

**BETWEEN KNOWLEDGE MULTINATIONAL AND FREE GLOBAL UNIVERSITAS**  
**International higher agricultural education towards 2010**

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**INTRODUCTION**

Reform debates on content and structure of higher education are as old as the idea of the university itself. After World War II higher education in Western Europe has changed considerably. These changes relate to the role of research and scholarship, the disciplinary and professional thrusts, the ways of teaching and learning and the relationship between academia, university administration, government and society (Teichler, 1996: 90).

These general shifts are reflected, at least partly, in the development of higher agricultural education. In addition, structure and content of higher agricultural education is strongly influenced by processes of globalization, changes in the agricultural production system and concurrent ruralization (see Van den Bor et al, 1995). Global developments and the subsequent processes of rural restructuring are no longer gradual but represent a 'quantum leap' (Fuller and Van den Bor, 1995).

Over the past few years serious discussions have been initiated on the implications of globalization and rural restructuring for higher agricultural education (Van Haarlem and Colpaert, 1993). These discussions focus inter alia on targets and contents, institutional management, issues of professionalization and strategy (Van den Bor, 1993). They are both relevant and speculative. Relevant because extremely rapid societal and sectoral developments are taking place right before our eyes. Speculative because professing what higher agricultural education will look like in 2010 is as difficult as predicting who will be the next Pope. Yet, we will have to do something very soon to prevent our higher agricultural education system becoming obsolete through its own lack of innovativeness or being made obsolete by multinational media giants who see a market for virtual higher education of the worst kind. Thus, the question is: how can we structure our discussion on higher agricultural education in such a way that policymakers, university leadership, faculty and students can do something now to initiate educational improvement? We feel that a productive way of looking at higher agricultural education towards 2010 is to try and free ourselves as much as possible from dusty paradigms, conditional straitjackets and blurred tunnel visions. Instead we propose to step into a time-machine and travel to 2010. What will we find

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when we look for an institution for higher (agricultural) education in the United States of Europe? Let us assume, just for the sake of discussion and argument that our agricultural university will have developed into either a *knowledge multinational (KMN)* or a *free global universitas (FGU)*.

In what follows we develop these two polar notions by looking at the following key issues: mission, target groups, societal role, internal task differentiation, international task differentiation, disciplinary development, role of information and communication technology (ICT) and internal human resource development. We do realize that our experiment will result in two somewhat caricatural ideal types. We hope, however, that it will stimulate our discussions about the most desirable course of higher agricultural education. Lastly, we will discuss the possible ramifications for institutions for higher agricultural learning such as Wageningen Agricultural University.

## **PROFILE OF EXTREMES**

### *Mission: marketeer or moderator?*

The *KMN* is strongly market-oriented. Courses, modules, teaching materials and other services in the educational sphere will be geared to market demand. Logically, these products will be made in the first place for those who can afford them: industry, government, the rich in the society. Product differentiation will be based on market surveying. The *KMN* will try to influence consumer behaviour through the media. Presentation of products will be very important; sometimes the packing is of more importance than the quality of the product. Quality control will be strongly influenced by the market but not in the first place by individual consumers. Quality indicators will not be based primarily on scientific considerations but, for example, on the manipulative power or commercial value of the academic produce. Fundamental or small-discipline research will only be carried out on the basis of rather lengthy and cost-effective contracts with government institutions or big multinationals. The latter clients determine the research questions, however, as well as the dissemination of research results. Commercial expertise plays an important role in staff recruitment. The *FGU* is also oriented to a market. Its market orientation is not characterized by commercial considerations, however, but by the wish to moderate between people and institutions. Curricula, research programmes and outreach strategies are based on participative and societal needs assessment, scientific curiosity and the 'Bildungs' idea (Barnett, 1990: 43). Social demand plays an important role in curricular innovation. Quality control is based on academic peer review and societal recognition. Quality indicators are derived from a combination of scientific standards, societal values and ethical considerations. There will be ample opportunity for the development of original, creative research, also in so-called small disciplines. Research, teaching and outreach are equally important and researchers, educators and outreach staff are equally rewarded. Contract activities will be subject to strict rules and regulations to avoid commercial dominance. The mission of the *FGU* is adapted to international regulations regarding human rights, environmental care and responsible natural resource

management. The FGU is primarily financed by governments, the EU and international agencies. Scientific background, didactic and communicative skills, international orientation and ethical responsibility are important indicators in staff recruitment.

