


PREPARING UNIVERSITIES FOR THE FUTURE

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I shall convey three sets of messages

- It is a necessity to base economic and societal development on knowledge!
- The State (regional, national, supra-national) should create the right conditions for university development!
- Universities should work hard and well to improve and develop!

An aerial photograph of a snow-covered mountain range. A prominent, sharp peak is visible in the center, surrounded by smaller ridges and valleys. The snow is bright white, and the overall scene is serene and majestic. In the bottom right corner, a small, dark silhouette of a person is visible, looking out over the landscape.

I
It is a necessity to base
economic and societal
development on
knowledge!

Economic development is globally positive for any society!

- **At the level of society**, it raises the average standard of living of the population, contributes to the promotion of democratic values, social cohesion and cultural development
- **At the level of individuals**,
 - It diminishes the numerous hazards of life and their consequences (diseases, illiteracy, political or societal oppression,.....
 - It makes people less dependent on essentials and increases their possibilities to have a decent life and even with a lot of potential

Knowledge creation and diffusion is good for individuals and societies!

- Education has numerous functions in modern societies: intellectual and democratic training, acquisition of professional skills, knowledge production
- Investment in human capital is an excellent strategy
 - for individuals as it means higher salaries and lower risk of long term unemployment
 - for societies as it contributes to economic development
- The closer a country is to the “technology frontier”, the more profitable it is to invest in knowledge through HE/R
- Developing countries are in-between a model of technology adaptation (priority on secondary and professional education) and a model of scientific and technology innovation (priority on HE/R

The Impact of the rapidly changing environment is important!

- Causes of the rapidly changing environment
 - Globalization
 - Scientific and technological progress
 - In Europe, creation of the European Higher education area (EHEA) (=Bologna process) and the European research area (ERA)
- The consequences for societies
 - are multifold and even contradictory:
 - Acceleration of the rhythm of change
 - Increased **competition**
 - Greater necessity to **collaborate**
 - and impact on
 - Individuals persons
 - Private companies
 - Pubic institutions, even higher education institutions

There are also serious consequences for HE institutions!

- Demand (pressure) from all stakeholders for more transparency and better accountability
- Increasingly demanding private sector (professional training, LLL, focused programs and research)
- Increasing competition from new types of HE institutions:
 - Private for profit and corporate universities,
 - Distance and trans-border education, among others elite universities creating subsidiaries abroad)
- And, at least in the developed world, universities do not enjoy anymore unlimited trust

There are also serious consequences for research!

- The model of research and innovation is moving from a sequential to a “parallel” one
- Tendency of appropriation (privatization) of basic research findings due to increased private funding and/or private **basic** research
- It will become increasingly risky to live on others’ effort in basic research
- The cost of doing research is increasing rapidly; therefore, it is necessary to
 - Search for a critical mass
 - To collaborate with other teams and institutions (for ex. CERN, joint research projects)

The background of the slide features a high-angle photograph of a vast, snow-covered mountain range. The peaks are jagged and partially obscured by soft, white snow. In the lower right corner, the dark silhouette of a person's head and shoulders is visible, looking out over the landscape. The overall color palette is dominated by whites and light blues, creating a serene and expansive atmosphere.

II

The State (regional,
national, supra-national)
should create the right
conditions for university
development!

The State must create the right conditions to allow universities being responsible and responsive!

- Universities, in particular research ones should be
 - “Responsive” to the needs of society, and
 - “Responsible” organizations (contribute to the improvement of society)
 - “Responsible” organizations are “responsive” in the long run
- Autonomy (and academic freedom) is a necessary condition for “responsible” research universities
 - Choice of programs and research topics
 - Choice of faculty and students
 - Choice of organization and management models; ownership of facilities and equipments
 - No (micro) political management, BUT accountable institutions

- State HE/R policies and funding must
 - Secure a good secondary education
 - Give a high priority for HE/R
 - Reflect the national development priorities, in particular the development of human resources
 - Reward quality and promote competition between institutions and researchers (“output” based) (for ex.: UK model)
 - Open-up the country to world competition and take advantage of the world reservoir of competences

A photograph of a snowy mountain peak, likely Mount Everest, with a person's silhouette visible in the foreground. The text is overlaid on the image.

