

Minimising medicine use in organic dairy herds through animal health and welfare planning

Background and state of art

Livestock farming is an important part of organic farming systems, and it is an explicit goal of organic farming to ensure high levels of animal health and welfare (AHW) through proactive and appropriate management of breeding, feeding, housing and species specific husbandry. A goal in organic livestock farming is to minimise the use of veterinary medicines to improve food quality and protect the environment, and to do this by improving livestock living conditions rather than using alternative medical treatments. Key values influencing organic livestock production are naturalness, harmony at all levels of production, use and recirculation of local resources and the precautionary principle. The concepts of "positive health and welfare" are incorporated in EU Regulation 2092/91 on organic production. The farmer must ensure that farm animals as much as possible can perform natural behaviours and live natural lives, but at the same time he/she must intervene when necessary and at first signs of disharmony in the herd.

High levels of AHW are not guaranteed merely by farming to organic standards. This is a conclusion from two EU network projects, "Network for Animal Health and Welfare in Organic Agriculture (NAHWOA), and "Sustaining Animal Health and Welfare in Organic Farming" (SAFO). The principles and regulation of organic farming were shown not always to be well implemented in organic herds. This was due to lack of awareness and education among farmers and advisors, and in many cases concerns with regional and national conditions and traditions were compromising organic principles and regulations. Therefore, both networks recommended implementation of individual animal health plans to make organic farmers work towards AHW promotion and disease prevention. SAFO furthermore recommends a systematic evaluation of AHW in organic herds to ensure that not only minimum requirements are met but that positive health and welfare is practiced, continuously increasing AHW levels in organic livestock systems.

Welfare assessment has been used to evaluate AHW in organic dairy herds in the UK, Austria, Germany, Switzerland, Norway and Denmark, *e.g.*, in research projects or certification. However, these welfare assessment schemes need to be further developed. In particular, animal based parameters should be more emphasised and recent knowledge needs to be applied, *e.g.*, from the EU project "Welfare Quality". Welfare assessment should include calves and young stock, and should also be better integrated with health planning. Animal health plans develop positive AHW through devising appropriate husbandry, if combined with continuous monitoring and assessment. They can also make farmers achieve disease reduction goals through the systematic setting of health targets and plans of how to reach these. In the UK, animal health planning is mandatory for all organic producers, but currently no evaluation exists as to whether or how they are actively used by farmers. Animal health planning is also compulsory in many quality assurance programmes in conventional livestock farming and has become more high profile since the introduction of the Animal Health and Welfare Strategy for Great Britain in 2004. In Denmark, an organic herd health advisory service based on farmers' individual goals has been introduced but is not much used in practice. In Switzerland, about 100 organic dairy farms participate in a herd health advisory system (Pro-Q). In Norway, a health planning system has recently been introduced but is not yet evaluated. A project including more than 40 German organic dairy farms currently investigates the effect of farm-specific health plans on overall herd health.

If animal health plans are to gain widespread use among organic farmers, communication with the farmer community is crucial. A creative dialogue with the individual farmer is also necessary when identifying goals and planning how to reach them. Communication regarding the role and benefits of benchmarking or AHW assessment systems may be the catalyst needed to get farmers thinking about health and welfare planning. It can take place within health advisory systems or in farmer groups. Current research and development activities in Denmark, Norway, Switzerland, and the Netherlands show the benefits of such a dialogue.

In order to make the different systems applicable and relevant across a diverse range of agricultural conditions they have to be tested in different systems. From a consumers' perspective it is also an advantage if a more universal approach to the issue can be applied across Europe.

Objectives

To minimise medicine use in organic dairy herds through active and well planned animal health and welfare promotion and disease prevention.

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This objective is met through the following intermediate objectives:

- 1) Develop animal health and welfare planning principles for organic dairy farms under diverse conditions based on an evaluation of current experiences.
- 2) Application of animal health and welfare assessment based on the WelfareQuality parameters in different types of organic dairy herds across Europe. This will result in an overview of the herds and allow for potential adaptations for the organic situation (e.g. pasture systems, longer cow/calf contact). For calves, a special system will be developed by the Norwegian partners, and combined and tested together with the WelfareQuality assessment system.
- 3) Develop guidelines for communication about animal health and welfare promotion in different settings. This can be part of existing animal health advisory services or farmer groups such as the Danish Stable School system and the Dutch network program.

Project description

The project is primarily based on collaboration between research institutions with regard to evaluating, analysing and testing existing knowledge and experiences. This knowledge comes from current research activities and existing animal health promoting systems in the participating countries. This is expected to enable adaptation of animal health planning, animal health and welfare assessment through animal based parameters as well as advisory systems and farmer groups across borders and into the diverse conditions in many different European regions.

The project is divided in 5 work packages, 4 of which comprise research activities. One work package is focused on coordination and knowledge transfer, through meetings, workshops and publications:

WP1: Coordination and knowledge transfer

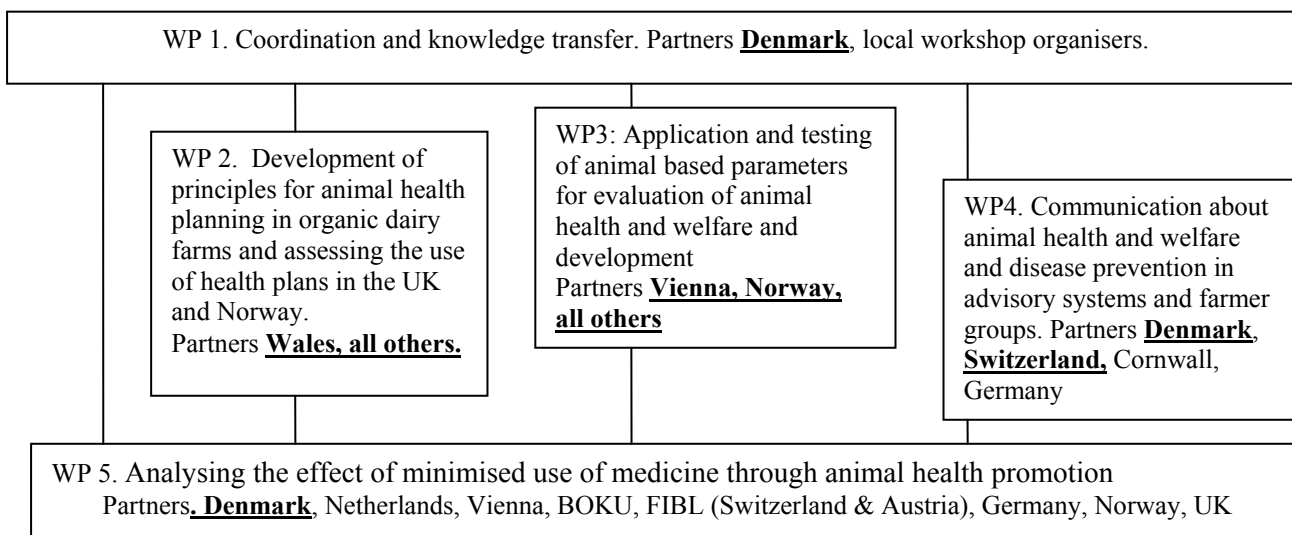
WP2: Development of principles for animal health and welfare planning in organic dairy farms

WP3: Application of animal based parameters for evaluation of animal health and welfare in dairy cattle and development of animal based parameters for calves, and the inclusion of these measures into animal health and welfare plans.

