
Planning experience of Animal I&R and livestock development projects in Central and Eastern European Countries

F. Schmitt

¹*ADT Projekt GmbH, Adenauerallee 174, 53113 Bonn, Germany
E-mail: ferdinand.schmitt@adt.de*

The introduction of a new food safety policy in the EU member states has also initiated a new priority for technical assistance to neighbouring countries emphasizing the strengthening of the public food and veterinary services in order to assure future market access. Projects or project components cover for example the harmonisation of the food and veterinary legislation, the institution building of relevant public services and the modernisation of veterinary and food laboratories. Within these projects the introduction of an EU compliant Animal I&R system turned out to be among the most important projects, which are complex and require a careful phasing of the project activities in a planning, preparation and implementation phase. Due to less favourable livestock production conditions in some of the Eastern and South Eastern European Countries the technical and physical efforts needed to achieve a successful operation of the system are significantly higher than in EU member states. As straight forward take over of I&R systems operating successfully in the EU may fail in these countries, transitional arrangements until full EU membership have to be considered.

Apart from the doubtlessly necessary technical assistance for Animal I&R more attention should be given to the private actors in this sector to support their efforts to comply with the new safety and quality requirements. Technical assistance projects emphasizing the strengthening of livestock recording and the quality improvement of animal products look very promising as they can technically be built up on the Animal I&R system and provide the mutual benefit of system sustainability.

Keywords: food, veterinary, legal approximation, Animal I&R, traceability, animal identification, animal registration, recording, TA projects.

Summary

Introduction

The BSE outbreak forced the European Union to formulate a new food safety policy with an integrated approach for the safety of products of animal origin, the so called “from stable to table” concept. This policy requires a significant strengthening of the public food control and veterinary services and is aiming to maintain consumer confidence and to ensure an effective functioning of the internal market of the EU. However, while applying these systems throughout the EU it became obvious that they also are imposed on third countries exporting live animals or animal products to the EU. In a first wave this was imposed on the ten new member states but was extended meanwhile to the new neighbourhood regions of the EU in the South and East. In the long-term view it can be expected that the implementation of this concept is more or less an obligatory need for any country which maintains trade relations in livestock and animal products with the EU.

Technical assistance (TA) programmes and projects of the EU and of other donors have followed this policy and became very active in the field of the legal and institutional adaptation of the livestock and animal food sector. Relevant projects covered areas such as the approximation of the food and veterinary legislation, the strengthening of public veterinary services, the procurement of equipment for food and veterinary control, the training of public veterinary officers and the reconstruction of border inspection posts. Even though this kind of technical collaboration is more or less finalized in the new member states it is still on-going in South Eastern Europe as well as in the other neighbouring regions, such as Northern Africa and the Caucasus. Examples of implemented, on-going and planned projects in this field funded by the EU can be found on the EU website: <http://europa.eu.int/comm/europeaid/cgi/frame12.pl>

Within these projects the introduction of an EU compliant Animal I&R system turned out to be projects of major priority. The registration of holdings, animals and animal movements is a basic function for an efficient animal disease monitoring, control and eradication programme and is a fundamental part of any veterinary information system. It allows the tracing of an individual animal from birth to slaughter and can serve as a basis for the traceability and food safety for products of animal origin.

Planning of animal I&R projects

Consultants are frequently contracted by donors to assist in the planning and implementation of an Animal I&R system. Animal I&R projects are complex and are typically require several man-years of work to complete. The implementation of such systems requires a sound legal, organisational and operational basis with adequate human and financial resources, as well as an adequate IT-system for data entry, validation and correction, data storage and for providing information to farmers and veterinarians.

The complex structure of an Animal I&R system requires a careful planning and preparation beforehand as there is only little possibility for modification and adaptation in a later stage of implementation. Ideally a project on Animal I&R system implementation should consist of three phases: a planning phase of around 6 to 9 months, a preparation phase of at least 12 months and an implementation phase for the system roll-out which should be supported and accompanied by a TA project for another year to achieve a sustainable operation of the system.

Table 1 shows the major tasks and activities which can be attributed to each phase. The planning activities of **Phase 1** should be based on a strategic plan with a long-term perspective for the inclusion of all animal species which are likely to be regulated, i.e. the ruminant species cattle, sheep and goat, but also pigs, poultry, bees and possibly animals of the equidae species. It should also focus on the multiple uses of an I&R information for movement control, disease surveillance, food safety control, premium administration – if any – and for statistical purposes.