*Target groups: customers or partners?*

The *KMN* has customers, individual and corporate. The customer is always right or will be given that feeling. Public relations, price and market policies of the *KMN* are directed towards customers who can afford the knowledge and information products or who can be assisted to get access to financial means to buy these products. The total clientele of the *KMN* is flexible and differentiated. The choice of clientele can depend on the entrepreneurial mission of the *KMN*. Sometimes the production of knowledge is directed towards specialization to serve well-selected but highly affluent customer groups (e.g. the military). On other occasions the *KMN* is active on the 'bulk' market (e.g. food industry). The choice of target groups is always directed by the idea of profit, however. International curricula, for example, will only be offered if international students can afford the fees or if scholarships are made available by external sponsors. The *KMN* is not interested in issues such as equity and equal access to higher education. The needs and demands of potential target groups are assessed, and manipulated if necessary. This process of needs assessment is rather superficial and ad hoc. Customer influence on quality control will be allowed as long as this is necessary to raise profit margins.

The target groups of the *FGU* are considered partners. This holds for students, as well as those participating in research and outreach programmes. Participative action is realized in curriculum development, research programming, outreach strategies, management and quality control. As the *FGU* is financed by public means, its policy is directed towards providing access to financially and socially less fortunate groups of students. This policy is international and gender-focused. The influence of the partners of the *FGU* does not interfere with scientific standards, though. The scientific standards can be subject to discussion with partners, however. To enable target groups to function effectively in contacts with the *FGU*, they are continuously informed about the internal developments and plans of the *universitas*. Sponsors are partners as well, but financial sponsoring will not be accepted if it comes with conditions which are not commensurate with the *FGU*'s mission and policies.

*Societal role: commoditizer or conscientizer?*

The *KMN* does not feel responsible for societal developments, good or bad. Its mission is to commercially commoditize and market knowledge and information and it is not concerned with the societal impact of the knowledge and information it produces. Its relationship with society is based on image building. Building a positive image amongst a wider international audience is necessary for economic reasons in the first place. As a matter of economic logic, the *KMN* will work for affluent groups and institutions in the society. It will occasionally carry out altruistic

activities for less fortunate groups if this is financed externally or if it serves its positive image. The *KMN* will try to influence policymakers and politicians through well-organized lobbying practices. The *KMN* will try very hard to keep a decent image but it will not engage in ethical discussions about the societal role of science.

The *FGU* is deeply concerned about its societal role and the societal impact of its activities. This shows in its choice of research programmes and strategy, its concern for equal access and its continuous search for social justice. The *FGU* considers itself some sort of scientific conscience and gatekeeper of ethical standards in scientific development. The *FGU* realizes, however, that it can never monopolize these standards and that its conscientizing role can only be meaningful if it is based on participation of target groups. The *FGU* puts emphasis on serving less affluent and fortunate groups in society and claims the right for affirmative action (i.e. to favour some groups above others). The *FGU* is critical towards policymakers and politicians but is also involved in policy-oriented research if this is in accordance with its mission. The *FGU* is concerned about its image but this concern relates to scientific integrity and societal bondage in the first place.

*Internal task differentiation: specialists or generalists?*

The *KMN* will look for the optimal and most profitable internal differentiation of tasks of its workers. Production work will be organized in holdings: there will be holdings for applied research, for training, for research and development, for publication, and so on. These holdings will be supported by staff units for acquisition, technology, administration and the like. This will be realized by combining institutions of different kinds beyond national borders (see further). The workers within the different production holdings are flexible specialists. Specialists because they are trained as researchers or trainers, flexible because they have to function in multi- or interdisciplinary teams which directly react to market changes. These workers have a commercial attitude and will be subject to continuous in-service training. Their corporate value will not be measured in the first place by the length of their publication list but by their contribution to the turnover of the *KMN*. Their salaries are not fixed but based on a bonus system. They have to be prepared to be internationally mobile and they speak at least three languages.

