

The “Work on livestock farms” network (WLFN): Building a new domain of learning and intervention

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Abstract: *Work is identified as a major obstacle to the installation of young farmers or the continued activity of many farmers, in particular in livestock farming because of the obligations associated with the daily care of the animals. Work and its variations at farm scale (economy, organisation, value, efficiency, hardness of the work...) cover a multiplicity of questions and mobilize multi-disciplinary approaches which take into account the singularity of the livestock farmer’s view of his work. Evolutions in the role of advisers, their skills and position regarding farmers, have been necessary. In France, the attention given to this theme has for several years been the subject of a partnership between Research, Development and Education, which has taken shape today within the framework of a network officially approved by the Ministry of Agriculture. This “Work on livestock farms” network (WLFN) is the special framework to structure the sharing of experience and the emergence of new synergies. The genesis of the WLFN, its activities and productions (tools for advice, references, teaching work, analyses of experiences, etc), widely circulated, are presented and illustrated in the text. We show how the maturation of the partnership has been accompanied by maturation in the way of tackling this subject: the approaches of livestock farming systems (LFS) research and social sciences have converged; the question of advice (tools and approaches) has been reaffirmed. New interactions are engaged in the WLFN at the crossing of changes in work and the technical changes imposed by production and environmental issues.*

Keywords: *livestock farms, work, advice, extension, partnership*

Introduction

Work is identified as a major obstacle to the installation of young farmers or the continued activity of many farmers, in particular in livestock farming because of the essential routine tasks associated with the daily care of animals. The issues of reducing working time and improving farmers’ working conditions are therefore crucial, and all the more topical because evolutions both in production and producers (gains in productivity but also aspirations to social equity in terms of leisure time), and in society (animal welfare, environment, quality of water, air and landscapes), call into question the meaning of their profession.

Work and its various components (economic, organisation, values, efficiency, hardness of the work...) at farm scale cover a multiplicity of questions and require multidisciplinary approaches. In France, the attention paid to this theme has been the subject of a long term partnership between Research, Development and Education. This partnership began by being informal, on the basis of meetings between researchers and grassroots extensionists, confronted by demands from farmers to take this question into account when analysing the functioning of livestock systems. The partnership has taken shape today in the framework of an institutionalised network (RMT : Mixed Technological Network): the “Work on livestock farms” network (WLFN). This WLFN, an original partnership arrangement between development, research and education, officially approved by the Ministry of Agriculture,

now constitutes the special framework to structure the sharing of experiences and the emergence of new synergies.

Creating a RMT on the subject of work in livestock farming results from a slow maturation of the partnership, which is at the same time a maturation of the way this subject is tackled. The abundance of studies, methods, tools and proposals for solutions over the past ten years or so has profoundly renewed the approach to work in livestock farming systems (LFS) research (Gibon et al, 1999), moving closer to social sciences.

In this communication, after summarising the different models of livestock work which have developed over time and which coexist today, we will illustrate the genesis of the WLFN, its activities and productions (tools for advice, scientific studies, references, pedagogical work, analyses of experiences) as well as its circulation activity.

The work in livestock farming models

Schematically, we today distinguish three "models" (in the sense of framework of thought) of work in livestock farming which coexist and generate distinct approaches and collaboration issues (Dedieu and Servièrè, 2009):

The resource work

Work considered first of all as a production factor must be optimised in the framework of a farmer project that is concentrated on economic excellence. The essential of the margins for improvement reside in the study of work stations of very variable durations where gains in productivity are potentially easier to obtain (for example milking or the calving period).

Work as a complex system of activities over time

This so-called "organisational" model takes account of the search for systems that are both viable and liveable. Work is considered as a system of interactions between livestock managements, equipment and buildings, the workforce and other activities. The methods used propose indicators to appreciate the margins for manoeuvre and the tensions.

The subjective rationalities of work

These rationalities are centred on man, what he brings into play in the work and what the work enables him to be and become. They question the content of real work and formalise the subjective reasons for "working".

These models did not appear together, nor did they come one after the other during the partnership. Nevertheless, the order of presentation does reflect a progressive opening up to thought, from work evaluated quite objectively and remote from the worker towards work thought of as being an activity organised by the farmer according to his choices and his own set of constraints, contributing to build his identity.

