Workshop
Experiential orientation in Sustainability Education

Environmental Management System for Schools
Event Management for Sustainable Development

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Possible Workshop Subjects

- Agenda 21
  - Implementation of Agenda 21 in a Community
  - Local Agenda 21 in Aalen
- Cooperation
  - City of Aalen and Aalen University
  - Cooperation
  - Student´s Projects
- Experiential Orientation
  - Event Management
  - Events for Education for Sustainable Development
- Environmental Management System for Schools
  - The Environmental Management System
  - Peer Review

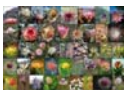
Sustainable Development

- World Commission on Environment and Development, 1987
  "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
- Agenda 21
  - Rio 1992 declaration
  - Sustainable development
    - Economic
    - Ecological
    - Social
- World Summit on Sustainable Development Johannesburg, South Africa in 2002

Sustainable development

- Brundtland Definition:
  - other people (intragenerational justice) and
  - future generations (intergenerational justice)
  - can fulfil their needs.

- Sustainable development is an ongoing process
  - evolution of the earth (including all natural or cultural subsystems)
  - influenced (in the positive and negative sense) by mankind.
- Several concepts support sustainability but are not ends in themselves:
  - stability, conservation,
  - diversity,
  - efficiency,
  - responsibility,
  - caution.



Agenda 21

- The Rio declaration Agenda 21 is aiming to improve the social, ecological and economical status of the World and to fight the ongoing deterioration in these areas
- Humanity stands at a defining moment in history.
  We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being.
  However, integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future.
  No nation can achieve this on its own; but together we can - in a global partnership for sustainable development.

Education for Sustainable Development

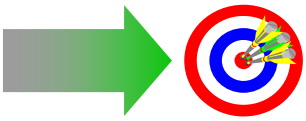
- Sustainable development is an ongoing process
  - evolution of the earth (including all natural or cultural subsystems)
  - influenced (in the positive and negative sense) by mankind.
- Several concepts support sustainability but are not ends in themselves:
  - stability, conservation,
  - variety, diversity,
  - efficiency, effectiveness,
  - responsibility, caution

Education is the key to Sustainable Development

Local Agenda 21

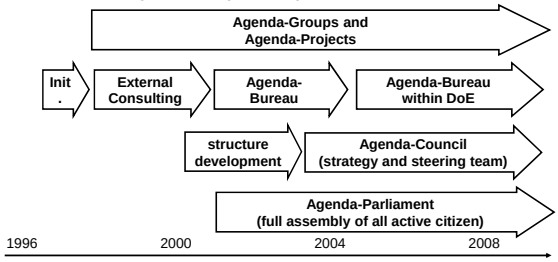
- Chapter 28:
  LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21
- 28.2. (a)
  By 1996, most local authorities in each country should have undertaken a consultative process with their populations and achieved a consensus on "a local Agenda 21" for the community.

- The Local Agenda 21
  - A paper
  - An aim
  - A project
  - A continuous process



Local Agenda 21 in Aalen

- Citizens engagement and support from administration
- Core Elements: Agenda-Groups and Agenda- Parliament



Agenda-Parliament

- Twice a year
- Participants:
  - Members of all agenda groups
  - Representatives from the city parliament (all parties)
  - Administration Lord Mayor Mayors
  - Interested citizen
  - Representatives of the press

Agenda-Groups more than 60 Projects

- ...

International activities

- Partner cities:
  - Antakya
  - Christchurch
  - Saint Lo
  - Tatabanya

  - Email contact to partners via Tourist Information

- One World shop, Govinda
- Sports clubs, Churches, Parties, Unions, Round Table: partnership with Christchurch

International partnerships Antakya

- Visits between Aalen and Antakya on a regular basis
  - Outgoing 200 +
  - Incoming

- Support for the association for handicapped people
- Cooperation with the human right organization IHD in Antakya
- Contacts with environmental, religious, political and cultural groups
  - Dance of the culture
- Exchange of learners from schools
- Contacts between HTW-Aalen and Mustafa Kemal University
- Guides: “Reiseführer Antakya” “Antiochien am Orontes”

Support for sustainable economic development

- Sustainable development needs also an economic development.
- On a local basis this means to
  - support local industry, business, enterprises and start-ups
  - provide area management
  - foster contacts among each other and with external competences
  - provide space for start-ups
  - develop the structure of stores in the city centre to ensure the survival and diversity of shopping opportunities and the attractive city centre
  - support local market and regional products
  - provide support, from the university or Steinbeis transfer centres
  - educate engineers and entrepreneurs

