies.
These approaches, using a variety of methods, reveal something new to the learners, raising the sense of curiosity and sensitivity: the motivation of learning comes from the need and the desire to know more about the world around. Methods suggested in the following provide a good chance to exercise with their surrounding reality, are flexible to meet in multiple ways the needs of learners, flexible and applicable to different contexts from school institutions to non-formal contexts, included outdoor experiences.

Operatively...
To allow the acquisition of Alpine SD competences, the integration of physical, emotional and mental dimensions is needed: methods based on a learner-centered approach and Outdoor educational techniques ensure the emotional involvement, physical performance are suggested in the Alpine School Model document Annex 3

EBL, EAS, Flipped Classroom and Cooperative Learning presentations are provided in ASM Annex 3, with their tools for application. Teachers and non-formal educators should choose and implement suggested learner-centered methodologies and outdoor activities mixing cognitive, emotional and physical methods.

Methods suggested in the following provide a good chance to exercise with their surrounding reality, are flexible to meet in multiple ways the needs of learners, flexible and applicable to different contexts from school institutions to non-formal contexts, included outdoor experiences.
Most of SD skills are very complex to be acquired and requires the use and application of different techniques and tools: today's students are digital natives and they can achieve learning goals by using new technologies and doing field experiences complementarily, this in according to UNESCO Education Strategy.

Games represent an important strategy to acquire knowledge in a learner-centered way, because students are more likely to get interested in and focused on issues in a playful way. Activities may adopt games cards, game box, or digital games suggested in Chapter 5. Games can be also teaching techniques and can be represented from the following example. The class can play a role game in which students interpret different stakeholders involved in management of protected area, tasks and resources. The game consists of a discussion in order to achieve common decision regarding different issues (i.e. forest management future, governance of river restoration, policies for land use etc.). Through arguments adoption, the learner will experience the importance of fair negotiation for the community well-being and the existence of eligible different points of view.

Outdoor education activities

According to SD competence approach, learning is a process of personal integral development that links to the cognitive, physical and emotional level. Teaching methods can be, in their application, focused mainly on one of these levels but have ultimately to abridge all other dimensions.
Outdoor education activities can benefit from learner-centered methods and strategies previously introduced and integrate all human dimensions: educational activities need the media of body, movement and adventure to get involved in natural spaces. In outdoor experiences, well prepared in school cross-curricular classes, developed also in an interdisciplinary way within the non-formal organization cooperation, learners would have all the information and resources useful to improve their knowledge and connect it in an integral way with the emotional, cognitive and physical aspects during their educational paths.
A kinesthetic element with the medium of the body, enjoying physical movement and the group's practical activities, benefit the development of the brain and sensory systems. Physical skills needed to ensure the daily life in mountain areas need adequate training and exercise in order to achieve the needed level of performance both for professional and private life. Special training projects in mountain physical skills as mountain biking, hiking and skiing, canoeing, orienteering will be encouraged through the ASM educational suggestions and indications, promoting every year a-week residential class to allow every student to acquire adequate increasing competences.
Working on senses, exploration and adventure activities, sense of the challenge, the risk and the scouting of possible solution of survival plus the emphasis on emotional and psychological aspects, are ways to possibly reach the development of collaborative and self-awareness competences.
Methods which emphasize the affective dimensions are the core element of learning: there are evidence from scientific studies that contact with nature brings to more balanced emotional feelings. According to the Theory of Biophilia (Wilson, 1984), we have an innate emotional affiliation with other living organisms and that we are evolutionarily predisposed to feel happy and function more effectively in a natural environment. Emotion-based learning, guided discovery, visual imagery, storytelling also digital, scenarios and case study held in natural context can better lead to obtaining self-awareness competence and personal development. Storytelling can be used in any setting, having the potential to engage a reflective mood and help to understand and make sense of our own narrative. The story may be personal, contemporary or archetypal, depending on the context. The use of ritual can be used to mark transitions and boundaries between reflective time and action time: might be as simple as lighting a candle, reading a poem, stressing the passage of seasons, or of the different moments of the day. Artwork in nature or the use of photography are very effective activities to develop emotional work, using in the same time senses, emotional ways and physical skills.
A very important indication of the ASM is the invite to use the territory as a resource valorizing equipped natural spaces and places (equipped streets and paths, cycle paths, shelters, educational workshops in the mountains, etc.) for educational activities.

Par. 8 - ASM seventh element: Improve governance potential - take an action!

Positive emotions play a big part in learning and transferring complex knowledge and skills, anchoring them into real daily life of students, enhancing the capacity of promoting change. Once understood a problem, learners could translate them in adapting their thoughts, emotions, knowledge, actions and physical being of the individual person. ASM indications are intended to encourage an active transfer of the acquired knowledge and skills to the learner's own life and community. All the acquired knowledge and skills can help in performing positive and concrete actions for sustainability. The fall out of our choices and activities on economic, political, cultural and social dimensions start in the communities and smaller, local society which are the places where learner themselves are living with their families, friends and neighbors. On this level young citizens have the best chance to take actions for sustainable development. An active engagement can be experienced by youth both in participating in the decision-making processes or conversely in implementing concrete actions. These two approaches can follow different steps and require to learner different skills. The participation of youth in decision-making processes can inspire innovative government policies, encouraging them to articulate their concerns and in contributing to build peaceful and democratic societies. In engaging an active path on participation to shape local or global governance with their advices, youth learners should first of all acknowledge the level of suitable options, in terms of normative availabilities which recognize the right of citizen to express their opinion, and the opportunity represented by decision makers openness and interest in welcoming their contributions (Shier, H. 2001). Other possible paths relate to the concrete engagement that can introduce young people to safe and accessible mechanisms for challenging key strategies, in taking informed decisions on real life sustainability issues or in working together actively and in involving their communities in collaborative solutions, to examine their assumptions, knowledge, and experiences, in order to develop critical thinking, and to be open to change, or to be aware of cultural practices as an integral part of sustainability issues.

Operatively...

In building a participative path for youth is to be informed about project practices running in the Alpine space territories. Teachers and non-formal organizations are, for example, invited to find out how other alpine similar contexts and local situations area are treating alpine key SD issues. Awareness on projects and educational experiences going on should encourage the promotion of twinning projects with schools and non-formal organizations located in other alpine areas. An operational support is offered through the ASM Toolkit – Alpine School Model App, which offers, in the governance section, resources which provides information about educational opportunities, natural and cultural heritage resources, on the websites and with the use of toolkit. Within Alpine School Model App functions users will be able to provide comments on activities done, on places in the Alps they visited and giving information about cultural heritage, traditions, sustainable communities and Alpine green economy, through uploading pictures and small texts or emoticons of their educational activity. In this way we would encourage story telling on the experiences and discovers they did and the App should become a sort of digital Atlas of educational opportunities and practices.

Participative approach can be experienced within the use of role games in which learners could simulate real conditions and test their acquired skills in a protected way. In the Toolkit Chapter (n.5) are presented several examples of the role games with different aims and tasks.

In order to promote the active transposition in real life, learner could also be invited in experiencing school-oriented "governance" tasks, in relation to their age, such could be the following:

- Primary school= change individual and familiar daily life, small groups of friends
- Secondary 1 grade = actions in school and community situated occasions (local decision makers institution)
- Secondary 2 grade= actions in community either within school or private initiatives (policy makers, local communities, global community)
- VET = Green jobs professional life

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