WP4: Communication about animal health and welfare and disease prevention in advisory systems and farmer groups

WP5: Analysing the effect of minimised use of medicine through animal health promotion

A time table including some main activities is under the work package description.



WP1: Coordination and knowledge transfer

Four project workshops are planned, where project activities are discussed in-depth, and the next phase is planned. External experts can be invited to these meetings during one of the days. All in all, 25 project related persons and 15 experts are planned to attend each meeting. Partner 1 (DIAS, Denmark) takes care of this activity. Travels, accommodation, meeting facilities are financed in this wp, and one work month is allocated for coordination of each workshop including proceedings, which also includes printing costs.

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Project administration meetings will take place in connection with all workshops. A workshop report will be made and distributed. This report will contain research papers and results from the participating countries, which are of relevance for one or more of the 5 work packages.

National stakeholder meetings are planned in order to exchange and discuss the results and conclusions, and the dissemination and implementation of the strategies that are found to fit best into the local, national and regional context. The focus area and approach of these meetings are planned in collaboration with national organisations and based on results from the project.

Milestones and deliverables are focused on organisation of workshops, reports, proceedings, website and course material. See List of Milestones below.

WP2: Development of principles for animal health and welfare planning in organic dairy farms

In UK, animal health planning is being increasingly promoted and implemented in both the organic and conventional livestock sectors – health planning is compulsory for organic certification in the UK. At the moment very little is known as to how health and welfare plans are developed and how they are implemented at the farm level. Experiences in the UK are very valuable for developing animal health and welfare planning on a European wide basis. A Danish Ph.D./master student (under the joint supervision of DIAS and UWA) will undertake a survey on the use of animal health plans in the UK (with input from all three British partner institutions) and this work will form the basis for an analysis of other existing systems. Both in Norway (where a newly introduced animal health plan system is implemented) and the UK, the existing systems will be evaluated with regard to:

- the way animal health plans are used in advisory/veterinary service
- the way they are used by organic farmers during and after conversion
- the way it is used in certification and inspection

Other voluntary health planning exists in Switzerland, the Netherlands and Germany, and they will also be evaluated. In collaboration with wp 4, the development and use of animal health and welfare plans in the communication with advisors, certifiers and in farmer groups will be explored and analysed.

The work in this wp will be led from the University of Wales, which is involved in ongoing activities concerning the development of animal health plans, based on the following principles: 1) Evaluate and establish a baseline (using farm data and animal based parameters from wp 3), 2) identify, prioritise and set targets, 3) Develop farm specific strategy for improvement, 4) Implement strategy, and 5) Evaluate effectiveness of strategy. These principles will need to be developed further to incorporate the principles of organic health management; as they stand they are very focussed on the disease reduction component of the health plan, where they need to focus on health and welfare promotion in general and all factors on the farm that influence animal health and welfare.

The milestones and deliverables in this wp focus on reports, manuals and guidelines on principles for development of animal health and welfare plans, and an international peer-reviewed article. See List of Milestones below.

WP3: Development and testing of animal based parameters for evaluation of animal health and welfare

This work package is built up on the following activities:

1. Adaptation of existing animal-based health and welfare parameters, e.g. on the basis of the results from WelfareQuality and other existing assessment protocols.
2. Development of a calf welfare plan. The development will take place in Norway, will be included in the training workshop and animal based welfare assessments across countries and be based on the results from the various countries. The evaluation of the plan will also take place in Norway.
3. One training workshop for assessing animal based protocols on dairy cattle and offspring which will involve training the assessors to ensure repeatability. This will be a collaboration between Vienna University (Austria) and Bristol University (the United Kingdom).
4. Assess animal health and welfare on 10-20 farms/country in Norway, Denmark*), Austria*), UK*), Germany*), Switzerland*), the Netherlands*), and give immediate feedback to farmers, including filling in the results to a database on-farm. (*) main funding already achieved in national projects). The quality of the assessments will be evaluated by Vienna University and Bristol University. The results of these assessments will be used in WP2 (be implemented as an

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evaluation tool for animal health and welfare planning), WP4 (included in discussions in farmer groups or health advisory systems) and WP5 (epidemiological analyses of herd results).

From this work package, four sub-contracts will be signed with institutions in participating countries regarding on-farm studies, where animal based parameters are tested and used, and where additional information is decided by the project group to be of great value in the partner countries. The partners in these sub-contracts will be identified at the first project meeting.

The milestones and deliverables connected to this wp focus on evaluation reports, reports on on-farm-studies, a peer-reviewed article and guidelines for the use of animal based parameters under diverse conditions in dairy cattle and calves. See List of Milestones below.

WP4: Communication about animal health and welfare and disease prevention in advisory systems and farmer groups

This work package contains the following activities:

- 1) An evaluation of existing advisory systems, farmer groups, and possibilities which are not yet used in the participating countries. This will be the starting point in national evaluations, and be analysed at workshop 1. An identification of the education needs of farmers, vets and other animal health and welfare advisors will be included in this work. University of Aarhus will lead this work.
- 2) Development of communication principles in animal health promotion work in the advisory dialogue and in farmer groups. This involves The Netherlands, Germany, Denmark and Vienna.
- 3) Analysing and implementing farmer groups following national adoptions to the Danish Stable School principle for minimisation of medicine use through animal health and welfare promotion and disease prevention. Training of facilitators will take place in relation to implementation in each participating countries. This work is led by University of Aarhus, Denmark, and involves Norway, Switzerland, Cornwall, Austria and Germany.

The use of animal health and welfare plans as well as animal based parameters will be included into the analysis as well as the development of communication principles. Animal health planning and the use of animal based parameters are both very relevant to include in the dialogue related to development of animal health promoting initiatives in the herds.

The milestones and deliverables in this wp focus on evaluation reports describing state of the art concerning health advisory systems, principles on Stable Schools, and a peer-reviewed journal article. See List of Milestones below.

WP5: Analysing the effect of minimising the use of medicine through animal health promotion

Minimising antibiotic/medicine use through health promotion means that we do not focus only on diseases, but on promoting the health and welfare of animals, e.g. through hygiene, outdoor access etc. Alternative disease treatment could be relevant in some cases, but should not be the main focus. Animal health planning (setting goals and working towards them) is very relevant in this context, and since it often demands farm specific and innovative solutions, it makes it relevant to work in farmer groups and / or use advisory services.