In the end, the ways of considering livestock management and its transformations, engaging in dialogue with livestock farmers and guiding and supporting them are marked by these models. Moreover, the future of research on work in livestock farming is based on the capacity to integrate these three dimensions.

An organisation of the players to accompany the taking into account of work in livestock farms: from the Bilan Travail (Work Assessment) to the WLFN

Taking account of the specificities intrinsic to the theme of work and in particular the necessary multidisciplinary of the approaches are at the origin of a networked organisation, favouring better reciprocal knowledge of structures and people, sharing experiences and setting up joint projects. In return, the organisation, and in particular the constitution of the WLFN influenced the place of this theme and the way in which it is now tackled by extension and research.

The evolutions of the approach to work in livestock farming and the organisation of the players can be described in 3 successive periods.

The Bilan Travail method, a livestock farming system approach to building references, a partnership between Institut de l'Élevage, INRA and Chambers of Agriculture

The 1990s are characterized by the development of the « Bilan Travail » method (Work Assessment) (Dedieu et al., 1993, 2000) coproduced by the INRA and the Institut de l'Élevage¹, in response to demands from herbivore farmers in the mountains who considered global approaches to livestock systems to be incomplete.

The « Bilan Travail » method is based on a discussion with the livestock farmer to quantify the different work times by category of workforce. It identifies on the one hand the essential routine work carried out daily and which is difficult to put off until later, such as the daily care of animals, quantified in hours, and the seasonal work on the other hand, which groups together the tasks often organised as a combined effort, easier to defer or concentrate, in particular on crops and forage, quantified in days. Two categories of workforce are identified, the base group made up of permanent workers, and the workforce outside the base group which includes volunteers, mutual aid, paid employees and the intervention of contracting companies.

As a livestock farming system (LFS) approach to work, it produces indicators which take account of the various workforce categories and relate to the various types of work and variations in the farmers' room for manoeuvre in time. The Bilan Travail is then halfway between the « resource » and « organised » work models. The method is applied at grassroots level by advisers from the Chambers of Agriculture, mainly those of the Livestock Networks. It has also been implemented abroad.

For more than 20 years, more than 2000 Bilan Travail have been carried out in the herbivore sectors and have been the subject of regional and national syntheses, by sector and type of production (cattle or sheep, dairy or suckler ...). On the basis of information collected on the farm and references established in comparable farms, 300 advisers trained in its use are in a position to quantify the work on the farm and establish a diagnosis with the farmer, even to set up a support and guidance programme.

Higher education has been associated ever since the method was developed (ENITA of Clermont-Ferrand). A two-day seminar « Bilan Travail in livestock farms » was organised in 1996 in Clermont-Ferrand, testifying to the legitimacy of the creators and users to speak on the subject of work in livestock farming.

The Work Assessment results are discussed in the framework of farmer groups. The presentation of survey data as a group makes it possible to pass from the individual expression of "work problems" to the structuring of possible responses. These meetings can then be followed up by visits to farms to discuss the work organisation of each farmer in his own buildings. In other cases, thoughts are concentrated more on the joint employment of a paid employee or on the opportunity of modifying management choices (once-a-day milking).

Multidisciplinarity, the Rencontres de Poitiers, joint projects

In the years 2000, the complexity of questions about work makes it clear that multidisciplinarity is necessary in the approach to work. On the ground, advisers are discovering the limits of both the zotechnical approach and their skills to support livestock farmers. Work in livestock farming is a production factor, but also a combination over time of various tasks carried out by a work collective of variable size and composition. It is also real daily life associated with personal aspirations for spare time and free weekends. The model of "organized" work makes reference to it, but the opening up

¹ Institute of applied research piloted by livestock (herbivorous) farming professionals

only goes as far as aspects of physical hardness of the work and health, human relations between associates, etc. At local level, "new" contributors such as ergonomics and health and safety experts, sociologists, etc are asked to intervene in the farms, or sometimes with farmer groups in discussions or training.

At the Rencontres de Poitiers in 2004 co-organised by the two founding partners and widely open to research, training and extension, the political will was expressed to build a durable multi-partner network. This is a question of pursuing the sharing of experiences on a theme that undergoes no on station experimentation and requires incessant comings and goings between research and the grassroots.

The Institut de l'Élevage created a « Work theme area »² on its website, with the mission of circulating contributions from the different disciplines to a public of users that also reflected this diversity.

