THE EXIT STRATEGY AS RESPONSIBLE WITHDRAWAL FROM SUSTAINABLE DEVELOPMENT PROJECTS

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The paper addresses the role of the public research university in promoting more sustainable agrarian practices.

It is focused on the idea that a proper exit strategy of any research project should aim to bridge the innovation gap that exists between research and practice and that a responsible withdrawal form a research program in the field of sustainable development must ensure proper knowledge transfer to the institutions of the local copmmunity

Keywords*: exit strategy, project management, new paradigm.*

This paper intends to be a starting point in exploring how researchers should engage in and understand all facets of agricultural production, distribution and consumption.

Emphasizing the role of people by exploring the complex ways they conceptualize, give meaning to, and organizing around agriculture, we intend to draw attention to a new possible paradigm that might impose itself in sustainable agriculture: "culture of agriculture" [1].

The research and development programs should promote a long term commitment to incorporating a social-science perspective into the current dominant agro-bio-physical science orientation.

The institutional constraints [2], the intellectual challenges [3] were revealed in related work. But the social and financial difficulties should also be revealed, in order to be able to bring back the culture to agriculture, to intensify the role of social research with an emphasis on promoting sustainability in agriculture [4].

Former work [5] aimed to draw attention on the innovation gap that exists between research and practice.

The authors considered that the innovation gap is a reality that has as result a slow rate for new technology adoptions in agriculture and that it is mainly the result of deficient knowledge flows. As an investigation method the paper used the Nonaka Dynamic Theory of Organizational Knowledge Creation related to knowledge flows and its structural implications for innovation [6].

A NEW PARADIGM - THE CULTURE IN AGRICULTURE

The current development paradigm based on science and technology driven progress has revealed serious "costs": pollution, human induced climate changes, irrational waste of energy and the disappearing of middle classes. Removing the study of human behavior from the study of agriculture reduces agrarian based problems to purely technical ones. It also takes away an understanding of local values, systems of knowledge and organizational strategies, at a time when people have to face increasingly complex, global realities [7].

Maintaining a social perspective will enable a critical ability to explore the way politics shape and constrain the rural society.

As we mentioned before, any research project in the field of sustainable development should aim to bridge the innovation gap that exists between research and practice. Therefore, we consider important that each research and development program has a well-defined and articulated exit-strategy to ensure a smooth transfer of initiatives that are in transition from the development to the implementation phase.

This paper aim at defining a coherent exit strategy for appropriately and transparently ceasing involvement and transferring results within a research and development program for a sustainable agriculture.

Even if the research and development programs, due to their grant financing nature, have a defined end point, the new knowledge needs to be transferred to people with a very different professional profile than the academic profile all researchers have. The overall picture becomes even more complicated due to the interdisciplinary character of most research and development programs in sustainable development [8, 9].

All those intricacies seem to reveal the shift to a new paradigm in research and development in sustainable development, the shift to a new paradigm that intends to bring back the culture to agriculture, by analyzing not only the technical aspects, but also the social aspects of sustainable development and by ensuring proper knowledge transfer to local communities.

ASPECTS REGARDING KNOWLEDGE TRANSFER

We consider that the innovation gap that exists between research and practice is the result of deficient knowledge flows. Little research to date investigates the reasons why agriculture adopts new technologies slowly, nor the mechanisms involved. As a method of understanding the innovation gap and also of the structural and behavioral mechanisms related to new technology adoption, we will consider the Nonaka Dynamic Theory of Organizational Knowledge Creation related to knowledge flows and its structural implications for innovation.

According to [6] organizational level knowledge is created through a continuous dialog between tacit and explicit knowledge. In this framework, it is assumed that new knowledge is created through conversion between tacit and explicit knowledge.

Explicit knowledge is defined as knowledge that can be transmitted in formal, systematic language, whereas tacit knowledge refers to knowledge that has a personal quality and therefore difficult to formalize and communicate.

Basically, there are four modes of knowledge conversion between tacit and explicit: socialization (tacit to tacit), internalization (explicit to tacit), externalization (tacit to explicit), and combination (explicit to explicit).

Table 1

Modes of knowledge conversion

Ontological dimension	Epistemological dimension	
	TACIT	**EXPLICIT**
TACIT	Socialization	Internalization
EXPLICIT	Externalization	Combination

Socialization of knowledge takes place through shared experience. Mentees learn from mentors through a process of observation and repetition. In the new technology adoption process, a team will develop routines and procedures for using the new technology.

Combination of knowledge is a process by which explicit knowledge held by individuals is shared. In the process of sorting, adding, re-categorizing and re-contextualizing, explicit knowledge can lead to new knowledge. In interacting with a new technology tool, the same team would combine knowledge about how best to use the tool during formal or informal meetings. The combined knowledge would lead to knew knowledge of better ways to use the new tool.

Internalization of knowledge is analogous to the traditional concept of learning. However, because in this case explicit knowledge is converted to tacit, it is the process or action that enables conversion. In the case of a new technology tool, the act of using the tool enables the internalization of knowledge. In the opposite case, externalization of knowledge refers to the conversion of tacit knowledge to explicit knowledge. Because tacit knowledge is not definable directly in language, metaphors are often used to explain the knowledge concept. With our new technology tool example, the externalization refers to an individual describing to the team how he or she uses the tool.

PROPOSED EXIT STRATEGY

As the support from the team involved in the project is necessarily limited in time and resources, having an exit strategy will ensure processes are put in place from the outset to guarantee the long term viability of the sustainable development initiative in the absence of the research team support.