The *FGU* will train its personnel in a more generalist way. A solid (multi)disciplinary fundament will remain important, though. Old disciplines will disappear and new ones will emerge (see further). Staff of the *FGU* will be involved in teaching/communication, research and outreach, but individual preferences will be honoured. Staff members have to publish but scientific quality and societal relevance are considered more important than quantity. Teaching quality is considered as important as research expertise or outreach proficiency. Staff members of the *FGU* realize that utilizers of their 'products' are important sources of expertise as well. *FGU* staff will be trained to participate in knowledge platforms consisting of all actors involved in a particular knowledge network/system. All staff members are paid according to a standardized salary system but creative and active staff members can be rewarded additionally by giving them extra time for self-study or

international mobility. All staff members are, in principal, prepared to be internationally mobile. They are trained in intercultural issues and they speak at least three languages.

*International task differentiation: grasshopper or backstopper?*

The *KMN* can be compared to a grasshopper. It is a very active 'animal', bridging enormous distances but with one important goal: to be where there is green grass! The *KMN* will be internationally oriented but this orientation will be guided by the most interesting combination of production factors. If contract research can be carried out cheaper in Asia than in Europe, it will be done in Asia. If it is cheaper to train international students in North-America than in Africa, it will be done in North-America, irrespective of the negative consequences such as brain-drain or neglect of local (African) institutional development. The *KMN* will consist of a conglomerate of functional units: (former) universities, publishing houses, ICT firms, consultants and even religious organizations if such a liaison proves to be beneficial, e.g. in tax-paying. As the *KMN* produces knowledge products, information and communication technology will be of utmost importance. Irrespective of the mobility of its workers and of ICT, however, expertise will be concentrated in places where the mix of production factors is most advantageous. This implies that relatively simple production functions (e.g. printing of materials) will be realized in other parts of the world. The gap in expertise between different geographical locations of the *KMN* will become institutionalized.

The *FGU* is not monopolized by economic considerations. It will try to spread its functional activities to enhance local and regional institution building. This means that traditional international task differentiation will change. Foreign students will no longer be trained exclusively in Europe but also in their home country (see, for example, Stigter et al., 1995). European and North-American partners will assist in this process of institution building. The concept of 'reciprocity' is very important in this respect: scientists from the South and from the East will be invited to come to teach and do research in the North and the West. Javanese social scientists will do anthropological research in Denmark and African staff will teach Dutch students in Wageningen. Northern and Southern scientists work together in the *FGU* to produce textbooks and databases, using the most up-to-date ICT possibilities. Students will be allowed to take modules in virtual classrooms (see further) from different institutions united in the *FGU*. Modules and study programmes at different levels are internationally acknowledged and included in an international qualification system. Results of scientific research will be made accessible and widely disseminated and discussed with respondents and utilizers. The *FGU* as an organizational network will monitor and backstop all these activities.

*Disciplinary development: demand-driven or problem-oriented?*

Conventional disciplinary boundaries are, at least partly, fading away. This is a consequence of the rapidly growing socio-economic and technological complexity of this era. This is especially