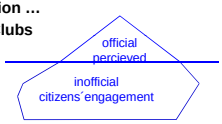
Aalen City aktiv

Further Activities towards Sustainable Development

- Aalen City Administration
  - Energy
    - Consulting and controlling of energy consumption
    - European Energy Award 2007
  - Environment
    - Landscape planning and biotope networks
    - Concept for climate protection
  - Social Sustainablility
    - Gender and Demographic issues
    - Security feeling, ISA
- Girls/women and science/technology
  - Project AAUAS with Aalen City
  - Girls´ day

Citizens´ Engagement in Aalen

- Honorary Engagement is wide spread in Aalen:
- More than 300 clubs and associations registered on www.aalen.de
  - More than 90 sports clubs with in total more than 30 000 members
  - More than 100 culture-oriented clubs
  - A lot of supporting associations in education …
- Churches, Political Parties, Unions, Service Clubs
- Citizens´ Engagement within the Local Agenda 21
- A lot of informal engagement specially neighbourly help
- Excellence in all activities – in the profession or in honorary work – is an important way of engaging for the benefit of the community



Aalen University

- Sustainability and Environmental protection in all faculties and courses
  - Recycling, Renewable energies
  - Sustainable Development, Regional Marketing
  - Quality and Sustainable Development: Module in Industrial Management Project of the UN decade for ESD
- Senate´s delegate for Sustainable Development
- Kid´s university Ecology and Energy
- Studium Generale: Ethics and Sustainability
- Participation in
  - Information days on energy
  - Local Agenda 21 groups
- Students´ projects

Nachhaltigkeit lernen
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Sustainability Events

1998–2008 21 lokale Agenda Aalen nachhaltig erLeben

- Experiential learning is an important means of Education for Sustainable Development. The most typical example is the series of projects “Aalen nachhaltig(er)leben” on the occasion of 10 years of Local Agenda 21 in Aalen.
- Le communication base aux expérience est un outil importante pour le éducation pour un développement durable. Le exemple plus typique est le séries des évents sur la titre «Aalen nachhaltig(er)leben»
- Erlebnisorientierung ist ein wichtiges Werkzeug der Bildung für Nachhaltige Entwicklung

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Experiential orientation in ESD

- Concepts of event management:
  - Address people emotionally
  - Plan events carefully to ensure success
  - Activate and involve participants
- Experiential learning
  - Learning in an activating setting
  - Involvement of learners
  - Prepared and planned situation
  - Rational and emotional aspects
- Examples:
  - „Aalener Jugenddreieck“
  - „Aalen nachhaltig(er)leben“
  - Forest paedagogy

Aalen nachhaltig er Leben

- Aalen nachhaltiger leben
  = live more sustainable in Aalen
- Aalen nachhaltig erleben
  = experience sustainable Aalen
- 2008-09
- Programmes for each quarter
- Holistic impression Experiential learning Events for Education for Sustainable Deveopment

1998–2008 21 lokale Agenda Aalen nachhaltig erLeben

1998–2008 21 lokale Agenda Aalen nachhaltig erLeben

Nachhaltigkeit lernen
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Experiential orientation four the young

- Aalener Jugenddreieck:

A triangle of
- Technology and science
  - Labs of the university
  - Presentation on ecology and energy
- Sustainablility
  - Presentation on ecology and energy
  - Forest paedagogy
- Sports
  - Hockey

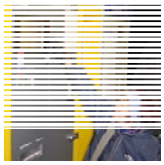
Experiential orientation four the young

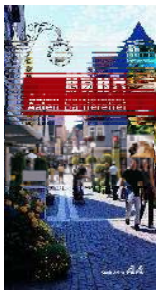
- Technology and science
- Sustainablility
- Sports

Agenda Group for renewable resources and energy saving

- Informationstage Energie – Energy information days
- Every year in February Organised by the Local Agenda Group
- Exhibition + presentations

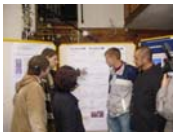
Aalen for all – Barrier free





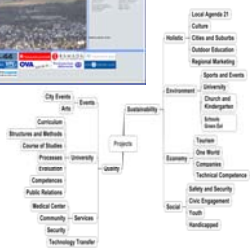
Day of the region and regional marketing

- Aalen 2006, 2007, 2008 ...



