

“Challenges of Sustainable Development”

GROUP 1 PROJECT  
**UNIVERSITY AND SUSTAINABLE DEVELOPMENT**

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## **INTRODUCTION**

The aim of this project is to propose a general model for implementation of sustainable development solutions for different aspects of university activities, applicable to any kind of higher education institutions.

Therefore we will not concentrate on any particular university but will describe a general solution and give some particular examples to illustrate what could be done.

The project consists of several independent parts. The first chapter describes the background of our investigations, how and where we have gathered our information. Then we describe how a university should be organised and managed to comply with sustainable development rules. The next chapter characterises problems that may be experienced when implementing sustainable development solutions and describes ways to overcome them. Finally we focus on several selected areas of university life which we think are the most important and illustrate them with particular examples.

## **BACKGROUND**

Preparing this project we have based on our own experiences as students representing various kinds of universities. We have talked to people who have tried to implement some sustainable development solutions at Polish schools of higher education and we have also used available literature. Throughout the preparation process we have been aided and supported by Aleksander Noworol who provided us with some valuable advice.

## **VISION OF AN UNIVERSITY**

We consider an university as a unique place for implementing sustainable development concepts. Since the origin of this institution it has been looked at as a centre of innovative thinking and in modern times universities should act as centres developing, testing and promoting sustainable development ideas.

We have identified three main spheres of university activities which are crucial for its functioning and development. University can be considered as:

- ⇒ an educational and research centre,
- ⇒ an organisation regarded as space and people working and living there,
- ⇒ part of a larger (local or regional) community.

These are shown on figure 1.

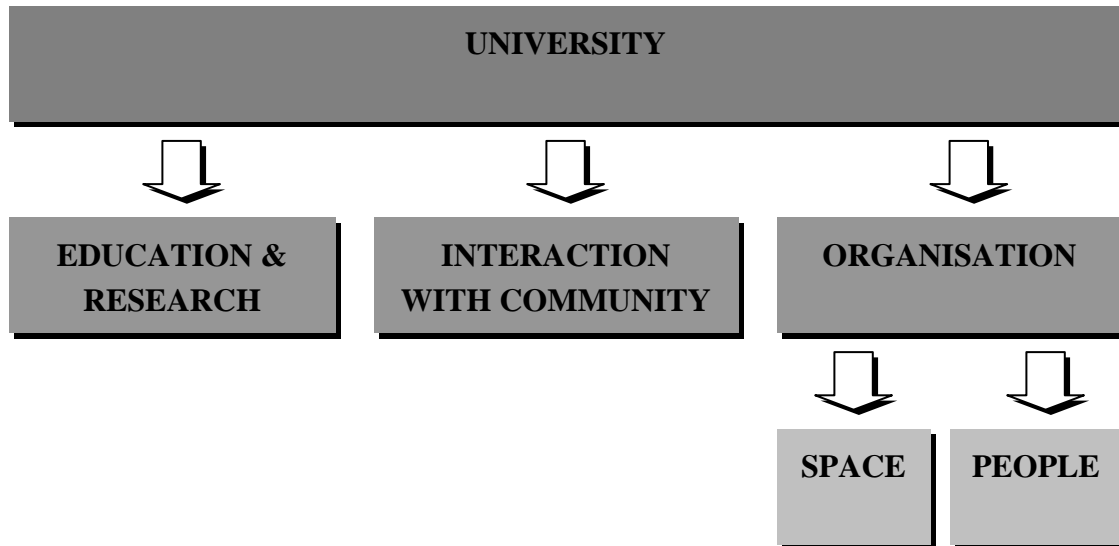


Fig. 1: Spheres of university activities

Below we present, what we consider to be an ideal way of university functioning in a sustainable manner.

#### **University as a centre of education and research**

The challenge of modern universities is to rethink the basic principles of education. Teaching programmes should include the rule that “all education is environmental education” [5]. Universities ought to ensure that all their teaching staff and graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens. The content of learning syllabuses must embrace an interdisciplinary, systemic approach in all disciplines being taught. We think that the process of education must focus on experimental learning and real-problem solving on the university and in the surrounding community.

The direction of research at an university should be directed at developing clean, resource efficient technologies with low environmental and social impacts.

#### **University as part of a community**

Universities play a vital role in surrounding communities. They provide essential services such as education, research, consulting and other. Because of the knowledge and expertise they possess, universities should act as third (expert) parties in local dialogue processes. They are an influential stakeholder and should take part in developing and implementing Local Agenda 21 programmes.

There has been developed a new concept of university interaction with local community. Cooperation between universities and nearby eco-industrial parks (EIP). EIPs are linking

universities to companies in the surrounding region as consumers or generators of usable byproducts via resource exchange and recycling networks.

