1. Basic information
1.1. Desire number: PL01.04.03  
   Twinning number: PL/IB/2001/AG/03
1.2 Title: Farm standards
1.3. Sector: Agriculture
1.4. Location: Poland

2. Objectives
2.1. Wider objective
Improvement of the quality and effectiveness of agricultural production by modernisation of farming in the context of implementation of aquis-communitaire requirements to Polish regulations regarding to animal production.

2.2. Immediate objectives
Preparation and dissemination of technical solutions for animal production facilities (for various species and categories of farm animals) according to EU requirements (among other regulations mainly given by European Convention on protection of breeding animal, DIRECTIVE 88/166), DIRECTIVE 91/629, DIRECTIVE 91/630 and Dec. R 78/923) and in effect implementation of these solutions.

2.3. Accession Partnership and NPPM priority.
AP: Short-term priorities: “further elaborate and implement rural development plan on a sustainable future for the Polish rural economy including measures dealing with the modernisation of farming and related industries, administration of agricultural lands including the issue of leasing, accompanying social measures, and raising public awareness on the future of farming in rural communities”.
NPPM: Actions concern the implementation of rural development plan and agricultural policy, described in the strategic document ‘Coherent Structural Development Policy for Rural Areas and Agriculture’. This document provides for the modernisation of farms, including activities for the protection of animals, improvement of animal welfare, breeding hygiene and production technology quality standards, and environmental protection, as the directions of the state policy. The modernisation of farms based on aquis-related standards regarding the environment, hygiene and animal welfare is one of the most important condition for the implementation rural development plan in sustainable way. Comprehensive requirements for farm standards will be formulated in Polish regulations (in progress of harmonisation with aquis communitaire) and treated as obligatory specifications for farm modernisation supported from public aid (SAPARD, state aid).

2.4. Contribution to the National Development Plan (NPR) - N/A
2.5. Cross Border Impact - N/A

3. Description
3.1. Background and justification
New regulations are being introduced in Poland in order to harmonise Polish law with EU standards on quality, hygiene, environmental and animal welfare. These will result in increased need for capital investment in agriculture prior to EU integration. At present there are no formally significant standards concerning farm buildings and accompanying facilities, that would take into account the needs of animals, the people taking care of them, problems of the natural environment protection and all the regulations connected with these issues. In 1970-1990 “Technological directives for designing poultry farms and farm buildings for cattle, pigs, poultry and sheep” were binding. They lost not only their formal significance but also got out of date because of transformation in the economy, technical progress and changes in regulations which had already taken place and which will have to take place in result of EU integration. The polish law for animal protection obligates producers to assure correct conditions for breeding and animal husbandry. This law also obliges the Ministry of Agriculture to qualify detailed conditions for keeping certain farm animals. The will result in a complete and coherent set of technological directives for designing poultry farms and farm buildings for cattle, pigs, poultry and sheep. It is very important because the main condition for investments in agricultural holdings is the aquis-related standards regarding the environment, hygiene and animal welfare which are introduced at the time of application for grant from public aid is received and have to be met by the holding at the end of the realisation of the investment. Fulfilment of standards prepared under the project will be a condition for granting public aid for investors. Progress in farm animal breeding resulted in better knowledge of the environmental needs of animals and their genetic improvement. Economic transformation in farms
became the basis to develop new farm technologies. Properly developed functional and space arrangement of all elements of farm buildings, with the use of mechanisation, have impact on the efficiency of animal production. The majority of farm buildings used in the Polish agriculture, in particular cowsheds, do not meet the requirements of contemporary technologies and breeding mechanisation. A large part of these buildings need urgent modernisation to improve functionality, upgrading technology and increased mechanisation as well as ensuring appropriate environmental conditions for animals. Newly built farm buildings often do not meet the requirements of modern breeding technology as they have functional and microclimatic defects. Work is underway at the Institute of Construction, Mechanisation and Electrification of Agriculture in the sphere of technology and mechanisation of milk production in farms that keep large herds of cattle, with the use of foreign research and construction materials. The research related to buildings and was carried out in farms specialised in the production of milk, slaughter cattle or poultry. This work concerned e.g. the influence of technological and functional solutions relating to cowsheds on energy and economic outlays in the production of milk and slaughter cattle. For many years work has also been carried out to adjust new pro-ecological and energy-saving animal breeding technologies, taking into account EU requirements in the sphere of environment protection and the well-being of animals, and adjusted to the planned changes in the structure of Polish farms. On the basis of EU directives, adapted design is introduced for poultry breeding on big scale, counteracting group stresses that result in cannibalism, pterophagia and aggression. Technological directives for the design of farm buildings for cattle, pigs, sheep and poultry were worked out in the Central Designing-Research Office of Rural Construction “BISPROL.” These directives need to be updated, to take into account the achievements of contemporary science and technology, and of EU requirements. Work within the project will be based on the regulations of the European Convention on protection of breeding animal, DIRECTIVE 88/166 (Defines minimum norms for the protection of laying-hens in cages in battery system), DIRECTIVE 91/629 (Defines minimum norms for calves protection), DIRECTIVE 91/630 (Defines minimum norms for pig protection) and Dec. R 78/923 (Concerns the conclusion of the European Convention for the protection of animals kept for economic reasons).