true for applied disciplinary areas. Plant pathology gives way to integrated pest management, agricultural sociologists become rural development analysts and so on. The KMN has a keen eye for these disciplinary changes. It will not play a very big role in the definition of new disciplines but it follows the demand for new experts and expertise. Also it translates these new disciplinary demands into curricula offered to customers. It offers training packages to those who have to be retrained in a new discipline. As long as the outside world asks for a functional differentiation in creators, managers, utilizers, brokers or facilitators of knowledge, the KMN will train them (see Van den Bor, 1993). The KMN contributes to disciplinary changes of different sorts, but this contribution is in the first place demand-driven. It is perhaps better to say that the KMN offers new professional orientations by re-arranging conventional disciplinary inputs. That is, if there is sufficient purchasing-power. The *FGU* is also concerned with the changing disciplinary boundaries. The *universitas*, however, tries to play an active role in this process. It acknowledges its scientific and societal responsibility in stimulating debate, in critically re-examining scientific theories and paradigms, in deliberately developing new (sub)disciplinary lines that do not seem to have much impact at first sight. This strategy of the *FGU* is not only ruled by scientific considerations but also by normative and ethical standards. If, for example, the *FGU* acknowledges the worldwide negative consequences of unlimited consumption of animal protein, it will stimulate disciplinary changes in food technology so as to explore alternative resources of protein for human consumption. The *FGU* focuses on problems rather than disciplines, and this problem orientation is mirrored in teaching, research and outreach. Problem orientation is not in the first place demand-driven but based on a continuous societal alertness and knowledge negotiation with different societal actors. The *FGU* receives substantial public financing for this critical role. The *FGU* acknowledges that disciplinary differentiation is time-, place- and culture-specific. It also recognizes that rationality is but one human property with which to tackle societal and even scientific problems. It does not neglect or disqualify the impact of spirituality, intuition and other so-called subjective approaches to problem definition and problem solving.

#### *Information and communication technology: means or meaning?*

As stated before, we can safely assume that ICT will play a very dominant role in future higher education. The KMN will use the possibilities of new ICT to its fullest potential. ICT functions as a delivery system for new KMN knowledge products. The KMN uses virtual classrooms to market its products on a global scale. Its staff will be virtually mobile using interactive video-conferencing and teaching. Textbooks and databases will be electronically produced and made available via Internet or CD-ROM. In doing so, the KMN is subject to substantial influence from media-giants, publishing houses and satellite-owners. These industrial powers will participate in the KMN through strategic alliances. In applying the possibilities of ICT, the KMN does not so much use didactic or communicative indicators for quality but looks at cost-effectiveness in the first place. This implies that ICT-advanced customer markets will benefit most from the products of the KMN. The KMN will only invest in ICT-development in ICT-poor areas inasmuch as prospects for future purchasing power are favourable. Thus, ICT is seen as a means to profit making, product differentiation and the elimination or buy-out of traditional knowledge and

information providers. The KMN is not interested in the detrimental societal, educational or scientific side effects of ICT.

The *FGU* is also very interested in looking at the benefits of ICT. It does apply ICT in its teaching, research and outreach but not without scruples. Continuously the *FGU* will critically analyze the meaning of ICT for its work. It will pose and scrutinize questions such as the following. Does ICT really enrich our education? What is the implication of the unlimited use of ICT for personal communication between our staff, between students and staff, between staff and society? Does the use of ICT narrow the technology gap between North and South, West and East or does it widen the distance? What can personal communication offer that can never be replaced by virtual communication? What are the advantages and setbacks of virtual mobility compared with personal mobility of staff and students? What does the use of ICT mean for the accessibility of our services? In doing so, the *FGU* will make ICT an object of scientific analysis and ethical validation. Another important question is to what degree ICT enhances learning, learning abilities and knowledge construction abilities amongst learners/teachers (De Jong, 1995; De Jong and Volet, 1995)? The *FGU* is critical about the influence of media-giants and publishing houses on scientific standards.

*Internal human resource development: account managers or science brokers?*

Internal human resource development or professionalization of staff is essential for the *KMN*. As stated before, the workers of the *KMN* have to be very commercially oriented. They must have scientific interest, of course, but their first concern is not the promotion of science, but the selling of knowledge and information products. They will have to be good account managers in the first place. If the *KMN* cannot meet the demand, these account managers will have to look for external inputs in a flexible way. They are well-versed in ICT and they are internationally mobile. The *KMN* puts great emphasis on ongoing internal professionalization of staff but if staff training can be contracted from outside more profitably, this will be realized. The management of *KMN* is commercially trained and has an outspoken entrepreneurial outlook. Salaries and incentives of staff and management are compatible with those in other industrial sectors.