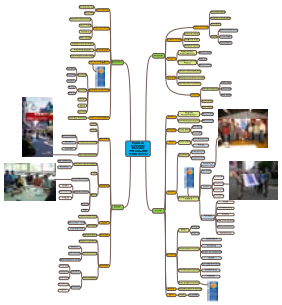
AAUAS - WIW
Project Examples (1)

- Course on Engineering Management
- Modules
  - Project Management
  - Quality and Sustainable Development
- Example: Information on sustainability and regenerative energies at Aalbäumle tower



AAUAS - WIW
Project Examples (2)

- Support of projects on
  - Green Eel EMS
  - Experiential orientation in ESD
  - Regional marketing
  - Aalen for All / barrier free
  - Energy information
- Analysis of public transportation for students (semester ticket)
- Analysis of special places and special groups with respect to security feeling and crime prevention
- Analysis of alcohol consumption and sales as a contribution to prevention
- Analysis of special events
- Quality and Excellence



Steinbeis TC Applied Management
Sustainability and culture

- Steinbeis Transfer Centre at Aalen
- Three women as a role model
- City of Giengen/Brenz
- Sustainability and culture
- Project of the UNESCO Decade ESD

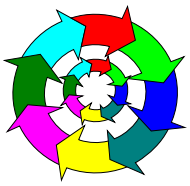
event

- event and event management
  - safe and secure and successful implementation of an event ,
  - added value of an emotional experience and uniqueness.

conceptual strategy : event + added value	successful implementation: project + process
event development	event sorganisation
ressources, framework, conditions, infrastructure, logistics	
project management, management, phases, conceptual strategy	

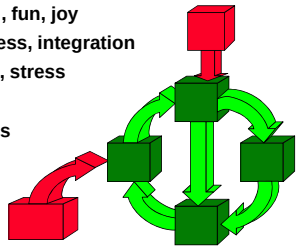
What makes an event?

- Subjective individual and common perception
- moments emotional experience, memorability
- positivity, good/well feeling/emotion
- group/team emotional experience
- symbols, feeling/emotion
- activity, activation, action
- uniqueness
- I/me vs. we/us
- connection of impressions and symbols
- multiplicity of experience, media and perception



How to make an Event?

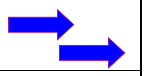
- perception
- planning/ mise en scene, design, schedule /script
- event, experience, feeling, fun, joy
- relation, emotional nearness, integration
- activity, activation, action, stress
- emotion, euphoria
- multiplicity of impressions
- brand, notions
- added value, plus
- multiplicity



Event planning - strategy and development

- Target group - Who will be adressed?
- Target: what do we want to achieve?
- Public: how to inform? How to implement public relations?
- What kind of event should we implement?
- Time: when shall the event take place?
- infrastructure: what muss be prepared on stage/ site
- Organisation: how do we achieve that?
- Participants: Who should participate/ be invited?
- Budget: how much are we allowed to spend?
- Plan: how should everything happen?
- Invitation: how shall the target group be informed?
- logistics: transportation of material, goods and persons,
- Staff: Who will contribute?
- Location: Where shall the event take place?
- Catering: eat and drink
- EHS law, taxes
- const: financial regulations / responsibility

Event management

	Vision, design, creativity	Plan, project management	Implementation, organisation, actitvity, controlling
The surplus: experience			
The usual			
Safe and secure (risk)			

Green Eel

- The “Green Eel” (Grüner Aal after the eel in the coat of arms of the city of Aalen) is an environmental management system especially adapted to schools
- Le «Aiguille Vert» (nomine âpres l´aiguille dans le signe héraldique de Aalen) est un système de management environnemental spécialement pour les écoles.
- Der Grüne Aal ist ein speziell auf Schulen ausgerichtetes Umweltmanagementsystem.

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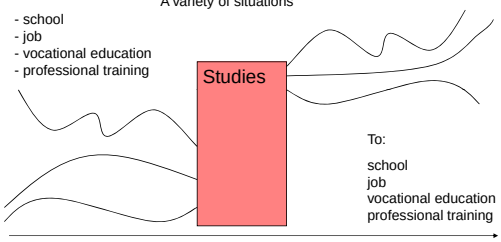
Lifelong Learning - Implication

From:

- school
- job
- vocational education
- professional training

A variety of students
A variety of situations



To:

school
job
vocational education
professional training

Green Eel

- Project of the UN Decade Education for Sustainable Development 2006-07 und 2008-09