3.2. Linked activities
So far, no actions have been undertaken in the design of technological standards in animal production. Aid under SAPARD programme will be directed towards supporting the adjustment, to the acquis and Single Market conditions, of those farms with the capacity to operate viably in the future, but unable to undertake the necessary capital investment without public support. Measure 2 (SAPARD) will be undertaken by supporting investments in agricultural holdings in the form of grants partially reimbursing investments costs. This kind of support for farmers is not provided for PHARE project “ Farm Standards”.

3.3. Results/outputs
The technological and technical standards prepared and disseminated under this project will ensure the following benefits:
For farmers: enable a rational selection of pro-ecological and energy-saving animal keeping (for appropriate species and categories), depending on conditions resulting from financial and environmental limitations of a given farm and region; enable a correct selection of technical parameters for technological solutions for farm buildings in accordance with the law on animal protection (of 21 August 1997 Journal of Law No 111 item 724) and with EU directives; enable a correct preparation of application for grant from public funds.
For different level of farm service: create training material helpful in disseminating agricultural progress and promoting modern technologies; facilitate supervision over the implementation of appropriate solutions of farm buildings adjusted to EU requirements.
For central and regional administration: support decisions in approving investment activities of farmers undertaking animal production according to EU standards.
For designers: equip with appropriate materials helpful in designing.
The following outputs will be achieved:
Prepared detailed conditions for keeping particular group of farm animals.(coherent with regulations given by European Convention on protection of breeding animal, DIRECTIVE 88/166), DIRECTIVE 91/629, DIRECTIVE 91/630 and Dec. R 78/923) - Work done within the project gives needed complete and coherent set of technological directives for designing poultry farms and farm buildings for cattle, pigs, poultry and sheep and horses : norm of technological construction and installation solutions for farm buildings and accompanying buildings will be worked out for various group of animals; recommended feeding systems, depending on a category and technological groups, will be defined; recommended technological standards for pen cow-sheds for a transition period will be worked out as well as for no-pen cow-sheds in accordance with EU directives; parameters for pens will be defined with
the selection of various lairs in cow-sheds for cows, in heifer-sheds for heifers, in calf-sheds for calves
and for meat cattle in their sheds; technical parameters will be defined for cattle bred in a group system;
basic technical and technological parameters of cow milking in pens and milking halls will be worked out;
technical and technological parameters of preliminary milk treatment and preparation of milk for
transport will be worked out; technical and technological parameters for fodder (bulky feed and
concentrated feeding stuff) storing will be worked out; fodder distribution systems will be worked out
depending on the size of a herd in a farm and the breeding system; systems of removing, storing
and agriculturally using excrements will be worked out; technical and technological parameters for retrieving
heat energy from exothermic processes going on in deep bedding material depending on the kind of
heat exchanger will be worked out; technical and technological parameters for limiting ammonia
emission during obtaining and accumulation of fermentation heat will be worked out.
In effect of the project dissemination and implementation will be worked out: broad design solutions for
farm buildings and accompanying buildings; technological, construction and installation solutions for
farm buildings and accompanying buildings; standards for different systems of breeding of individual
animal species and categories; technological standards relating to environment conditions for different
kinds of animals; recommendations relating to technological elements for individual kinds of animals,
that is boxes, corridors, unit spaces and cubage of production facilities; milk obtaining and preliminary
treatment systems; feeding systems (preparation of fodder and feeding); and liquid excrements and
farmyard manure removal systems.
Well trained people from associations of animal breeders, producer groups, agricultural service and
designers at all level.