The *FGU* also puts great emphasis on internal human resource development. Staff members are in the first place scientific brokers and mediators, however. They are interested in doing scientific work but especially in bringing groups together in society that can contribute fruitfully to scientific debate and development. Staff members of the *FGU* realize that sources of knowledge and information are increasingly diversified. Alternately they are generators of knowledge and consumers of knowledge: they are working in the context of a learning organization and the knowledge society (Senge, 1990; Bereiter, 1994; Bereiter and Scardamalia, 1994). They bring people together in 'platforms' to define problem areas and strategies for problem solution (Röling, 1997). Staff is well-versed in ICT but has a keen eye for its societal implications. Staff is highly internationally mobile, culturally sensitive and didactically well-trained. The management of the *FGU* is a combined effort of well-trained technical administrators and scientific heavy-weights.

Salaries and incentives of staff and management are decent but are not necessarily tuned to the level of industrial sectors.

## **INTERNATIONAL HIGHER AGRICULTURAL EDUCATION, QUO VADIS?**

The simplicity and reductionist character of ideal types, scenarios and megatrends have the advantage of inducing feelings of enthusiasm and/or awe. Prospective thinking about the character of the KMN or the FGU will certainly evoke these feelings. If prompted to make a choice, our reaction will probably be: "We want the best of these two possibilities". This raises a number of important questions:

- What is 'the best'?
- What are the leading criteria in making such a value judgement?
- Who makes these judgements?
- What is the most appropriate strategy to realize the most desirable option?

The first question -what is 'the best'- can only be answered by confronting claims and aims of international higher learning. Claims are influenced by general societal developments, sectoral labour market developments, international division of scientific work and trends and developments in higher education. These developments are partly interconnected, partly autonomous in character. In earlier publications we have analyzed these developments in more detail (see Van den Bor, 1993). The Western European idea of the university, for example, has changed over the past decades from elite institution to mass enroller; from teaching community to 'research factory'; from 'Bildungsuniversität' to entrepreneurial university; from adolescents sanctuary to a 'straitjacket' for students and the management style developed from aristocratic leadership to strategic management (Van den Bor, 1993: 50; see also Teichler, 1991; Neave 1991 and Husén, 1991).

The important thing to stress here is that we have a choice, at least to a limited extent. Those involved in international higher education can formulate their general aims! We can influence enrolment at our universities by trying to solicit sponsorship for less-advantaged international students. We can attach more value to teaching instead of adapting mulishly -or sheepishly- to the 'publish or perish' motto. We can be more critical about the entrepreneurial mission of higher education. We can try to see our students not so much as 'output' but as potential partners in the academic discourse. We can look for a more enlightened management style that enhances a less unilateral definition of strategy.

This brings us to the second question. Making judgements requires a set of criteria. The sources of these criteria are manifold and strongly varied. The general societal role of the university is an important source. This role is reflected both in social demand and manpower demand. The latter demand strongly relates to developments in the sectoral professional domains. Developments in agriculture, food production and environmental care are predominantly independent of what a university chooses to be, but not totally. Universities and their staff are also opinion leaders and

discussion partners of policymakers and industrial entrepreneurs. As such, universities have a role to play in criteria development as well. Another source of criteria is the discourse of what scientific work should encompass. Is our work dominated by a rather reductionist, positivist and technological scientific paradigm or are we susceptible to a more holistic, constructivist scientific approach (Pretty, 1994; Engel and Van den Bor, 1995)? A last source of criteria to be mentioned here is connected to the ethical domain. What are the ethical standards that shape the content and nature of our research, teaching and outreach. Where do we position ourselves on the continuum between being 'social and ethical gatekeepers' and 'academic prostitutes'?