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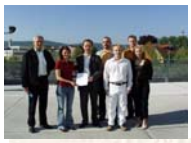
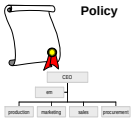
Green Eel – Concept development and Implementation



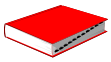
Core Elements of an Environmental Management System



Policy

Organisation

Education



Documentation

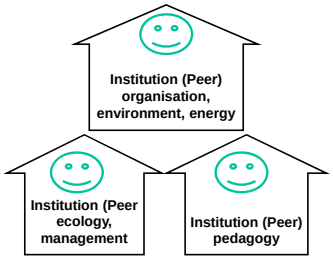
Training

Programme, Projects, Aims

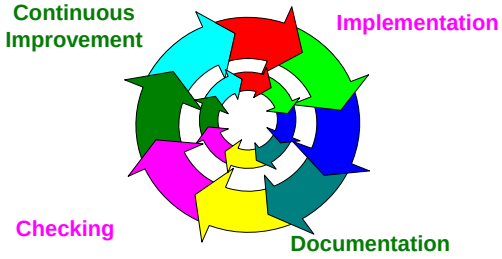
Assessment and reduction of environmental impacts

Peer-Audit

Peers integrate various competences and aspects

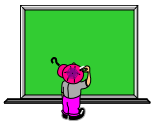


Environmental Management System Model

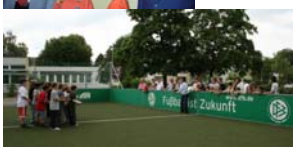


Competences

- Facts
- Knowledge
- Problem solving competence
- Social Competence
  Intercultural Competence
- Personal Competence
- Ethical Competence



Green Eel



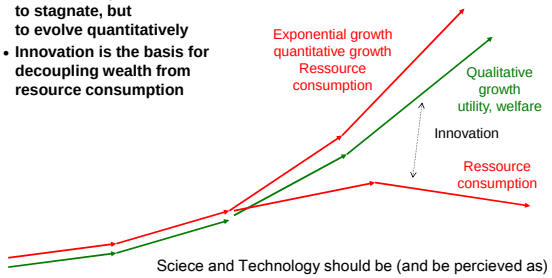
Green Eel

Science and politics – two separate worlds?

- Science is based on facts
  - objective data
  - reproducible conclusions
- Political decision making is the art of the feasible
  - governing body
  - majority decision

Sustainability and innovation

- Sustainability does not mean to stagnate, but to evolve quantitatively
- Innovation is the basis for decoupling wealth from resource consumption



Sciece and Technology should be (and be percieved as) the solution and not the cause of the problems.

Community and University

University Departments

City
County
Region
Land

Administration
Agenda 21
Police/ Security
Environment
Schools

Staff
Students

Experiential orientation four the young

- Aalener Jugenddreieck
  A triangle of
  - Technology and science
    - Labs of the university
    - Presentation on ecology and energy
  - Sustainablility
    - Presentation on ecology and energy
    - Forest paedagogy
  - Sports
    - Hockey

Experiential orientation four the young

- Technology and science
- Sustainablility
- Sports

The only thing more expensive than education is ignorance

Benjamin Franklin

The Prepared Project Method (PPM)

- treats projects like planning games makes it possible to carry out projects that have a real-life training effect for the students, excellent chances of success, and a positive impact on community development and on the public perception of the university. Moreover, students from several semesters participate in each individual project, which gives additional challenges and chances for students and project partners.

Projects

- give students not only insight and knowledge; they also show to academia and to the public that students can support quality and sustainability in a variety of aspects in industry and community. To achieve these goals, projects must be prepared carefully and cooperation with partners must be sought and cultivated.

Projects in the Curriculum

- **Bologna process**
- **B Eng**
  - **Project**
  - **Quality and Sustainability**
  - **Computer Science Project**
- **M Eng**
  - **Engineering Mangement**

Projects

- **Empirical Background: own projects**

• **Theses**	**25 Y**	**400**	**200 PY**
• **Industrial projects**	**20 Y**	**20**	**20 PY**
• **Classical students´ projects**	**15 Y**	**200**	**30 MY**
• **Prepared project method**	**5 Y**	**200**	**50 MY**

Planning Games

- **Planning games**
  - **Well prepared**
  - **Skript**
  - **Plan**
  - **Risk minimisation**
  - **Decision oriented**
- **Prepared Projects Method**