### **University as an organisation**

When thinking of an university as an organisation, we have to look at it as a community of people working and living there such as administrative and teaching staff, students, workers and others, and as a particular place in space – lecture rooms, laboratories, dormitories, libraries, shops, parking lots, sport fields, recreation areas, roads, etc.

Thus it can be regarded as a microcosmos of human-environment relations and its functioning could mimic the cycles observed in nature - using waste as a recourse, energy efficieny, water conservation, compositng, recycling, reuse of recources, transportation, and so on.

University environmental policy has to encourage departments and other units to implement strategies to reform curricula, reduce wastes, conserve energy and preserve natural resources.

### **POSSIBLE PROBLEMS**

We consider the following to be the most acute problems which can be experienced at polish universities:

- ⇒ lack of appropriate knowledge,
- ⇒ lack of communication between various university units,
- ⇒ little cooperation between different faculties and units,
- ⇒ bureaucracy,
- ⇒ unclear competences,
- ⇒ lack of support by higher university staff,
- ⇒ lack of commitment and responsibility,
- ⇒ size and structure of the university,
- ⇒ finances,
- ⇒ conservatism and fear of the new.

These problems may occur all to some degree, just some of them or none at all, depending on the school we look at.

### **PROPOSALS FOR ACHIEVING A MORE SUSTAINABLE UNIVERSITY**

This part describes how sustainable initiatives can be started at an university.

#### **The beginning**

- ⇒ gathering together of environmentally aware people at an university (students, teaching staff, administration officers) willing to work on making university “green”,
- ⇒ start a scientific club working on sustainable development issues,

- ⇒ contact an organisation from another university already working on sustainable issues,
- ⇒ seek support and cooperation from higher university authorities,
  - ⇒ explain the importance of creating the post of coordinator responsible for overseeing future developments,

The club should then start a media campaign at a faculty, university promoting and explaining the importance of sustainable initiatives,

- ⇒ establish web site at an university server as the cheapest means of promotion,
- ⇒ use e-mail to inform student and teaching bodies about developments,
- ⇒ try to cooperate with university newspaper and radiostation,
- ⇒ start a leaflet and poster campaign,
- ⇒ start a “grassroot” initiative such as petition campaign to promote sustainable development and influence university officials,
- ⇒ organise a debate on current situation at the university.

### **The actions**

In case of friendly atmosphere towards sustainable initiatives at the university the following steps are possible:

- ⇒ establish a committee made of representatives from various university faculties, departments as well as other administrative units and student bodies for ...
  - ⇒ form a subcommittee responsible for reviewing current curricula and research project,
  - ⇒ formulate a vision of the university,
- ⇒ prepare and carry out an audit aimed at identification of possible fields of improvement,

Otherwise only intensification of “grassroot” initiatives described in the previous part and involvement of student community aimed at changing the general attitude of university authorities is possible.

### **“Maintaining the movement”**

We realise that the first two steps on the path to sustainability, described above, are the most difficult to achieve but are also crucial for the success of the whole enterprise. The next phase, presented below, is just a series of ideas whose implementation depends on favourable conditions at an university and persistence of interested parties.

- ⇒ Change of curricula to facilitate facultative and mandatory courses on ecological and sustainable development issues for various specialisations taught at an university,
  - ⇒ Courses should include real-life problem solving projects where students could look at the way the university (e.g. their faculty, campus or other units are organised) and propose ways of improvement, for example: waste disposal and

recycling, dormitory recycling, solar energy, water conservation, composting, life cycle costing and analysis, ecological design of buildings, ecological transport, office recycling, public education, food and goods purchasing policy, material resources, land stewardship, micro-scale labs, and others depending on the specialisation.

- ⇒ Syllabuses should also include courses where sustainability indicators could be developed and investigated.
- ⇒ Preparation of training courses and “cookbooks” with adequate instructions for university staff,
- ⇒ Cooperation with “green” business sector:
  - ⇒ Internships, establishment of eco-industrial parks, transfer of technology, consulting and preparation of expertises
- ⇒ Interaction with community:
  - ⇒ Information and advice center establishment,
  - ⇒ Open door days and workshops,
  - ⇒ Participation as an expert and stakeholder in Local Agenda 21 preparation processes,
  - ⇒ Collaboration with primary and secondary schools in the field of ecological education,
  - ⇒ Cooperation with ecological NGO’s

## CONCLUSIONS

“Whatever you can do or dream you can, begin it.

Boldness has genius, power and magic in it”

*Johann Wolfgang von Goethe*

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