This work package focuses on a number of case study herds working towards a high level of animal health and welfare and minimisation of medicine use. Strategies in the case study herds can be described using, among other things, existing knowledge and data on medicine use. Previous experiences from the Swiss 'ProQ', the Danish 'Phasing out antibiotics' and the Dutch 'Antibiotic free dairy farming' projects will be explored using qualitative research interviews. Epidemiological analyses based on data, observations and recordings in the herds will be studied. The use of animal based parameters can be included in these analyses. In this work package, projects involving a number of existing farms are supported through national funds as follows: NL 25 farms, Austria: 25 farms, Bristol: 40 farms, Dk: 10-20 farms. Switzerland: 25 farms, Germany: 20 farms, Norway: 14 farms. From this work package, four sub-contracts will be signed with institutions in participating countries regarding on-farm studies where additional information is decided by the project group to be of great value in the partner countries. The partners in these sub-contracts will be identified at the third project meeting.

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Timetable (the numbers refer to deliverables (list can be obtained on request) for each workpackage.

Project year	1				2				3			
Activity \ Month	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12
WP1: Coordination and knowledge transfer												
Workshops (partner org.)	1(p1)		1(p3)			1(p2)						1(p5)
National stakeholderws												
Coord. & know.trans.	2	5	2			2						2
WP2: Development of principles for animal health and welfare planning in organic dairy farms												
Ph.1:Evaluation												
Ph.2: Analysis												
Ph.3: Dissemination									1			
WP3: Application of animal based parameters for evaluation of animal health and welfare in dairy cattle and development of animal based parameters for calves, and the inclusion of these measures into animal health and welfare plans.												
Evaluat.+analysis												
Test and adjust												
Guide + framework									1			
Dissemination												
WP4: Communication about animal health and welfare and disease prevention in advisory systems and farmer groups												
Evaluate / analyse national conditions					1							
Develop principles												
Dissemination												2
WP5: Analysing the effect of minimised use of medicine through animal health promotion												
Evaluation			1									
Master/Ph.D.student									2			
Epid.analysis & publication											3	

See List of Milestones below.

Methodology and underlying theory

Most of the work in this project will be quantitative and qualitative scientific analyses of herd and farm data, available from national cattle data bases, project recordings and other sources, plus from animal based welfare parameters collected in wp 3. Descriptive and analytical statistical methods will be used alongside qualitative research methods, including group focus interviews, and individual semi-structured interviews. Training of partners for these activities will be involved where necessary. The impact on farmers' decision making strategies will be described in this way by using social science methodology.

Ecological, social, economical relevance

Ecological relevance: Maintaining a microbiologically healthy environment in and around the animals, minimising drug inputs and preventing disease through an effort for improved health is much in accordance with the principles of organic farming. Working with diverse farming systems to find the best solutions in relation to different European conditions is much in accordance with the principles of organic farming.

Social relevance: Minimising the risk of residues and antimicrobial resistance in animal food products has significant consumer impact, and impact on the farmers' economy and feeling of security regarding the milk delivered from the farm. The dialogue about animal health and welfare in advisory services and through the formation of farmer groups positively influences the organic farming environment and encourages a concerted effort by the industry towards animal health and welfare improvements.

Economical relevance: Improving health on farms and reducing disease treatment has economic benefits. Some of the Danish farms that participated in the Danish Stable Schools programme have reduced their medical inputs to zero. Furthermore, if it improves the chances for export e.g. to countries that request food produced without medicinal inputs, it has a potentially important role in the economic feasibility of this strategy.

Dissemination Plan

A dissemination plan for each work package is developed including national publications and course material for farmers, vets and other animal health advisors, as well as at least one international peer-reviewed publication for each work package.

Demonstration of added value

Much of this project is based on national on-going activities, and is designed to transfer, jointly analyse and discuss the results of this work. This means that other research groups and countries benefit from research results, and benefit from the joint analysis and adaptation to diverse conditions. The national teams feed the acquired knowledge back to their national partners, and the European (and international) community benefit from the joint effort to develop practices, which meet core areas of organic livestock production (animal health and welfare through non-medical approaches). Appendix C gives a list of projects from where results and activities are synergistically used in relation to this project.

List of milestones

M 1.1 A website for project as well as public assess initiated	(mth5)
M 1.2 Four workshops organised including project work and administration meetings	(mth 1,8,16,34)
M 1.3 Four sets of workshop reports in print	(mth 3,10,18,36)
M 1.4 National stakeholder meetings organised and held	(mth 27)
M 2.1 Evaluation of current use of AHW plans in UK and elsewhere completed	(mth 16)
M 2.2 Analysis of principles for AHW planning completed	(mth 24)
M 2.3 Guidelines + manuals for AHW plans on practical partner experiences completed	(mth 36)
M 2.4 One scientific publication concerning AHW planning submitted	(mth 36)
M 3.1 Training of national partners in use of agreed animal based parameters done	(mth 12)
M 3.2 Guidelines and manual for national use of animal based parameters completed	(mth 30)
M 3.3 One scientific publication about use of animal based parameters submitted	(mth 36)
M 4.1 Strategy for each participating country for dialogue on AHW identified	(mth 15)
M 4.2 Report after stakeholder workshops focusing on dialogue complete	(mth 29)
M 4.3 One scientific publication about dialogue on AHW submitted	(mth 36)
M 5.1 Scientific publication on the use of AHW planning for medicine reduction submitted	(mth 23)
M 5.2 Scientific pub. on minimisation of medicine use throughout Europe submitted	(mth 36)

The project team (Appendix B)

The project consist of researchers 15 institutions in 8 countries. All national research groups have experience with on-farm studies and participatory and action research and/or development of organic farming.

- P1. Danish Institute of Agricultural Sciences, Denmark, Mette Vaarst;
- P2. University of Veterinary Medicine, Vienna, Austria, Christine Leeb
- P3. University of Wales, UK, Pip Nicholas;
- P4 BOKU, Vienna, Austria, Christoph Winckler,
- P5 FIBL, Switzerland, Michael Walkenhorst & Peter Klocke.
- P6 Duchy College, UK, Stephen Roderick.
- P7 Wageningen UR, NL, Gidi Smolders.
- P8 FIBL, Austria, Elisabeth Stöger´.
- P9 Bioforsk, Norway, Inger Hansen & Britt I.F. Henriksen .
- P10 National Veterinary Institute, Norway, Vonne Lund.
- P11 University of Göttingen, Germany, Jan Brinkmann & Solveig March