Planning Games and Projects

Aspect	Planning game	PPM
Model	The learning situation and decisions cannot take place in reality.	Planned projects are selected prototypes of projects. By means of intensive prepa-ration, the risk is reduced
Decision	The decision aspect is crucial for management, planning games and projects	
	The decisions and their consequences stand in the foreground.	Decisions are necessary to achieve the goals
Dynamics	The learning situation is embedded into a dynamic and changing scenario	
	Dynamics are implemented by a software, script or trainer.	Dynamics are given by the project phases and the evolution of the project
Didactics Pedagogy	The planning game and the planned project have a purpose in training and education. They are adapted to a specific training situation and must be adapted to the situation and guided by an experienced supervisor or trainer.	
Effect	Training oriented (no impact on reality)	Outcome and education oriented

Model

- The learning situation and decisions cannot take place in reality.
- Planned projects are selected prototypes of projects.
- By means of intensive prepa-ration, the risk is reduced

Decision

- The decision aspect is crucial for management, planning games and projects
- The decisions and their consequences stand in the foreground.
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Dynamics

- The learning situation is embedded into a dynamic and changing scenario
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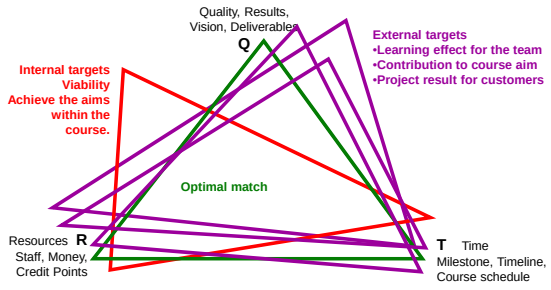
Didactics

- Pedagogy The planning game and the planned project have a purpose in training and education. They are adapted to a specific training situation and must be adapted to the situation and guided by an experienced supervisor or trainer.

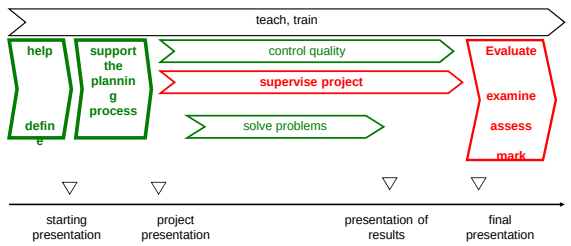
Effect

- Training oriented (no impact on reality) Outcome and education oriented

The Triad – The Magic Triangle of Project Management



The Roles of the Supervisor



PPM Schedule Overview

week	
-110	Collect ideas and get into contact with potential projects partners
-105	Plan the long term projects (more than one year) Contact potential project partners
- 55	Plan the long term projects (one year or less). Contact potential project partners
- 30	Define series of projects for one or several semesters
- 14	With the previous semester's project finalisation ideas for subsequent projects arise
- 9	Select the projects for the forthcoming semester
- 8	Develop a concise project understanding including scope and deli-ver-ables
- 7	Fine tune project with the projects partners, customers and sponsors.
- 6	Publish a preliminary list of projects to get feedback from the students
- 2	Adjust number and scope of projects according to the expected number of students
-1	Publish the formal project definitions including partners and preliminary aims.
0	Open the projects for enrolment.
+1	Adjust number and scope of projects according to the actual number of students
+ 2	Kick-off-presentations and internal project definition
+ 3	Teams get in contact with their customers and stakeholders. External project definition
+ 5	Project presentation (Project definition: aims, vision, deliverables, resources, schedule)
+ 8	Intermediate presentation (Project controlling)
+ 12	Final presentations for project partners
+ 12	Define subsequent projects
+ 14	Joint final presentation of all semesters and projects
+ 15	Press release on project+ 16 Regular due date for deliverables
+ 22	Planning for subsequent projects
+ 23	Final due date for deliverables
+ 24	Aftermath, improvement of materials, press release on project consequence
+ 26	Next generation of projects starts

PPM Schedule Preparation

week	
-110	Collect ideas and get into contact with potential projects partners
-105	Plan the long term projects. Contact potential project partners
- 55	Plan the long term projects. Contact potential project partners
- 30	Define series of projects for one or several semesters
- 14	With previous semester's project finalisation, ideas for projects arise
- 9	Select the projects for the forthcoming semester
- 8	Develop a concise project understanding including scope and deli-ver-ables
- 7	Fine tune project with the projects partners, customers and sponsors.
- 6	Publish a preliminary list of projects to get feedback from the students
- 2	Adjust number and scope according to the expected number of students
-1	Publish the formal project definitions including partners and preliminary aims.
0	