3.4. Inputs
Work will be done in 5 groups: cattle (meat, milk production), pigs, poultry, sheep and horses, co-
ordinated by long-term expert. Each group will consist of polish and short term foreign specialists.
**Twinning activities.** The following activities will be implemented in the framework of twinning covenant:
Analysis and studies UE regulations and standards on the issue; Collection and analysis of materials
from catalogues, technological designing directives, individual technical projects and results of research
work from Polish institutions dealing with the issue; Purchase of computers and computer programmes
which are needed for design work; Collection and analysis of technological and technical materials of
designing with the EU (norms and directives); Verification of analysed materials; Working out of Polish
technological standards, construction and installation Polish standards, standard quality for solutions
relating to farm buildings, and standard quality for solutions of accompanying buildings (silos, manure
pits, fermented liquid manure tanks, composting plants, biogas plants).
in accordance with EU law by implementation EU standards (mainly regulations given by European
Convention on protection of breeding animal, DIRECTIVE 88/166), DIRECTIVE 91/629, DIRECTIVE
91/630 and Dec. R 78/923) taking into consideration Polish specificity and results of Polish research
work
Dissemination of modern solutions relating to farm buildings and accompanying buildings, (prepared in
the framework of the project) including training of associations of animal breeders, producer groups,
aricultural service and designers at all levels Polish experts supported by short-term foreign experts
during 2 days courses will train about 150 people.
The work performed by the long- and short-term experts will be used to create technical solutions for
animal production facilities (for various species and categories of farm animals) according to EU
requirements, and disseminated.
PAA (12 months). Expert’s profile: knowledge of technical solutions for animal production facilities
according to EU requirements and regulations connected with environment protection in UE.

4. Institutional framework
The results of the project will be made available to agricultural authorities and local government bodies
responsible for the restructuring of agriculture and to all concerned.
The following parties will take part in the project: Ministry of Agriculture and Rural Development, Institute
of Construction, Mechanisation and Electrification of Agriculture in Warsaw (IBMER), and Central
Designing and Research Office of Rural Construction in Warsaw (BISPROL). IBMER: state body under
the supervision of the Ministry of Agriculture and Rural Development concerned with designing new
technologies of animal breeding, research of farm buildings and related technologies, as well as
implementation work and dissemination of knowledge. IBMER co-operates in the field of implementation
and dissemination with agricultural advisory centres, agricultural chambers and local governments.
BISPROL: a state body connected with designing and implementation of construction and installation
standards in farm buildings in agriculture.
5. Budget (M€)

<table>
<thead>
<tr>
<th></th>
<th>IN</th>
<th>IB</th>
<th>Total PHARE</th>
<th>Polish co-financing</th>
<th>IFIs</th>
<th>Total</th>
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</thead>
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<td>Contract 2 – Equipment</td>
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<td>0.1</td>
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<tr>
<td>Total</td>
<td>0.1</td>
<td>1.9</td>
<td>2</td>
<td>0.5408</td>
<td>0</td>
<td>2.5408</td>
</tr>
</tbody>
</table>

The co-financing funds for the project implementation will be available.

6. Implementation arrangements

6.1 Implementing Agency

CFCU “Fundusz Wspolpracy”, 00-400 Warszawa, 6/12 Nowy Swiat St. Mr. Wojciech Paciorkiewicz (tel. +48 22 661 79 27, Telefaks: +48 22 661 72 26) will be responsible for the organisation of tenders and making payments in accordance with PHARE twinning procedures. PAO: Undersecretary of State at the Office of the Committee for European Integration Mr Paweł Samecki, Aleje Ujazdowskie 9, 00-918 Warszawa. Tel.: 48 22 455 52 41, Fax.: 48 22 455 52 43.

6.2 Twinning

Project will be implemented according to the twinning procedures.

PAA (12 months) – Expert’s profile: knowledge of technical solutions for animal production facilities (for various species and categories of farm animals) according to EU requirements and regulations connected with environment protection in UE. Short-term experts from institutions specialised in modern technological systems. The following institutions will be beneficiaries of the project: Ministry of Agriculture and Rural Development, Institute of Construction, Mechanisation and Electrification of Agriculture in Warsaw (IBMER), 32 Rakowiecka str., 02 - 532 Warszawa, tel. 00 48 22 849 17 36, fax 00 48 22 849 17 37 Contact person - Doc. Dr hab.Waclaw Romaniuk, Central Designing and Research Office of Rural Construction in Warsaw (BISPROL).