Appendix B - Curriculum Vitae for all partners

- P1. Mette Vaarst, Danish Institute of Agricultural Sciences, Denmark
- P2. Christine Leeb, University of Veterinary Medicine, Vienna, Austria
- P3. Philippa Nicholas, University of Wales, UK.
- P4. Christoph Winckler, BOKU, Vienna, Austria.
- P5 Michael Walkenhorst & Peter Klocke, FIBL, Switzerland.
- P6. Stephen Roderick, Duchy College, UK.
- P7. Gidi Smolders, Wageningen UR, NL.
- P8. Elisabeth Stöger, FIBL, Austria.
- P9. Inger Hansen & Britt I.F. Henriksen, Bioforsk, Norway,
- P10. Vonne Lund, National Veterinary Institute, Norway.
- P11. Jan Brinkmann & Solveig March, University of Göttingen, Germany,

Curriculum Vitae, Partner 1: Mette Vaarst, DIAS, Denmark

Education and qualifications:

May 1990:	Cand.med.vet., KVL.
1993- 1995	Internordic postgraduate course, veterinary epidemiology, (28 days)
June 1994:	3 years education as Human Classical homoeopath completed
March 1995:	Veterinary Ph.D. degree
Sep. 1996-August 2000	Medical Anthropology. Half time student, Århus University (open university; 2 years half time study in total)
1998 -2000:	Education in philosophy, Århus University, half time student, (open university)
September 1999:	Education as veterinary homoeopath (international education acknowledged by International Association for Veterinary Homoeopathy).
August 2004	Master education, Medical Anthropology, Århus University (open university; thesis to be submitted January 2007 about empowerment and learning in farming systems).

Current employment: Senior scientist at Department of Animal Health, Welfare and Nutrition, DIAS.

Employment since 1991: Danish Institute of Agricultural Sciences (DIAS): Research assistant, Ph.D.student, scientist (Department for research in Cattle and Sheep and Department of Animal Health and Welfare).

Research and work activities:

- Participation and leadership of research activities in organic dairy herds, organic pig herds and conventional dairy herds. Participation in international conferences, work-shops etc. Participation in expert panels and research advisory boards. Action research, inter-disciplinary research, qualitative and quantitative research approaches.
- Since June 1999 participating in international EU network project: Network on Animal Health and Welfare in Organic Agriculture. Since March 2003 coordinator EU-Network project 'Sustaining Animal health and Food Safety in Organic Agriculture' (SAFO; more information www.safonetwork.org).
- Participation in DANIDA research activities in Uganda 2000-2004.
- Teaching experience & education (farmers, veterinary and agricultural science students, Ph.D.students, veterinarians, agricultural advisor etc.) and supervising smaller groups and group work. Supervisor of four Ph.D:students (all graduated).

Curriculum vitae, Partner 2: Christine Leeb, University of Veterinary Medicine, Vienna, Austria

Personal details:

Dr. med. vet. Christine Leeb CertWEL MRCVS

Born on 10.11.1969 in Linz, Austria

Austrian Nationality

German native language, excellent English (spoken and written), basic knowledge in Spanish

Current position: Research Assistant at the Teaching- and Research Farm of the Veterinary University Vienna, Austria

Education:

1981-1988

Secondary School: Bundesrealgymnasium Peuerbachstraße, Linz, Austria

1988-1997

University of Veterinary Medicine Vienna, Austria, Degree of Dipl. Tzt.

1997-2000

University of Veterinary Medicine, Institute for Animal Welfare and Husbandry, Doctoral thesis (Degree of Dr. med. vet., Supervisor: Prof. Dr. Josef Troxler) on: "Registration of group housing systems for pregnant sows in practise: management, housing and animal based parameters."

Further education:

August 1999

Ethological training at FAL Westerau, Germany (Dr. Beate Bünger)

July 2002

Workshop in Edinburgh "Qualitative Animal Behaviour Assessment" (Dr. Françoise Wemelsfelder)

2000-2004

Registration for the RCVS Certificate in Animal Welfare Science, Ethics and Law and Course in Cambridge (2001), Birmingham (2002) and Bristol (2004)

September 2004

Degree of RCVS Certificate for Animal Welfare Science, Ethics and Law (CertWEL)

Work experience:

Summer 1995 – 1999

Work on alpine dairy farm in Austria

Professional life:

1999-2000

Participation in the project (Dr. J. Baumgartner): „Investigation on the flow of information of applied ethological knowledge to Austrian farm animal husbandry“

2000 - 2003

Matthew Eyton Resident for Farm Animal Health and Welfare Department for Clinical Veterinary Sciences, Division of Farm Animal Sciences, University of Bristol, UK, Supervisor: Prof. Nicol

- **Clinical work and preventive medicine** in the Farm Animal Practise
- **Teaching undergraduate veterinary students** in Animal Welfare Science, ethics and law, farm animal medicine and pig /poultry handling
- **Active participation in various projects of the Behaviour and Welfare Group** (Prof. Nicol, Dr. M. Mendl, Dr. C. Sherwin, Dr. D.C.J. Main)

2003 – 2004

Research Assistant Department for Clinical Veterinary Sciences, Division of Farm Animal Sciences, University of Bristol, UK

DEFRA project OF 0314: „**Incorporation of existing animal welfare assessment techniques into organic certification and farming**“

- Development of assessment protocols as certification tool for farms (beef and dairy cattle, pigs and laying hens)
- Field trial on 25 farms
- Organisation of two series of workshops for inspectors: assessment of animal health and welfare, legislation, herd health planning and practical assessments on farm
- Series of talks on herd health planning and animal health and welfare assessment for farmers and veterinarians

Since Oktober 2004

University Assistant at the Teaching- and Research Farm of the Veterinary University Vienna

- Herd Health Management of University pig herds
- Teaching undergraduate vet students
- Coordination and management of research projects on Teaching and Research Farm
- Active participation on workshops and seminars:
GD Dairy cattle Welfare project (no. 1080071): Expert Meeting, Deventer, Netherlands, 11 February 2005

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COST workshop of Group housing of Pregnant sows , Belgium
CRIS 2004/16762.05.01 Twinning MT04-1B-AG-01: Capacity Building in the Food and Veterinary Regulation Division, Malta, 2006
Meat and Livestock Commission (“MLC”) : Adding value to farm assurance: On-farm evaluation of health and welfare outcomes “Project” – workshop 23.-27th October 2006, Teaching and Research Farm, Vienna

Curriculum Vitae, partner 3: Phillipa Nicholas, University of Wales, UK

Dr Phillipa Nicholas, Institute of Rural Sciences, University of Wales Aberystwyth, Aberystwyth, SY233AL, United Kingdom. Email: pkn@aber.ac.uk, ph: +44 (0)1970 622240

Qualifications:

1996-1999 PhD in Pastoral Science, Massey University, New Zealand
1991-1995 BSc in Agricultural Science (1st class), Massey University, New Zealand

Current and previous positions:

2001-present Research Associate, Institute of Rural Sciences, University of Wales, Aberystwyth
1999-2001 Farm systems scientist, Dexcel Limited, New Zealand

Relevant skills:

Teaching and research on organic livestock production with expertise in dairy farm systems and animal health and welfare planning. Research experience in the economics and relationships within agri-food supply chains, the drivers of organic farming uptake and organic farming action plan evaluation.