The next important question is: who makes these choices and judgements? This question strongly relates to management style and management strategies. The latest developments in institutional management practices, at least in the Netherlands, are not very promising. Management of higher education tends to become more top-down and command-oriented. This does not preclude participative decision making per se, however. Centralized management of international higher education could be beneficial to a more communicative institutional atmosphere, if our new managers realize that the university is not an industrial firm but a meeting place of responsible and highly trained professionals and emancipated clients. This confrontation of academic professionals and different groups of critical clients can only be fruitful if all actors concerned have at least some common feeling of ownership of what the university is all about. This requires managerial enlightenment and wisdom. More concrete it presupposes proper internal and external information systems, institutionalized possibilities for discussion, consultation and negotiation and transparent procedures for ex post legitimation and control of management activities.

This may all sound rather abstract. Yes, we all want to live in paradise but can we say something about how to arrive there? What are appropriate strategies to realize the most desirable options? This is the subject of our next and last section.

## **TOWARDS WAGENINGEN UNIVERSITY TRUST ON PROCESS-ORIENTED INTERNATIONAL AGRICULTURE: W-UTOPIA**

In this last section we will not present concrete proposals as to where Wageningen Agricultural University or any institution for higher agricultural learning should position itself between the postulated KMN and FGU ideal types. Apart from not being qualified to do so we strongly feel that this should be the outcome of an intensive process of discussion amongst all actors concerned. Instead we propose a framework for strategic discussion and long-term development. The final outcome of this development should be a Wageningen University Trust On Process-oriented International Agriculture. The domain of agriculture should be defined in its wider rural context.

The road to W-UTOPIA will be paved by creating the following platforms or whatever kind of fashionable name one wants to give them. We distinguish four of these different infrastructures, as follows (see also figure 1):

- the Internal Mediator for Innovative Development (IN-MIND)

- the External Mediator for Innovative Development (EX-MIND)
- the Environmental Arena Reader (EAR)
- the Human Energy And Resource Treasury (HEART).

Let us have a closer look at the functions of these four infrastructures. The *IN-MIND* is a platform of actors from within the institution. The IN-MIND includes representatives of academic staff, administrative and support staff, students and institutional management. If the university develops into a consortium of some kind by liaising with other (inter)national universities, colleges, research institutions or commercial enterprises, these external partners are also represented in the IN-MIND. The function of the IN-MIND is to optimize internal communication and consultation. The IN-MIND does not take decisions; it is a think-tank which meets two or three times per year. It discusses all the key issues that have been analyzed earlier in this paper (mission, target groups, societal role, et cetera). The discussions of the IN-MIND are fed by information provided by the EX-MIND, the EAR (see further) and by the formal management of the institution. The IN-MIND is administratively supported by professionals of the central office of the institution. It consults external experts if and when necessary. The IN-MIND may install ad-hoc working groups to do detailed research on certain issues. The *EX-MIND* is a platform of actors from outside the institution. The EX-MIND includes independent international key-persons who are interested in the working domains of the Wageningen consortium. The EX-MIND discusses the ideas and strategic proposals of the IN-MIND by confronting them with international societal developments, sectoral changes and ethical implications. The EX-MIND also presents advice and suggestions for management. The discussions of the EX-MIND are fed by the IN-MIND, the EAR and by the formal management of the institution. The EX-MIND is administratively supported by professionals of the central office of the institution. Members of the EX-MIND receive a reasonable remuneration for their time-input. Their independence, however, is guaranteed by charter. They meet once every year in an 'neutral' setting.

The *EAR* is a functional unit within the Wageningen-consortium consisting of a small team of experts. The main functions of the EAR are:

- to follow developments in the agricultural sector and in rural development, globally, nationally and regionally
- to assess developments in the actual or perceived international labour market
- to take account of developments in international higher (agricultural) education
- to regularly analyze, interpret and 'translate' these developments into digestible information for the IN-MIND, EX-MIND and HEART and, of course, for central management of the consortium.