6.3 Non-standard conditions: the project will strictly follow DIS rules.

6.4. Contracts.

Twinning: 2.440.800 EUR (1,9 MEUR – Phare funds; 0.5408 MEUR – national budget)

Equipment: 100.000 EUR

7. Implementation schedule

7.1. TOR preparation: September 2001

7.2. Start of project activity: January 2002

7.3. Project completion: December 2003

8. Equal opportunities

All activities of the project respect equality between men and women. The project ensures equal participation in work on standards and dissemination work for men and women.

Training courses will allow equal participation men and woman.

9. Conditionalities and sequencing

Implementation of EU requirements into Polish law will proceed parallel with project realisation which assure cohesion of Polish regulations with specific EU solutions dealing with technical and technological solutions for animal production facilities (for various species and categories of farm animals) taking into consideration Polish specificity and results of Polish research work.

Milestones and sequencing (quarters):

1. analysis and studies of foreign regulations and standards on the issue - I 2002
2. collection and analysis of materials from catalogues, technological designing directives, information cards and individual technical projects from Polish institutions dealing with the issue I 2002
3. purchase of computer programmes which are needed for design work I 2002
4. collection and analysis of technological and technical materials of designing according to the EU norms and directives I 2002
5. verification of analysed materials I 2002
6. working out technological standards II 2002 - III 2003
7. working out construction and installation standards II 2002 - III 2003
8. working out standard quality for solutions relating to farm buildings in accordance with EU standards II 2002 - III 2003
9. working out standard quality for solutions of accompanying buildings (silos, manure pits, fermented liquid manure tanks, composting plants, biogas plants) II 2002 - III 2003
10. working out technological solutions for animal breeding II 2002 - III 2003
11. Dissemination of modern solutions relating to farm buildings and accompanying buildings, (prepared in the framework of the project) including training of associations of animal breeders, producer groups, agricultural service and designers at all levels Polish experts supported by short-term foreign experts during 2 days courses will train about 150 persons. Polish experts supported by short-term foreign experts during 2 days courses will do it. III/IV 2003
## Annex 1 – LOGFRAME PLANNING MATRIX FOR PROJECT

<table>
<thead>
<tr>
<th>Drafting</th>
<th>Planning Period</th>
<th>2001-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Contracting: 15/12/2003</td>
<td>End Disbursement: 15/12/2004</td>
<td></td>
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### Number: PL01.04.03

#### Title: Farm standards

<table>
<thead>
<tr>
<th>Wider objective</th>
<th>Indicators of Achievement</th>
<th>Sources of Information</th>
<th>Assumption and Risks</th>
</tr>
</thead>
</table>
| Improvement of the quality and effectiveness of agricultural production by modernisation of farming in the context of implementation aquis-communitaire requirements to Polish regulations regarding to animal production. | The complete and coherent set of technological directives for designing poultry farms and farm buildings for cattle, pigs, poultry and sheep. That material will be fulfilment of the obligation imposed on the Ministry of Agriculture by the polish regulations includes at the law for animal protection. From 2004 achievement can be examined under SAPARD programme (Fulfilment of standards prepared under the project will be a condition for granting public aids for investors): number of grants from public aid (SAPARD) | State statistics, studies and scientific analysis of research units, reports and documents of state offices, Including:  
- Central Statistical Office  
- Ministry of Agriculture and Rural Development  
- Bank of Information of the Institute of the Construction, Mechanisation and Electrification of Agriculture IBMER Warsaw | Governmental continuation of accepted directions of agricultural policy. |