Curriculum Vitae, partner 4: Christoph Winckler, BOKU, Vienna

Personal details:

Prof. Dr. Christoph Winckler

Department of Sustainable Agricultural Systems, Division of Livestock Sciences, University of Natural Resources and Applied Life Sciences, Gregor-Mendel-Strasse 33, A-1180 Vienna, Austria

Tel +43-1-47654 3261, christoph.winckler@boku.ac.at

Date of birth 19.01.1964

Citizenship German

Education:

1985 – 1990 Justus-Liebig-University Gießen, Germany
Agriculture/Animal Science (Dipl.-Ing. agr.)

1986 – 1992 Justus-Liebig-University Gießen, Germany
Veterinary Medicine (DVM)

1994 – 1997 Justus-Liebig-University Gießen, Germany
Doctoral thesis in Veterinary Physiology (Dr. med. vet.)

Professional Experience Record:

1990 – 1991 Research Assistant at the Department of Livestock Ecology, Justus-Liebig-University Gießen, Germany (Prof. Dr. J. Steinbach)

1993 Advisory service for small scale dairy production in Suceava, Romania

1994 – 1997 PhD student at the Department of Veterinary Physiology, Justus-Liebig-University Gießen, Germany (Prof. Dr. G. Breves)

1997 – 2003 Assistant Professor for Animal Husbandry at the Researchj Centre for Animal Production and Technology Weser-Ems, Georg-August-University Göttingen, Germany

Spring 2002/spring 2003 Research visit to the Animal Welfare Program/Dairy Education and Research Centre der University of British Columbia, Vancouver/Kanada

Since 2003 Professorship for Farm Animal Ecology, University of Natural Resources and Applied Life Sciences (BOKU) Vienna

Main research topics:

- (On-farm) welfare assessment
 - Development and validation of animal-based welfare indicators and recording methods (e.g. gait scoring, social behaviour, behaviour around resting, positive indicators); partner within the EU-IP Welfare Quality (coordinator of cattle related welfare assessment protocols)
 - Positive emotions
 - Epidemiological studies (e.g. lameness on dairy cattle, social behaviour, skin lesions)
- Improvement of housing systems
 - Comparison of housing systems for farrowing sows with regard to e.g. behaviour, animal health, economy
- Animal health
 - Animal health (and welfare) in organic farming
 - Implementation of herd health and welfare plans
- Genetics of behaviour
 - Intersucking in cattle
 - Avoidance distance towards humans
- Environmental impact of veterinary drugs
 - Behaviour of veterinary drug residues in biogas plants

Curriculum vitae, partner 5(1): Michael Walkenhorst, FiBL, Switzerland

Personal details

Dr. Michael Walkenhorst
Animal Health Division, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, Postfach
CH-5070 Frick, Tel: +41-62-865 72 86, michael.walkenhorst@fibl.ch
Date of birth 13. September 1971

Education

1998 Graduation in Veterinary Medicine at the Tierärztliche Hochschule Hannover
2006 PhD thesis "Vergleich von homöopathischer mit antibiotischer Laktationstherapie zur
Behandlung von Mastitiden des Rindes"

Professional experience record

Since 1998 Employee of the Research Institute of Organic Agriculture (FiBL)

Curriculum Vitae, partner 5(2): Peter Klocke, FiBL, Switzerland

Personal details

Dr. Peter Klocke
Animal Health Division, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, Postfach
CH-5070 Frick
Date of birth 31. March 1961

Education

1982 - 1989 Veterinary University Hannover (DVM)
1990 - 1992 Practical work for PhD thesis in Neustadt/Aisch, Germany (AI organisation)
1993 PhD thesis "Investigations on the development of a computerized herd health management in
dairy farms by the fertility extension service of a breeding company"

Professional experience record

1990 – 1993 Practical work in different large animal practices in Bavaria
1993 – 1999 Research assistant in the Veterinary clinic of reproduction, FU Berlin, Germany:
udder health management, fertility in dairy cattle and horses; computer based herd health
management; complementary medicine
1999 – 2005 Research fellow in the Animal Health division of FiBL: udder health management;
epidemiology, complementary medicine; statistical analysis
Since 2005 Head of the Animal Health division of FiBL

Curriculum Vitae, partner 6 Stephen Roderick, Duchy College, Cornwall, UK

Qualifications:

PhD The University of Reading, 1995 “*Pastoral cattle productivity in a tsetse infested area of SW Kenya*”

MSc Animal Production, The University of Reading, 1988

BSc (Hons) Agriculture, Nottingham University, 1982

Current employment:

Organic Project Manager for the EU/DEFRA Objective 1-funded Organic Studies Initiative in Cornwall

Previous employment:

1993-2001 Research fellow/consultant, Veterinary Epidemiology and Economics Research Unit, The University of Reading, UK

1990-1993 Research officer, Kenya Trypanosomiasis Research Institute, Nairobi, Kenya

1988 Lecturer, West Sussex College of Agriculture, UK

1985-1987 Lecturer and dairy manager, Natural Resources Development College, Lusaka, Zambia

1982-1985 Commercial agriculture, UK

Relevant current research activities:

- Management of all organic research projects associated with the EU/Defra-funded Organic Studies Centre, Duchy College;
- An electronic compendium of animal health and welfare for organic farming (Defra-funded) involving synthesis and compilation of all relevant scientific literature appropriate to animal health and welfare in organic systems. The updating of an electronic resource suitable for use by advisors, farmers and veterinarians, including sections on all major diseases of pigs, poultry, cattle and sheep covering treatment, best practice and control and prevention. Sections also included on biosecurity, health planning, welfare assessment and organic legislation;
- Animal welfare assessments, benchmarking and herd health planning (Defra-funded and others). On-farm animal based health and welfare assessments conducted on 28 organic dairy farms. Assessment of farmer perception of welfare assessment and health planning using qualitative interviews;
- Epidemiology of internal parasites in organic sheep flocks (Cornwall College-funded) using on-farm faecal egg count to monitor parasite control strategies in organic sheep flocks;
- Lecturer in animal science and organic agriculture;
- Co-ordinator of organic farmer discussion groups and training;
- Editor of organic farming technical bulletin;
- Member of numerous organic research and development advisory committees.