The overall strategy shall impact upon the medium to long term development of the relevant Government and beneficiary institutions including the legislative programme, the planning of the system roll-out and the allocation of budgetary means. While there is a good opportunity to cover the investment and initial costs to a certain extent by TA and procurement projects of international donors, the costs for the maintenance and operation of the Animal I&R system have to be financed from sources within the beneficiary country. It is recommended that in the initial phase a major part should be covered by the national Governmental budget, but it is reasonable to increase step by step the share of farmers and other stakeholders.

The planning of the I&R system design and operation requires the simultaneous provision of specialised international and local expertise such as in legislation, I&R operations, economics and IT. The Consultants together with the Beneficiary have to develop an efficient, coherent and stable plan which meets the expectations of the donor and compromise with the specific situation in the beneficiary country and the availability of technical, physical and financial resources.

The preparation phase (**Phase 2**) includes activities related to the procurement, installation and testing of the IT system, the procurement of animal I&R items, the set-up of the I&R unit and the training of all partners involved in the system. Further, a communication strategy has to be implemented which should include publicity measures and information via the media and other appropriate channels.

The system-roll out (**Phase 3**), i.e. the beginning of holding registration, ear tagging and animal registration should start on a definite date. Even when a stepwise approach by regions is recommended national coverage should be achieved latest within one year. Otherwise responsible actors and/or inspectors as well as other involved system partners may get confused by relevant obligations and the reputation of the system may be endangered from the beginning. TA projects should not end

Table 1. Phases of an Animal I&R project and major activities.

Project Phase	Activities
<p style="text-align: center;"><i>Phase 1 Planning</i></p> <p>6 – 9 months</p>	<ul style="list-style-type: none"> • Formulation of a strategic plan for the development of an Animal I&R and movement system, determination of the Competent Authority. • Review current veterinary legislation on I&R provisions and creation of a legal base for I&R system implementation. • Planning of the establishment of appropriate institutional and management structures and processes. • Planning of the financial budget and methods of financing the I&R system on a sustainable basis. • Creation of operational procedures for holding census, I&R data collection and data entry, development of a coordinated system of information flow and reporting and design of the computer network. • Definition of a numbering system for holdings and animals and design of on-farm registers and cattle passports, creation of operational procedures regarding ongoing supply, distribution and application of ear tags.
<p style="text-align: center;"><i>Phase 2 Preparation</i></p> <p>12 to 15 months</p>	<ul style="list-style-type: none"> • Preparation of technical specifications and cost estimates for computer hardware and software, operation and/or maintenance of the IT computer centre, and other materials required at central and municipal levels. • Procurement of Animal I&R items: hard- and software, eartags, forms. • Hardware and software installation, customisation and testing at national and field levels. • Going live of the Animal I&R IT system and preparation of technical and user manuals. • Preparation of a communications strategy and undertaking of publicity and information, via the media and other appropriate means, to all participants including farmers, slaughterhouses, markets etc.. • Set-up I&R unit and training of all those involved in the system: I&R system management, data entry, help-desk, field operations for ear-tagging and data collection and data collection in slaughterhouses.
<p style="text-align: center;"><i>Phase 3 Implementation</i></p> <p>On-going, ideally with 12 months project support to achieve sustainable operation</p>	<ul style="list-style-type: none"> • Holding registration, ear tagging and animal registration • Establishing sustainable ongoing operations including I&R control.

immediately with the beginning of the system roll-out but should accompany the beneficiary to establish sustainable on-going operations including I&R control.

Compared to EU member states different socio-economic conditions apply for most of the beneficiary countries in South Eastern Europe. Other complications may arise from different farm structures, different processing and marketing channels, different organisation of livestock and veterinary services, different professional skills of the keepers, other communication facilities or limited financial means etc. Therefore straight forward extension of domestic I&R systems which are successfully operating in EU member states may fail. It is recommended to develop a tailor made approach for each country taking into account the special country conditions for setting up the system. According to the experience gained by us in previous and on-going projects the following specific aspects are of extraordinary relevance and should be considered in the planning phase of an Animal I&R project:

According to the EU Acquis on I&R it is clear that the keeper always takes responsibility for the correct application of the identification within his herd. However, the small farm structure or missing skills of the keepers may require the competent authorities to commission the I&R services to 3rd parties as otherwise the system will not function at all. I&R service providers may comprise veterinarians, AI or recording staff or trained staff responsible for certain defined holdings or regions. In principle, there is no preference of any of those subgroups as far as easy and continuous access to the keepers is ensured. However, it has to be analysed which sub-group is able to cover certain regions and may guarantee the visit of each livestock holding in the region. Further, the combination with other routine tasks such as vaccinations and blood sampling has to be considered and may have a significant impact on the cost for each visit. In any case it should be avoided to design I&R as a job machine for any field service as the cost effectiveness is very important criteria if farmers are expected to contribute to the costs of the system.