The Institut de l'Élevage and the INRA collaborated in a research project, « TRANS »³ in which more particularly work was carried out on the « subjectivity of work » model (Fiorelli et al., WS2.3 IFSA 2010) as well as the compared analysis of questions of work organisation (Cournut et al., 2009) and staff (Madelrieux et al., 2008), in countries of the South (Uruguay, Brazil, Vietnam, Senegal).

At the same time, the partnership makes it possible to have access to « Cas DAR » financing for a « theme network and pilot operations » project which amplifies thoughts on « work advice » in livestock farming, taking as a basis the activity of instructors and extensionists.

The first part proposes the sharing and diffusion of the approaches and grassroots experiences, in response in particular to the request of advisers in the farm, often isolated on the subject of work. A census of actions in progress on work in livestock farming produced about sixty descriptions of actions, and an assessment of experience on several of them identified difficulties and successes from the point of view of the players.

The second part groups 5 pilot operations together, with the following objectives.

- developing methods of supporting farmers more widely than just livestock research (advice in sheep breeding, advice in building) constructed in cooperation with the future users
- in the Pays de la Loire trying out multi-disciplinary support for farmers by interventions from pairs of specialists from different disciplines. A total of 15 dairy farmers were supported and guided by these specialists (advisers from Chambers of Agriculture, ergonomists and sociologists) organised into intervention teams for one to four meetings. The assessment underlined the satisfaction of the farmers helped in this way, their interest for cross-disciplinary consideration of their farms, and the essential role of a facilitator who coordinates and forms the link with the other contributors.
- writing a teaching work on the use of Bilan Travail in agricultural education published in a partnership between research (INRA), extension (Institut de l'Élevage), a teaching research centre (SupAgro Florac), and educationalists in CFPPA and Professional schools. The methodological aspects of the Work Assessment are presented and how it is set up in the teaching itineraries. In addition there is a range of teaching sheets on other intervention methods.
- lastly, a particular area of work was devoted to taking work into account during the period of preparation for installation as a farmer, because this theme has often been ignored in training schemes and by the candidates for installation. We return to this in the continuation of the text.

When it ended in 2008, the « Theme network and pilot operations » project with its two parts produced 10 publications, i.e. about 600 pages placed online on the Institut de l'Élevage website.

² http://www.inst-elevage.asso.fr/html1/spip.php?page=un_espace&id_espace=958

³ Transformation of livestock farming and area dynamics: www.clermont.inra.fr/add-trans/

The “Work on livestock farms” network (WLFN), a widened and institutionalised partnership

Since 2007, the official approval of the “Work on livestock farms” network in livestock farming has enabled the Institut de l’Elevage, the INRA and the Chambers of Agriculture to widen and institutionalise the partnership by involving about twenty partners in extension, research and education. In particular it integrates the grain-eating sectors (pigs and poultry) and offers a larger place to education.

The approval of the WLFN Travail gives recognition to organisations and persons involved as experts and resources on work, and legitimacy to productions and thoughts that have come from them. It is also a source of finance, mainly for running it (and a few actions for the first 18 months). Finally, the WLFN constitutes a means of approving projects presented in other contexts.

Three main lines of action are defined: support of pilot operations; the sharing of methodological experiences and reference systems; communication and transfer. We will return to the first of these in the following chapter.

Concerning the Reference System line of action, more than 600 Bilan Travail were carried out within the framework of the WLFN in 7 herbivorous and monogastric sectors, which required taking into account the specificities of pig or poultry farming managements, and dialogue with the agents of sectors almost exclusively turned towards the evaluation of work efficiency, on the " resource work " model. They made it possible to bring the reference systems in herbivorous farming up to date, and to constitute the first bases of comparison between sectors. Confronting the approaches between herbivorous and granivorous sectors proved to be an enriching exercise for all, but it was not always easy. Knowing each other, understanding each other and building joint references takes time, and the 600 Bilan Travail have contributed to it.

Concerning the Communication and Transfer line for action, the 3rd National Meeting: Work in Livestock Farming organized in Rennes in November 2009 brought together more than 200 participants, of whom about 50 had an active role in the proceedings as a speaker at a plenary session or as a workshop leader. The presence and intervention at the plenary session of partners of the TRANS project, from Uruguay, Brazil, Vietnam, made the opening up at international level come real.