III

Universities
should work hard and well
to improve and develop!

Universities should have a clear understanding of their objectives and missions!

- Very few universities can excel at doing everything (teaching and research in all disciplines)
- Institutions should try to position themselves in selecting rigorously their missions
 - Playing at regional, national or international levels?
 - Comprehensive, focused or mono-disciplinary?
 - Teaching and/or research?
 - Traditional students and/or LLL? Traditional teaching methods or distance education
- AND try to be good (excellent) in what they have chosen to do
- Institutions must play the game of competition and exploit the potential benefits of collaboration

Human resources should receive the highest priority!

- The recruitment of faculty is a key decision
 - It should be competitive and in most cases open to international competition
 - Salaries AND working conditions should be attractive; however, it is not the only criteria
- The training of the next generation faculty is crucial at national level
 - MA and doctorate studies should be encouraged and of good quality
 - Doctorate students and post-doctorate fellows should have teaching part time assignments
- Students
 - Must be selected according to their merit at least at MA level and higher
 - Deserving students with insufficient means should be supported

Institutions and faculty should “fight” for funding!

- A basic reality: State funding will never be sufficient
- Development will depend largely on the capacity of the institution and faculty to raise additional resources. There are a couple of possibilities:
 - Outside:
 - To raise students’ fees (arguments in favor and against)
 - To apply for research grant to the “research council” or a foundation
 - To promote and sell the IPR (patents, licenses)
 - To create and grow an endowment fund thanks to keeping track of former students (alumni, ...)
 - Inside
 - To reward success in found raising (matching funds); HOWEVER, it is crucial to protect those disciplines living in a “poor” environment
 - To set-up an innovation fund capable of rapidly support a promising initiative not foreseen in the 4-5 years plan or budget

Universities should run an active innovation policy!

- No single receipt, but a few basic principles
- “Innovation will remain a dream if there is nothing to apply”; basic research is a prerequisite
- Most innovative teams are multidisciplinary and composed of people doing basic as well as applied research (also working in academic research lab. and business)
- Non “scientific” and technology disciplines are not “second class”
 - Many (if not most) societal problems will not (only) be solved by science and technology (for ex.: peace, social cohesion, human security and dignity, access to education and medical treatment, etc...)
 - A good education in social sciences and humanities broadens researchers’ minds and make them more sensitive to their environment
- Scientific (in the broad sense) and technological curiosity and creativity
 - should be continuously promoted since primary school,
 - Internally promoted thanks to the creation of a favorable communication environment

Universities should run an active communication policy

- There is a variance between the reputation of an institution and its effective quality
- Reputation contributes to quality! therefore, it is important to raise reputation. Main vectors
 - Research and publications (determinant for world rankings):
 - promote the publication of research results (in the best known journals),
 - harmonize the “institutional signature”
 - Collaborate with better known institutions
 - Internationalize
 - Communication policy
 - Run an active (aggressive) communication policy in the local and international press, on the web, in fares, etc..

The University of the future is lead and managed!

- The university leaders should
 - Lead their institution and have the power to do so
 - Be “academics” with a proved ability to manage a complex institution
 - Report to a board of trustees (and not to the government)
 - Be accountable to the State and/or their sponsors
- The high level of scholarship and innovation capacity at the base of the hierarchical “pyramid” requires
 - an intensive communication (consultation) system
 - a management system by objectives and output financing
- Universities must develop an internal quality culture in order to improve quality “across the board”

Conclusion

A photograph of a snowy mountain peak, likely Mount Everest, with the word "Conclusion" overlaid in a large, blue, sans-serif font. The mountain is covered in snow and has a sharp peak. The sky is a pale, hazy blue. In the bottom right corner, the dark silhouette of a person's head and shoulders is visible, looking towards the mountain.

- Becoming a good university serving the country is not the product of chance (history helps, but is by far not sufficient)
- In order to progress in the world ranking lists, any institution
 - should benefit from a good environment,
 - sets its missions in line with reality and fix priorities and posteriorities accordingly,
 - be responsible towards society
 - be lead, proactive (entrepreneurial) and well managed,
 - promote and reward quality, creativity and innovation through the management of human and financial resources, as well as innovation and communication.

THANK YOU FOR THE NICE INVITATION

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