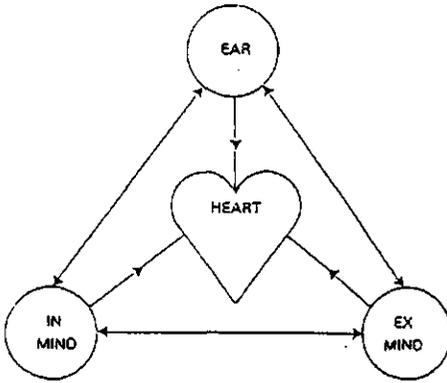
In general, the EAR will not do research itself. It will make use of scientific research carried out by others. It will, for example, commission departments of the consortium to carry out contract research. The EAR's task is to listen, to interpret and to feed information to the other infrastructures of the Wageningen consortium. Also, the EAR presents a yearly 'Promising Activities and Chances Report'. The EAR enjoys strict independence in its strategy of providing information to the other infrastructures.

The *HEART* is the internal functional unit dealing with the generation of human energy and resources. The following functions are combined in the *HEART*:

- the development of instruments for internal quality control
- ongoing professionalization of academic staff in terms of research training, didactic training and improvement of outreach proficiency
- providing possibilities for training of support and administrative staff, especially in the areas of liaison, transfer, acquisition and public relations
- developing a flexible reward and incentive system for all staff
- developing a strategic alumni policy as well as a client-follow system
- the development of innovative options and instruments for internationalization of the consortium.

The *HEART* is fed by the *EAR*, the *IN-MIND* and the *EX-MIND*. It publishes a yearly and independent 'Report on Perceived Human Energy and Resource Needs'. The *HEART* is financed centrally but can work as a contractor for external clients on a commercial basis. For reasons of cross-fertilization and independence, the *HEART* is organizationally connected to an appropriate academic department.

The four functional infrastructures are represented in the following figure.



*Figure 1 Framework for strategic discussion and long-term development*

It goes without saying that the development of W-UTOPIA as a consortium requires strong central management. Future managers have to be daring, creative and imaginative people. They need the ability to involve all actors concerned in a participative process. They will have to accept that the outcomes of such a process cannot be professed or unilaterally decided. They need the ability to motivate people by developing a proper mix of challenges and incentives. Let us call them provisionally the General University Transformation Squad. Yes indeed, GUTS...

## CONCLUDING REMARKS

This paper presents a somewhat fictitious image of international higher agricultural education towards 2010. We hope, however, that there is also a visionary element in this contribution. We do believe that our present way of dealing with the 'quantum leap' changes that affect our institutions for higher agricultural learning is rather piecemeal, ad hoc and short-term.

Our strategic thinking is too piecemeal because we have great difficulty in conceptualizing how the different functions of our institutions interrelate and how these functions can enforce each other. We try to innovate the institutional context of research and education by creating graduate schools and schools of education within the university but we have no idea as to how these institutional sub-groups relate to each other and how they can contribute to realizing each other's and our common missions. We try very hard to develop strategic lines for interinstitutional cooperation, but these initiatives are more often based on incidental reports of interested outsiders than on an in-depth discussion as proposed in this paper.

Up till now our strategic thinking has also been rather ad hoc. It was induced by external policy measures, especially financial ones. Also the prospective development of student enrolment has been used as an indicator for strategic thinking. In this way, strategic thinking has become too much of a re-active and incidental tool instead of being pro-active and comprehensive. We will have to accept that change will be the rule, not the exception. This implies that management of change will have to be institutionalized in our management infrastructure.

Like any other utopia, W-UTOPIA will never be realized. The advantage of utopian thinking, however, is that it prevents us from improper short-term action. Long-term thinking about missions and target groups is absolutely necessary, as we have to take short-term organizational decisions with serious long-term consequences for all actors concerned. More haste may easily result in less speed.

The human factor and especially the way individuals and groups can be motivated, con-vinced and rewarded determine the viability of any strategic initiative. People need to know the why's and what's in a longer term perspective. Consequently, it is absolutely necessary to bring people together in a structured, non-incidental and long-term setting. If we manage to do this we might come a bit closer to a truly professional learning organization.

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