These two days were an important occasion both for the visibility of the WLFN and its partners and for the richness of the contributions and exchanges between participants. Multidisciplinarity too was very much present, and in particular the question of its practical application and the interaction between several advisers in the same farm. The question of change of position regarding farmers was also at the centre of debates, in order to pass from providing technical expertise and instructions to listening, so as to help the farmer or the work collective to find ways of improving for themselves. These concerns require the acquisition of skills by training and give rise to requests for dialogue between fellow advisers and with the researchers and teachers of various disciplines.

A combined report of the workshops was thus produced on the spot and handed out at the end of the Meetings; it constitutes an interesting basis for future reflexions by the partners of the “Work on livestock farms” network.

Productions from these Meetings are gradually being made available in the Work theme area of the Institut de l’Elevage Website.

At the end of the first two years of the WLFN the assessment is positive. Many partners have worked in the preparation and running of the Rencontres de Rennes, proving in a very positive way their involvement in the WLFN. In their answers to the evaluation questionnaires, the participants in the two day conference expressed widespread satisfaction, in particular mentioning the importance of multidisciplinarity and the research-training-extension interplay illustrated by the diversity of the speakers and approaches presented. Two new partners joined the WLFN recently.

To envisage joint projects, by taking account of the specificities of each sector, whether they are related to livestock farming management itself or to the taking into account of the Work theme by

the players in the sector confirms the proverb according to which «partnership is not decreed, it is constructed».

Support and guidance to farmers on work

The actions to support livestock farmers in their thoughts on improving their working conditions are based on three entities which are the tools and ways of approaching work, the adviser who implements them and the advice programme.

A wide range of tools and methods

The multiplicity of questions about work gave rise to the development of a great variety of tools. The principal ones were described in a collection published under the aegis of the WLFN during the 3rd Rencontres Work in Livestock Farming (Collective Work, 2009). These approaches translate the will and the capacity of technical teams to adapt methods to farmer needs by taking as a base the 3 work models, "resource", "organized" and "subjectivity", on which there is consensus today.

Evolutions in recent years show a more global approach to work in the farm and the taking into account of its multiple dimensions (Kling-Eveillard, 2009). The questions tackled in support and guidance, always partly centred on the quantification of the working time (on the basis of the Bilan Travail method in particular), also deal with the allocation of tasks within the work collective, the management of paid staff, the administrative work, the hardness of the work, etc. Tools for diagnosis have been constructed around these themes.

At the same time, with the objective of adding support to advice and allowing farmers to compare themselves with others, solutions have been worked out for improving the work or the reference systems on working times.

The evolution of the approaches also affects the public for whom it is intended. Whereas the first tools aimed at improving the situation of existing farmers, the following also concern future farmers, advisers in training (Bishop et al., 2008), like the young people who have set up business, in boxed text 1 below (Chauvat and Servièrè, 2009).

Questioning can be partly closed and quantitative when it relates to the production means or the working times. It becomes open and qualitative to deal with what is felt and clarify factual data by the real life experience of the farmer.

Boxed text 1

The EPI work model : A tool to help newly installed young farmers to anticipate organisational problems

Newly installed farmers often encounter work problems during the first few years: insufficient technical skills, materials and/or buildings that are not yet functional, health problems, outlets to be found...

During the farming training and installation process, work is still a subject that is not often tackled. The study preliminary to installation usually only takes the technical and economic aspects into account.

To enable the agricultural adviser to encourage future farmers to integrate work into their strategic choices and to help them to anticipate their problems of organisation, the EPI work proceeds in 3 stages:

- Collection of information by the adviser during the first semi-directed interview: presentation of the new farmer and the farm, workforce, farming and non-farming activities
- Analysis and drafting of a synthesis
- The handing over of conclusions to the farmer and the start of advice process.

The method suggested takes the activities of the farmer into account (including his private activities) all through the farming year, as well as the workforce on the farm (including volunteers and people who contribute work occasionally).

The analysis is rather qualitative because it is not possible to quantify working time precisely before the farmer is installed.

Faced with new questionings associated with the diversity of themes tackled, taking personal factors and the global vision of the farm into account, advisers have been led to modify their intervention methods.