<table>
<thead>
<tr>
<th>Immediate objectives</th>
<th>Indicators of Achievement</th>
<th>Sources of Information</th>
<th>Assumption and Risks</th>
</tr>
</thead>
</table>
| Preparation and dissemination of technical solutions for animal production facilities (for various species and categories of farm animals) according to EU requirements among other regulations mainly given by European Convention on protection of breeding animal, DIRECTIVE 88/166, DIRECTIVE 91/629, DIRECTIVE 91/630 and Dec. R 78/923), and in effect implementation of these solutions | Number of standard quality for solutions of accompanying buildings  
Number of practical publications  
Number of open days, workshops, seminars  
Number of trained people | The Institute of Construction Mechanisation and Electrification of Agriculture IBMER Warsaw.  
Central Designing - Research Office of Rural Construction BISPROL Warsaw.  
Ministry of Agriculture and Rural Development.  
Foreign experts | Securing appropriate contractor that would ensure the implementation of training aims |

<table>
<thead>
<tr>
<th>Results/Outputs</th>
<th>Indicators of Achievement</th>
<th>Sources of Information</th>
<th>Assumption and Risks</th>
</tr>
</thead>
</table>
| Prepared and disseminated technical solutions for animal production facilities (for various species and categories of farm animals) according to EU requirements. The technological and technical standards prepared and disseminated under this project will ensure the following benefits: enable a rational selection of pro-ecological and energy-saving animal keeping (for appropriate species and categories), depending on conditions resulting from financial and environmental limitations of a given farm and region; enable a correct selection of technical parameters for technological solutions for farm buildings in accordance with the law on animal protection (of 21 August 1997 Journal of Law No 111 item 724) and with EU directives; enable a correct application for grant from public funds (including SAPARD); create training material helpful in disseminating agricultural progress and promoting modern technologies; facilitate supervision over the implementation of appropriate solutions of farm buildings adjusted to EU requirements; support decisions in approving investment activities of farmers undertaking animal production according to EU standards; equip with appropriate materials helpful in designing. | Number of farms specialising in individual production directions that built a building according to a project worked out in accordance with the topic of the programme. Animal concentration on a farm. Labour outlays per 1 LU (Livestock Unit). work efficiency. Financial outlays to produce 1 l of milk, 1 kg of livestock, 100 eggs. The quality of produced material meets EU requirements. Production efficiency. number of grants from public aid - SAPARD (from year 2004) | Ministry of Agriculture and Rural Development.  
Institute of Construction Mechanisation and Electrification of Agriculture IBMER Warsaw.  
Central Designing-Research Office of Rural Agriculture .  
BISPROL Warsaw | pubic aid to support farms specialising in the animal production putting into practice the above project. Possibility of consolidation and implementation of knowledge. |

<table>
<thead>
<tr>
<th>Activities</th>
<th>Inputs</th>
<th>Source of Information</th>
<th>Assumption and Risks</th>
</tr>
</thead>
</table>
Analysis and studies UE regulations and standards on the issue; Collection and analysis of materials from catalogues, technological designing directives, information cards and individual technical projects from Polish institutions dealing with the issue; Purchase of computer programmes which are needed for design work; Collection and analysis of technological and technical materials of designing with the EU (norms and directives); Verification of analysed materials; Working out Polish technological standards; construction and installation Polish standards; standard quality for solutions relating to farm buildings; standard quality for solutions of accompanying buildings (silos, manure pits, fermented liquid manure tanks, composting plants, biogas plants). In accordance with EU law by implementation EU standards (taking into consideration Polish specificity and results of Polish research work). Dissemination of modern solutions relating to farm buildings and accompanying buildings, (prepared in the framework of the project) including training of associations of animal breeders, producer groups, agricultural service and designers at all levels. It’s planned to train about 150 people. Polish experts supported by short-term foreign experts during 2 days courses will do it.

The work done by all experts (long and short term) in preparation of technical solutions for animal production facilities (for various species and categories of farm animals) according to EU requirements and implementation of them.

Institute of Construction Mechanisation and Electrification of Agriculture
IBMER Warsaw

Central Designing-Research Office of Rural Construction
BISPROL Warsaw

contractors sources

Appropriate cooperation of all institutions taking part in the project;
Lack of interest in the project on the part of some participants;
Bad management of time;
Bad management of group of specialists
Well done training courses
Big interests in subject expressed by producers

Annexes 2-4 Implementation, contracting and disbursement schedules

<table>
<thead>
<tr>
<th>Project title</th>
<th>Date of Drafting</th>
<th>Planning Period</th>
<th>Budget Allocation</th>
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<td>Implementation</td>
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<td>Disbursement schedule</td>
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</table>

Legend: D – preparation of sub-projects / C – tendering and contracting / I – contract implementation and payment