In case I&R services are committed to 3rd parties automated data capture with PDA devices becomes the more effective option compared to a paper-based data capture system. In this regard, data capture by handwritten forms is more risky as an average error rate of about 3% per character applies in practice. Further, paper-based systems are susceptible to significant delays between data capture and data entry in the central database. On the other hand, automated scanning of the holding - or animal's information from appropriate barcodes allows for

Specific conditions in the countries of South Eastern Europe

Tagging by veterinarians or personnel of other support services versus tagging by farmers

Automatic versus paper-based data capture

almost error free data capture. In case that the service providers are equipped with expensive devices such as Pocket PCs, scanners and communication lines to the central data base, the number of service providers must be limited in line with the available budget.

Transitional arrangements for tagging and registration procedures

According to EC Regulation 1760/2000 bovines have to carry ear tags not longer than 20 days from the birth of the animal or in any case before the animal leaves the holding on which it was born. Once the computerised database is fully operational the livestock farmer has the obligation to report to the competent authority all movements to and from the holding and all births and deaths of animals on the holding, along with the dates of these events within an upper limit of 7 days of the event occurring.

The specific conditions of the countries of South Eastern Europe with small livestock farms, low density of cattle and a high share of home slaughtering with a preference to slaughter young calves of 1 to 2 months may justify a transitional arrangement for the periods of reporting and ear tagging of new born calves. For example the livestock farmer could be exempted from the reporting obligation if the new born calf is home slaughtered at an age of less than 60 days and consumed on the farm and the calf is not leaving the holding. At the same time the period for ear tagging could be extended to a maximum of 60 days after birth. In any case the animal needs to be tagged before leaving the farm. However, the keeper of the animal remains responsible to keep an up-to-date holding register containing all information concerning births and movements. Such a transitional arrangement should be limited latest up to the time of full membership of the country in the EU.

It is obvious that in countries with a share of home slaughtering of bovines of more than 80 % and a share of home slaughtering of young calves of more than 40 % such a transitional arrangement would have an enormous effect on the overall system costs. Further, by extending the period for tagging the visits of the veterinary technician for ear tagging can be more easily combined with other tasks and would reduce the costs for the visit to a specific farm. Such transitional arrangement may help the countries of South-Eastern Europe to make Animal I&R feasible and sustainable, and this would partly compensate them for their significantly higher efforts needed to achieve a successful operation of the system than in EU member states.

Software development versus software procurement

Development of software for registering the animals in a central database and including all movements up to the animal's death in principle sounds very easy. Therefore, the beneficiary countries mostly opt for an own software development in the first instance as it was mainly done in the EU member states. However, if the software functionality is analysed in detail, it becomes apparent that the development is a highly sophisticated

approach and requires many man years for successful completion. Therefore national attempts – this shows also the experience in member states - to develop own software are often delayed or have even failed.

With regard to the mostly tight time schedule of an Animal I&R project in so-called third countries to the EU, there is a strong preference from procuring appropriate software packages from the market. However, the participation in this tender should be limited to software companies which have successfully developed and introduced a reference installation in another country to demonstrate their capability to do the job.

Assuming that a successful implementation of an Animal I&R system is on its way livestock development projects could come again more into the focus of the donors aiming at the support of the private actors in this sector, i.e. the livestock producers and food processors in their efforts to comply with the new legal framework and the safety and quality requirements. This aspect is of particular relevance under the different socio-economic conditions of the countries of South Eastern Europe where small scale farm structures prevail.

TA projects in this field should not only be considered if export market opportunities are envisaged but also the future competitiveness of the local production in the domestic market has to be taken into account. Projects in this field may cover the following subjects:

- Strengthening of livestock breeding and recording systems including private breeders associations.
- Set-up and strengthening of agricultural and livestock advisory services.
- Set-up and introduction of structural funds programmes for investments in agricultural holdings and the primary food processing industry.
- Initiation and support to producer groups for animal products and dissemination of relevant production and product standards.
- Introduction of product labels for PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication).
- Introduction of marketing concepts for the export of animal products.

TA projects emphasizing the strengthening of livestock recording and quality improvement of animal products look very promising as they can be built up technically on the Animal I&R system by using the data of the holding register and the individual animal information. At the same time those projects return also a benefit for the operation of the Animal I&R system as they support its stability and sustainability.

Planning experience of Livestock Development Projects