Change of position of the advisers

Adviser competence profiles have widened and become more complex. The adviser used to be considered above all as a technical expert who had to transmit knowledge and practices to the farmers.

To support and guide the farmer on work implies an interactive relation rather than the provision of references to deal with the particular situation of the livestock farmer (Cerf and Maxime, 2006). The term «coproduction of advice» is then used, consisting of mobilizing a farmer's cognitive resources to help him to formulate a problem and devise one or more solutions. Work advice concerns both the adviser with a profile that is technical, technical and economic or specialized by sector, and the general adviser with a more overall view of the farm or players with new specialities such as the management of human resources or conflicts, ergonomics, etc.

Multi-disciplinary support and guidance associated with work were set up in the Pays de la Loire region with fifteen dairy farmers (Sabatté and Huchon, 2009). The general adviser had the role of facilitator and organised the participation of experts. Critical observation of these experiences shows the interest of interventions with multiple and complementary skills but raises the question of relations between organisations, a potential source of competition, and the cost of the work carried out by several advisers.

Whatever the method employed, the problem identification phase and the co-construction of improvements lead advisers to develop an attitude of active listening favourable to the expression of farmer needs. The objective is to guarantee a shared vision of farmer problems without imposing the analysis model specific to the adviser. This position initially weakens the adviser who must justify his advice action with the farmer on new bases.

There is not just one form of support and it is required to adapt to a diversity of demands and a plurality of roles (Tellier, 2009). In a support and guidance process, it is important to work as a network to pass information on to other specialists. The relation of ascent between the adviser and the farmer becomes equal and symmetrical (Paul, 2004). The adviser must commit himself, discreetly, adjust and change register. He shows empathy and his position presents a dual character, both as a facilitator and an expert.

To venture onto the terrain of work requires such control of the guidance processes, that even equipped with tools and methods, certain advisers feel a real need for reassurance both on the relational, organisational, sociological or ergonomic aspects and on their capacity to support the farmers.

Importance of the advice programme

The analysis of the implementation of advice tools on work in livestock farming (Renard, 2009) shows the need for sensitizing, informing, and training advisers in the tools and methods of approach to work. However, training is not always sufficient for a correct appropriation which would guarantee effective development at grassroots.

The advisers are confronted by difficulties of emergence of demand. The farmers do not always identify their technician as a qualified and legitimate adviser on work or do not perceive the questions they raise as being able to be solved by an organisational input.

Moreover, although responsible professional farmers often present work as a priority, the agricultural organisations do not always deploy sufficient means to respond. The advisers seldom

consider themselves as legitimate and recognized by their structure during "work" technical support, which is often time-consuming with improvements which are difficult to evaluate.

Effective work advice supposes the installation of a multi partnership structure (Béguin, 2009), driven by a strong political will, in order to guarantee the production of methods shared by all, to organise the mobilization of the advisers and structure their interventions, at the same time providing them with a support structure (training, sharing experiences, etc). The organisational scales of these structures are very diverse, from the very local to the large region (see boxed text 2 below) and alternate phases of communication and diagnosis, actions of individual advice and recourse to participative methods favouring involvement and dialogue between farmers. Specific actions are set up for the advisers, either to encourage them to pass on farmer requests or needs for support, or to train them to intervene and guide them in the change of position. The presence of an organiser leading the project, and financial support are often announced as decisive elements for the success of these arrangements.

Boxed text 2

Vivre l'Élevage en Picardie (VIP, Living Livestock Farming in Picardy): a regional programme whose construction is based on a widespread partnership

The VIP programme was set up in 2006 following a prospective study on the evolution of livestock farming (chambers of agriculture, milk recording organisations, meat producers' organisations, dairies, trade unions, farming financial management centres, and regional administration). The involvement of bodies in the prospective diagnosis, the sharing of challenges and joint objectives, the financial support of a territorial authority favoured the membership of all the players.

Several surveys aimed at knowing the diversity of expectations and farmer motivations concerning work made it possible to convince the members of the necessity of acting on work.

Several operational tools were produced: a directory of resource persons, a leaflet for raising awareness: "work : where am I placed?", cards and videos on work solutions, reference systems of work times, thorough diagnosis on work, etc. so as to cover all the aspects of the work theme.

The VIP programme is being evaluated in the spring of 2010, concentrating in particular on surveys with advisers and farmers, in order to assess the initial effects of the action and envisage future adaptations to the programme.