PPM Schedule Conduction

week	
0	Open the projects for enrolment.
+1	Adjust number and scope of projects to the actual number of students
+ 2	Kick-off-presentations and internal project definition
+ 3	Teams get in contact with their customers and stakeholders.
+4	External project definition
+ 5	Project presentation (aims, vision, deliverables, resources, schedule)
+ 8	Intermediate presentation (Project controlling)
+ 12	Final presentations for project partners
+ 12	Define subsequent projects
+ 14	Joint final presentation of all semesters and projects
+ 15	Press release on project
+ 16	Regular due date for deliverables

PPM Schedule Finalisation and Aftermath

week	
+ 14	With the project finalisation ideas for subsequent projects arise
+ 15	Press release on project
+ 16	Regular due date for deliverables
+ 22	Planning for subsequent projects
+ 23	Final due date for deliverables
+ 24	Improvement of materials, press release on project consequence
+ 26	Next generation of projects starts

Examples for cooperation city projects

- **City marketing and development**
  - **studies for city management**
  - **Status, image analysis, concept development**
  - **City Event Management**
- **Research on security feeling and causes of fear**
  - **population survey (15000 questionnaires, 4500 responses)**
  - **expert interviews**
  - **cooperation with police city administration**
  - **polls to test the validity and acceptance of the main survey**
  - **detailled analyses as a consequence**
- **Survey on the protection of juveniles from aclohol abuse**
  - **according to the law for the protection of the youth**
  - **Instruction of personnel al point of sales**

Lauchheim

Aalen 21 lokale Agenda

Quality and environmental management system

- The green eel – EMS for schools
  - Concepts and acticities instead of formalism: Peer auditing system
  - Development of criteria and handbooks
  - Support for implementation
  - Participation in Audits

Community and Tourism

- Barrier-free tourism
  - status analysis of Aalen City with respect to handicapped people's mobility.
  - Implementing a barrier free city as a contribution to tourism development

- Regional Marketing and development [illegible] brand
  - "green tours" to promote local tourism and direct marketing for farmers
  - Regional brand and Virtual Regional Mall
- Regional Tourisms

Examples for cooperation Local Agenda 21

- Support of the youth newspaper edited by juveniles for juveniles
  - providing infrastructure and training
- Agenda Group for renewable ressources and energy saving
- Local Agenda 21
  - Initiation, Infrastructure
  - Support on structural decisions
- Industrial Environmental Manageemnt
  - Initiation of Auditing Convoi (for companies in a city)
- LA 21-Activities (schools, teachers)
  - Suburban development
  - Landscape protection
  - Networking for labour-seeking juveniles

Environment and SMME

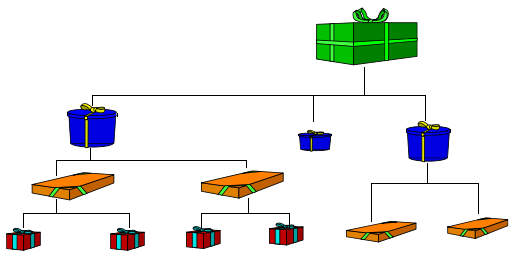
- Public transportation: Research for giving advice and initiating projects in private-public-partner-ship for improving public transportation (especially for students).
- Funding, marketing, management, environmental protection for sports clubs
- SMME
  - Study on skills and know-how needed by local SMME
  - Support for management, accounting and technological aspects for local enterprises, especially for SMME
  - quality and environmental management for NPO and SMME

Project Benefits and Problems

- Students Skills
  - Practical Problems, know the future political environment
  - Influence the decisions and future development
- Community/ Government benefits
  - Problems are analyzed and researched methodically, solutions they are assessed independently, future activities are analyzed holistically.
  - Projects that require specialized skills or planning competence are addressed. With a student's project, local authorities also buy into the skill and knowledge of the supervisor.
- Professionalism
  - mutual perception
  - professionalism vs. honorary work
- Competences of government and councils

Work Breakdown Structure

- Work packages



Project Benefits

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  - Practical Problems
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Project Problems

- Professionalism
  - mutual perception
  - professionalism vs. honorary work
- Competences of government and councils
  - Project Management
  - Setting Targets
  - Early Phases
- Funding

Success Criteria

- Students Skills
- Professionalism and mutual trust
- Stakeholder analysis and communiation
- Careful preparation