Curriculum Vitae, partner 7 Gidi Smolders, Wageningen UR, The Netherlands

Education:

Agricultural university Wageningen

Expertise:

Organic dairy farming

Health and welfare dairy cattle

Databases and epidemiology

Experience:

Judging animals (claws, locomotion, skin damages, teat ends, body condition)

Organizing and running projects

Farm management systems and related databases

Knowledge transfer to farmers groups

Main projects:

- Animal health and welfare on dairy farms minimizing nitrogen and phosphor
- Animal health and welfare on organic dairy farms
- Resistance and immunity (organic) dairy cows
- Animal health and welfare at dairy farms without synthetic vitamins
- Animal health and welfare at antibiotic free organic dairy farms

Curriculum Vitae, Partner 8 Elisabeth Stöger, FiBL Austria

Personal details:

Dr. Elisabeth Stöger, Research Institute of Organic Agriculture FiBL Austria, Theresianumgasse 11/1, A-1040 Wien, Tel. +43-1-9076313, elisabeth.stoeger@fibl.org

Date of birth: 20 January 1965

Qualifications: Dr. med. vet., University of Veterinary Medicine Vienna

Present position: Scientific researcher, Research Institute of Organic Farming, (FiBL Austria)

Professional experience record:

1983 - 1994: University of Veterinary Medicine Vienna

1996: PhD thesis

1996-2006: Veterinary practice in Kärnten, Austria, small and large animals, mainly ruminants

2000 - 2006: Lectures for organic farmers in animal health und welfare

Since Jan. 2005: Research Assistant at the Research Institute of Organic Agriculture FiBL Austria;
3 year project: Ruminant health in organic agriculture

Activities:

Elisabeth Stöger (ES) is a veterinarian (Dr.med.vet, University of Veterinary Medicine Vienna), working in veterinary surgeries since 1996 in Kärnten, Austria, with special interests in phytotherapy, homeopathy und organic farming, mainly working with ruminants. ES gives lectures for (organic) farmers in animal health und welfare, management and alternative medicine since 2000, about 50 courses per year. Since 2005 she is working in the Research Institute of Organic Agriculture FiBL Austria in a 3-year project: ruminant health in organic agriculture.

Curriculum Vitae, Partner 9 (1) Inger Hansen, Bioforsk, Norway

Personal details:

Name: Inger Hansen, Bioforsk Nord Tjøtta, N-8860 Tjøtta, tel + 47 75 04 66 07
Date of birth: 12.07 1962
Private address: Offersøy, N-8800 Sandnessjøen, phone: + 47 75 04 64 99 /+47 90 62 76 34

Education and practice:

1989 MSc, animal science, Norwegian University of Agriculture (now Norwegian University of Life Sciences)
1993 PhD, animal science, Norwegian University of Agriculture. Main subject: Farm animal ethology. Second subjects: Neurobiology, statistics and scientific methods. PhD-thesis: "Ethological studies of laying hens in aviaries and cages".
1993-94 6 months research for Norwegian Railways. Report: "Effects of construction work for highway and railway on behaviour and production of laying hens at Damengen's farm in Vestby".
Since 1994 Researcher at Bioforsk Nord Tjøtta

Activities:

- Projects mainly within the field of livestock/carnivore conflicts and/or applied ethology
- LiCl-conditioned taste aversion
 - Livestock-guarding dogs
 - Antipredatory behaviour of sheep
 - Electric fencing towards predators
 - Monitoring lamb mortality by biotelemetry
 - Double bunks for wintering sheep in organic farming
 - Welfare of calves in uninsulated buildings

Supervision:

- Second supervisor for MSc-students at the Norwegian University of Agriculture, animal science.
- Second supervisor for students at the agricultural College in Nord-Trøndelag.
- External examiner, several ethology courses at the Norwegian University of Agriculture.

Curriculum Vitae, Partner 9 (2): Britt I.F. Henriksen, Bioforsk, Norway

Personal details:

Britt Ingeborg Foseide Henriksen

Researcher, Animal health and welfare, Organic Food and Farming Division, Norwegian Institute for Agricultural and Environmental Research (Bioforsk)

Date of birth: 13 June 1973

Qualifications: Master of Science

Brief summary:

Britt I. F. Henriksen holds a Master of Science (Cand Agric.) from Agricultural University of Norway (Norwegian University of Life Science (UMB)). Thesis: Foraging behaviour of sheep in relation to Bog Asphodel, *Nartheicum ossifragum*, and the disease Alveld. Current position is research scientist at Bioforsk Organic Food and Farming Division, Tingvoll, Norway. She has been working on different research projects related to animal nutrition (ruminants) and animal welfare. The main work has been in cow and dairy production, but is also involved in sheep and goat production.

Academic qualifications:

1999	Project management, 3 month study (4 vekttall) (Prosjektforum), 1999.
1899	Variansanalyse og forsøksplanlegging, EEU-course 98038 (5 vekttall) (course in statistic analysis of variance, and research planning), 1998 – 1999.
1998	Master of Science (Cand. Agric), Agricultural University of Norway, (Animal Science) Title of thesis: Foraging Behaviour of Sheep in Relation to Bog Asphodel, <i>Nartheicum ossifragum</i> , and the Disease “Alveld”.
1996	Courses in statistics, breeding and organic farming, KVL, Denmark
1993	Øytun folk high school

Occupation after Master of Science:

From 08.06 1998 Employed as researcher at the Norwegian Centre for Ecological Agriculture (Bioforsk Organic Food and Farming Division from 01.01.06), Tingvoll, Norway. Main fields: Animal health and welfare in organic agriculture, and Animal nutrition (ruminants).

International networks:

- Concerted Acton, EU: “Network for Animal Health and Welfare in Organic Agriculture” (NAHWOA). 1999 –2001
- Concerted Action, EU: ”Sustaining Animal Health and Food Safety in Organic Farming” (SAFO). Medlem i Standard development group. 2003 – 2006.

Curriculum Vitae, partner 10: Vonne Lund, National Veterinary Institute, Norway

Current position:

September 2005 Senior researcher at the National Veterinary Institute, Norway

Education:

1975-1982 Student at the Swedish University of Agricultural Sciences, major in animal science
1976-77 One year of practical agricultural studies abroad, mainly in New Zealand
1989 Degree in pedagogy at Uppsala University
1991-93 Part time studies in ethics, at Lund University, and animal hygiene, at the Swedish University of Agricultural Sciences
1998-2002 PhD-studies at the Department for Animal Environment and Health, Swedish University of Agricultural Sciences Doctoral thesis in 2002: *Ethics and animal welfare in organic animal husbandry – an interdisciplinary approach*

Project leaderships:

1990-1994 Editor part time, for a university newsletter on organic farming at the Swedish University of Agricultural Sciences
1992-1998 Work together with Prof Ingvar Ekesbo and Bo Algers, at the Swedish University of Agricultural Sciences, in different animal welfare projects
1993-1994 Project leader part time, at the Norwegian Centre for Organic Agriculture, Tingvoll, Norway working with a project developing organic animal production in Norway
1994-1998 Project leader part time, for a Nordic project “Information and networking in organic farming research”
1996-2000 Project leader for development projects in Estonia and Lithuania in organic and sustainable agriculture, financed by the Nordic Council of Ministers and the Swedish International Development Cooperation Agency
2003-2005 Project leader (researcher) for animal welfare related projects at the National Veterinary Institute, Norway

Other relevant activities:

1981-1993 Part time farmer on a smallholding in Rättvik, Sweden
1981 and continuing Running a private consulting company with focus on information and advisory services regarding organic animal husbandry Work has included assignments for the Swedish Board of Agriculture, authorship of educational books and work as a freelance journalist
1996 and continuing Course leader and university lecturer in Sweden and internationally
2001-2002 Co-editor of a book, “Animal Health and Welfare in Organic Agriculture”, CABI Publishing (2004)
2002 Visiting scholar at the Animal Welfare Program, University of British Columbia, Vancouver, BC, Canada
2004-2005 Co-opted member of the Norwegian National Ethical Committee for Patent Issues
2005-2008 Appointed member of the National Committee for Research Ethics in Science and Technology in Norway
2006-2009 Appointed member of the Norwegian National Ethical Committee for Patent Issues
2006-2009 Member of editorial board of the Journal of Agricultural and Environmental Ethics

International award:

2003 “Forschungspreis der Internationalen Gesellschaft für Nutztierhaltung“, awarded for best PhD dissertation

Curriculum Vitae, partner 11 (1): Solveig March, University of Göttingen, Germany

Personal details:

Solveig March

Research Centre for Animal Production and Technology, Georg-August-University of Goettingen, Driverstrasse 22, D - 49377 Vechta, Germany, +49 - 44 41 - 15 211, Solveig.March@agr.uni-goettingen.de

Date of birth 26.04.1972

Citizenship German

Education:

1992 – 1994 Georg-August-University of Goettingen, Germany; Agricultural Sciences

1994 – 1996 Apprenticeship in Organic Farming (Staatlich geprüfte Landwirtin)

1996 – 1997 Christian-Albrecht-University Kiel, Germany; Agricultural Sciences

1997 – 2000 University of Rostock, Germany; Agricultural Sciences/Agricultural Ecology (Graduation Dipl. Ing. agr.)

Professional experience record:

2000 – 2001 Commercial clerk in a temporary employment agency

2001 – 2002 Department of Land Use within the Bund für Umwelt und Naturschutz Deutschland e.V. (Friends of the Earth Germany)

2002 – 2003 Research Assistant at the Institute of Organic Farming, Federal Agricultural Research Centre, Trenthorst, Germany (Prof. Dr. G. Rahmann)

Since 2004 PhD student at the Research Centre for Animal Production and Technology, Animal Husbandry Research Group, Georg-August-University Goettingen, Germany (Prof. Dr. C. Winckler)

Research topics:

- Animal health (and welfare) in organic farming
 - Implementation of herd health and welfare plans
- On-farm health and welfare assessment
 - Development and validation of animal-based health and welfare indicators and recording methods (e.g. gait scoring, integument lesion scoring, animal-human relationship)
- Epidemiological studies (e.g. lameness in dairy cattle)

Curriculum vitae, partner 11 (2): Jan Brinkmann, University of Göttingen, Germany

Personal details:

Jan Brinkmann, B.Sc. M.Sc.

Research Centre for Animal Production and Technology, Georg-August-University of Goettingen, Driverstrasse 22, D - 49377 Vechta, Germany, +49 - 44 41 - 15 211, Jan.Brinkmann@agr.uni-goettingen.de

Date of birth 02.05.1975

Citizenship German

Education:

1995 - 1997 Apprenticeship in Organic Farming (Staatlich geprüfter Landwirt)

1997 - 2000 Georg-August-University of Goettingen, Germany, Agriculture/Animal Science (B.Sc.)

2000 – 2002 Georg-August-University of Goettingen, Germany, Agriculture/Animal Science (M.Sc.)

Professional experience record:

2000 – 2001 Research Assistant at the Ecology of Livestock Production Research Group, Georg-August-University Goettingen, Germany (Prof. Dr. Dr. M. Gerken)

2001 – 2002 Research Assistant at the Research Centre for Animal Production and Technology, Animal Husbandry Research Group, Georg-August-University Goettingen, Germany (Prof. Dr. C. Winckler)

Since 2004 PhD student at the Research Centre for Animal Production and Technology, Animal Husbandry Research Group, Georg-August-University Goettingen, Germany (Prof. Dr. C. Winckler)

Research topics:

- On-farm health and welfare assessment
 - Development and validation of animal-based health and welfare indicators and recording methods (e.g. gait scoring, integument lesion scoring, animal-human relationship)
- Epidemiological studies (e.g. lameness in dairy cattle)
- Animal health (and welfare) in organic farming
 - Implementation of herd health and welfare plans

Appendix I. Budget

Budget for the entire project involving 11 partner institutions in 7 countries

Budget for the entire project (Euro) —broken down by calendar year						
Budget item	From national funding body		From place of work		From other sources	
	Person months	Euro				
1st calendar year	Salaries/academic staff	26	132193			
	Salaries/techn.-adm. staff	0	0			
	Equipment		500			
	Operational expenses		72750			
	Others (please specify below)		28000			
Total direct costs		233443				
Overhead		46689				
Total		280132				
2nd calendar year	Salaries/academic staff	26	112723			
	Salaries/techn.-adm. staff	2.5	10000			
	Equipment		500			
	Operational expenses		46250			
	Others (please specify below)		73100			
Total direct costs		242573				
Overhead		48515				
Total		291088				
3rd calendar year	Salaries/academic staff	21	98389			
	Salaries/techn.-adm. staff	0	0			
	Equipment		500			
	Operational expenses		41900			
	Others (please specify below)		0			
Total direct costs		140789				
Overhead		28158				
Total		168947				
Total		740166				

Budget for partner 1: DIAS, Denmark

Budget for Partner 1: DIAS (Euro) —broken down by calendar year						
Budget item	From national funding body		From place of work		From other sources	
	Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	3,0	16500	0,0	0	
	Salaries/techn.-adm. staff	0	0	0	0	
	Equipment		500		0	
	Operational expenses		49000		0	
	Others (please specify below)		0		0	
	Total direct costs		66000		0	
Overhead (20 % of direct costs)		13200		0		0
Total		79200		0		0
2nd calendar year	Salaries/academic staff	2	11000	0	0	
	Salaries/techn.-adm. staff			0	0	
	Equipment		500		0	
	Operational expenses		7750		0	
	Others (please specify below)		17100		0	
	Total direct costs		36350		0	
Overhead (20 % of direct costs)		7270		0		0
Total		43620		0		0
3rd calendar year	Salaries/academic staff	3	16500	0	0	
	Salaries/techn.-adm. staff		0	0	0	
	Equipment		500		0	
	Operational expenses		26.000		0	
	Others (please specify below)				0	
	Total direct costs		43000		0	
Overhead (20 % of direct costs)		8600		0		0
Total		51600		0		0
Total		174420				
Comments/specifications to the budget:						
4 workshops are planned (2 in year 1, 1 in year 2 and 1 in year 3).						
This partner covers the organisation of the all, and within the budget of this partner is planned a number of invited experts and delegates.						
Workshop 1 is held in Denmark, and is planned to cost 30.000 Euro including invited guests and project participants						
Workshop 2 is held in UK, and this budget allocates 10.000 Euro to this meeting for travel and accommodation for invited guests and delegates.						
Workshop 3 is held in Austria and will mainly be covered by the Austrian budget, and only travel						

and accommodation for Danish partners (2000Euro) is planned for workshops this year.. Workshop 4 is the final workshop and will be held in Switzerland. In this budget for partner 1, there is planned 10000 Euro for invited guests and Danish partners.