In making up the tools, in experiments and in thoughts on the position of advisers or the programmes, players in research and extension, even in teaching, became associated together and crossed-checked their observations. The "Work on livestock farms" network provided a framework for these collaborations and made certain actions (census of experiences, evaluation of programmes...) possible by financing them.

It thus contributed to making advice tools by sector or theme (see above) but also helped the creation and implementation of advice programmes on a regional scale. It is a question today of extending them to other regions and thus of contributing to making the work of the farmer more attractive.

Discussion and perspectives

The theme of liveability in livestock farming and the work issue bring into question the skills and working methods of extensionists because they create an explicit interface between social sciences and technical sciences. Moreover this situation does not lend itself to the usual «top down»: « research creates knowledge, innovates and extension transmits ».

The question of work, at the beginning of the co-operation process that gave way to the creation of the RMT, was a preoccupation in the field of social sciences and particularly of the economy (Landais and Bonnemaire, 1996). The emergence of a « livestock farming system » (LFS) approach, built on the coupling between the human and technical dimensions of livestock activity (Gibon et al., 1999; Dedieu et al., 2008) widened the vision of the farmer to other expressions that that of an optimising

economic rationality (Petit, 2006). Expectations with respect to work (quantity, rhythms, work–not work separation, meaning given to work) were then integrated as determinants of how livestock farming systems function. This LFS research also made it possible to think of technical choices, not only as the source of a demand for work, but as a component of the « work system » (Dedieu and Servièrè, 2009). These technical choices can be adjusted, adapted and simplified according to the distribution of work between the people of the workforce collective whether they are permanent or not (Madelrieux et al., 2009).

This culture of the « livestock farming system » approach opened up to social sciences was supported jointly by the founding partners who then managed the opening up in particular towards ergonomics (which conceptualises these man-technical task interactions) and sociology (which questions work values in social dynamics).

Underlining the singularity of the view the livestock farmer has of his work leads to not reducing the debate to the economic efficiency of work or to supply by the search for innovative techniques, which extension ought to diffuse. This singularity of the farmer is dual: on the one hand work makes it possible for everyone to create himself in the relational and identity fields according to his past life, to his experience etc. on the other hand, the combination of family activities and expectations regarding "not work" (spare time) acts on the rhythms and time of working on the livestock farming, according to very variable methods. Thus, technical solutions must be considered with the people who implement them. The work theme suggests new collaborations constructed around reformulations of questions of work according to the workforce collective, the combinations of activities, the expectations of each; and a development of techniques and innovative systems thought out in reference to their plasticity (Beguin, 2007).

The WLFN system is confronted with the challenge of developing agent skills on a subject that agent training and the institutional culture have reduced to its productivity component: despite the slogan of making farms "viable and liveable" as a purpose for extension, from the eighties until now, the real translations of liveability into work approaches and extension methodologies has been difficult. It is a question of accepting the idea of a multi-faceted theme, where the coordination of competences centred on techniques counts just as much as listening to farmer aspirations, and where time spent maturing a theme which touches people at the deepest part of themselves also counts, whereas everywhere the objective is the service that pays, therefore rapid.

A few paths for the future

Two major sections for the continuation of R&D partnership on the work theme can be distinguished:

- one is centred on the transformations of livestock farming, changes in the family-farm system, working conditions, liveability as a central element for reproducing livestock farming systems, in a movement where work collectives are diversifying in their composition, their combinations of activities, their conceptions of work and their organisation (Fiorelli et al., 2007; Rault, 2005; Dufour et al., submitted);
- the other is centred on the adaptation of the systems to world issues (double the production to feed world humanity and reduction with the same coefficient, of the negative impacts of agriculture on the environment), and to society, market and sector pressures. Work can be a limiting factor for the adoption of techniques (Hostiou and Dedieu, 2009), and the innovative technical programmes to be constructed will be comprised of elements of work productivity, organisation and subjectivity.

These two facets of the debate on transformations in livestock farming, one relating to changes in the family–farm system, the other to society pressures, represent a future issue for the WLFN. It must develop an approach of support and guidance for these evolutions, which requires multidisciplinary between technical and social sciences to be taken much further, as well as

interactions between research and extension, and also for there to be better account taken of the work dimension in the integration of new techniques, technologies and organisations.

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