An exit strategy should be implemented when objectives or mutually agreed outcomes have been met or an agreed period of time has passed. In all cases, an agreement between the manager of the project and the project leader on the so called "triggers" that are supposed to signal the start of the exit strategy should be negotiated at the outset of the project.

Triggers can be positive or negative, and typically include:

- reaching defined objectives that signify that the implementation phase has been reached;
- transfer of responsibility to other organization;
- transfer of responsibility to other individuals;
- failure to achieve objectives;
- withdrawal of funding;

- failure to attract funding;
- a reduction of interest from the research community;
- unforeseen changes in the internal environment impacting on the viability of the program;
- unforeseen changes in the external environment impacting on the very foundations of the program.

The process of planning an exit strategy should be a consultative one between the management and the scientific leader of the project and should be carried out through initial negotiations within the project.

All parties should agree on both the triggers and the process itself, including timeframes for exiting and mechanisms for developing capacity for the ongoing conduct of various tasks.

The strategy and the triggers may need to be periodically reviewed to take account of changes to the research program. For this, a member of the tem must be assigned with the monitoring of the program.

The exit strategy from a program will be started when one or more mutually agreed trigger points will be reached.

The process could involve the following steps:

1. The research program manager is advised that trigger points have been reached and a meeting with the whole team is convened to discuss weather the handover process will commence or the team's involvement will be extended. In the case of positive triggers, the team's involvement will cease as in the original agreement. In the case of negative triggers, further discussion about options regarding the program's future may be required.

2. Once the exit strategy is started, the handover process is activated. This may vary from simple tasks, as compiling relevant documentation, to more complex ones, like working with staff who will assume responsibility for activities previously taken by members of the research team.

3. Upon completion of handover, a final report must be agreed and delivered to the management unit. The report should be formally acknowledged by the leader and the manager of the research program.

4. The withdrawal is communicated to all team members.

5. Project related electronic documents, including e-mails, should be archived to CDs or DVDs. At least two copies should be made: one given to the director of the program, the other given to the management unit.

Paper documents not available electronically should also be copied and handed over to the same units.

All those steps are summarized in the following flow chart *(fig. 1)*:

CONCLUSIONS

Today, when knowledge is recognised as a commodity with enormous geo-political implications, higher education should be restructured to become a more

effective and efficient economic driver. While higher education institutions have always behaved competitively, the new global economy has created a more aggressive environment, with new rules and challenges. This new environment has an important impact upon an institution's academic profile. Individual institutions and their faculties are coming under increasing pressure to expand their capacity and capability.

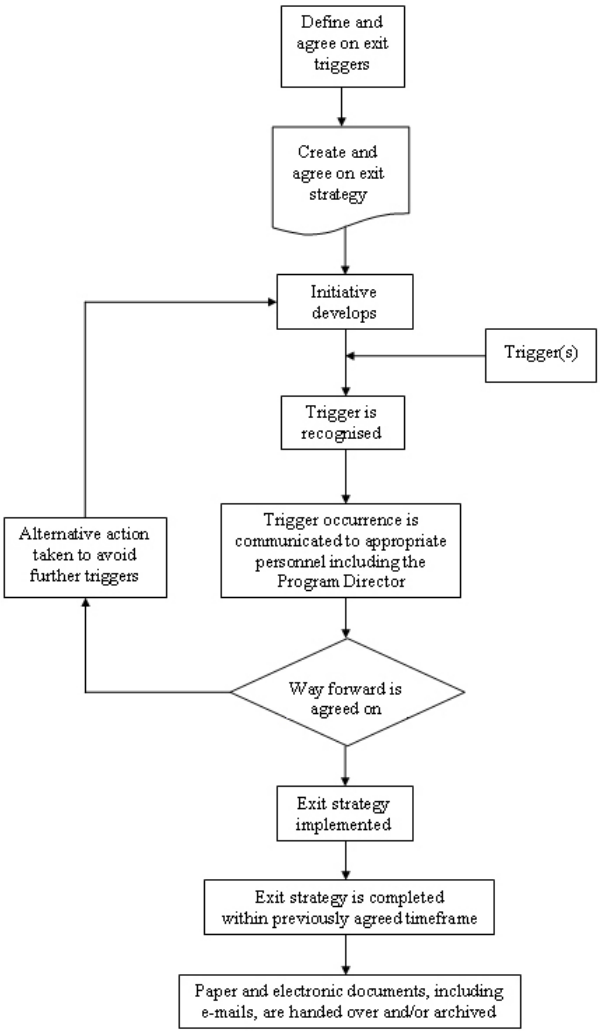

Figure 1. **Exit strategy. Proposed flow chart**

Partnership between Higher Education and local and regional communities could have an important impact and could help make them socially aware, economically secure and environmentally sustainable. Working in conjunction with administrators and staff, Higher Education faculty and students should conduct and implement research for sustainability programs on campus and surrounding communities. Graduating students could then bring knowledge, skills and values of

sustainability to their future employment, consumption decisions, lifestyle choices, and to the improvement of communities in which they live.

We support the hypothesis that the innovation gap that exists between research and practice is in part a function of structure. Only by understanding the structural and behavioral mechanisms behind it the economy will be able to integrate the results of any research program. Removing the study of human behavior from the study of agriculture reduces agrarian based problems to purely technical ones and takes away an understanding of local values, systems of knowledge and organizational strategies.

Maintaining a social perspective will enable a critical ability to explore the way politics shape and constrain nowdays the rural society. This critical ability can ensure a proper knowledge transfer to the regional communities for which the sustainable development research has been intended.

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