A workshop more was originally planned for, but cannot be made because it was based on an Italian budget, which was not accepted by the funding bodies. Alternative funds are applied for in order to make it possible.

Furthermore, operational costs for year one (2000Euro) and year two (5000Euro) covers travel and stay for one Danish Ph.D.student to analyse Animal Health and Welfare plans in the UK, and if possible and decided in the project group, elsewhere.

Partner 1 is responsible for the editing and printing of the proceedings and reports from meetings and workshops. A limited number, however, will be printed, because it will be accessible on internet. 3500 Euro is planned for printing and posting each set of reports and proceedings (7000 in year 1, 3500 in year 2 and 7000 in year 3).

In year 3, national stakeholder meetings will take place in participating countries. 10000 Euro is allocated for this in order to make and print reports and translated summaries to national farmer journals etc..

This partner is responsible for knowledge transfer, and in project year 3, 1000Euro is allocated for publications (printing of posters, conference leaflets and page fee in scientific journals etc, as at least one scientific journal article is planned for each work package).

The coordination and scientific work in wp4 and wp5, and the participation in the project as a total is planned to be covered by a DARCOF funded project, which is expected to fit very well into the scope of this project: 'Increased integrity in organic dairy production through natural sources of vitamins and minerals and non-antibiotic health control (ECOVIT)'. DIAS. Project leader Torben W. Bennedsgaard. Funded by DARCOF. Includes a wp with the aim to document motivations, experiences, actions and consequences of long-term non-antibiotic herd strategies in organic dairy farming under Danish conditions, to describe strategies and for health promotion and disease treatments in USA in organic dairy herds with no antibiotic usage, and to document the effect of non-antibiotic disease treatments used in organic dairy herds by controlled studies. Within this project, a Ph.D.student is expected to make a survey about animal health plans in the United Kingdom in collaboration with this project, and the activities carried out in ECOVIT are expected to contribute significantly to WP5 in this project, and carries a budget of approx. 617.000Euro. Other activities in the main project ECOVIT is also relevant to this.

One salary month in year 3 is allocated to cross country analyses of results in collaboration with national partners.

The other costs in year 2 is additional epidemiological recordings and analyses in work package 5.

In relation to work package 5 (Analysing the effect of minimised use of medicine through animal health promotion), 2 sub-contracts will be formed and put within the budget of the partner, who are responsible for these work packages.

Each of the two subcontract consist of 15 farm visits with recordings (including dialogue with the farmer, e.g. questionnaire and discussion about the findings), preparation and transport.

The sub-contractors for this work package will be identified at the second project meetings, based on relevance. This can be in any of the participating countries, and with persons or institutions within or outside this consortium. The choice is based on where the most valuable information is expected to be found in order to cover the problem area best. This arrangement gives the highest flexibility for everybody and allows a longer identification process to take place, when the partners have the possibility to discuss it at a meeting, where everybody is personally present.

We have placed the on-farm activities related to wp 5 in year 3.

Each sub-contract is budgeted as follows:

Salary, 15 farm visits including preparation, transport and reporting á 400 Euro	6000,- Euro
Transport to 15 farms (150 km per farm = 2250 km á 0,5 Euro)	1125,- Euro
Overhead costs	1425,- Euro
Total	8550,- Euro

A master or Ph.D.student will be financed from and connected to the project via the ECOVIT

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project described above, and he/she is planned to stay at University of Wales, Duchy College, Cornwall and University of Bristol (where the partners Medeleine Neale and David Main are connected to this CORE-organic project as external experts), to analyse the situation regarding the animal health planning in the UK in collaboration and under supervision of the British partners, mainly Dr. Phillipa Nicholas from University of Wales.

Budget for partner 2: University of Veterinary Medicine, Vienna, Austria

Budget for University of Veterinary Medicine, Vienna (Euro) - broken down by calendar year							
	Budget item	From national funding body		From place of work		From other sources	
		Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	3,0	8000	0,0	0		
	Salaries/techn.-adm. staff	0	0	0	0		
	Equipment		0		0		
	Operational expenses		0		0		
	Others (please specify below)		10000		0		
	Total direct costs		18000		0		0
	Overhead (20 % of direct costs)		3600		0		0
	Total		21600		0		0
2nd calendar year	Salaries/academic staff	6	16000	0	0		
	Salaries/techn.-adm. staff	0	0	0	0		
	Equipment		0		0		
	Operational expenses		1000		0		
	Others (please specify below)		20000		0		
	Total direct costs		37000		0		0
	Overhead (20 % of direct costs)		7400		0		0
	Total		44400		0		0
3rd calendar year	Salaries/academic staff	6	16000	0	0		
	Salaries/techn.-adm. staff	0	0	0	0		
	Equipment		0		0		
	Operational expenses		1000		0		
	Others (please specify below)		0		0		
	Total direct costs		17000		0		0
	Overhead (20 % of direct costs)		3400		0		0
	Total		20400		0		0
	Total		86400				
Comments/specifications to the budget:							
<p>Partner 2 is coordinator of wp 3 and co-organiser of the third workshop in the project. This partner is main responsible for carrying out the application and testing of the animal based parameters for animal health and welfare.</p> <p>In relation to work packages 3 (application and testing of animal based parameters) and 5 (Analysing the effect of minimised use of medicine through animal health promotion), all in all 8 sub-contracts will be formed and put within the budget of the partners, who are responsible for these work packages.</p> <p>Each subcontract consist of 15 farm visits with recordings (including dialogue with the farmer, e.g. questionnaire and discussion about the findings), preparation and transport.</p>							

The sub-contractors for this work package will be identified at the third project meetings, based on relevance. This can be in any of the participating countries, and with persons or institutions within or outside this consortium. This arrangement gives the highest flexibility for everybody and allows a longer identification process to take place, when the partners have the possibility to discuss it at a meeting, where everybody is personally present.

Each sub-contract is budgeted like the sub-contracts for partner 1, and we have placed the on-farm activities related to wp 3 in year 1 and 2, with 10000 Euro for year 1 and 20000 Euro for year 2.

For the three Austrian partners - partner 2, 5 and 11 - a number of on-going research projects are highly relevant to the project, which is proposed in this application, and which are all expected to contribute significantly to the completion of this project. Two of them are described in relation to partner 5 (BOKU, Vienna), and the third one is described below:

Ruminant health in organic agriculture: This 3-year-project (2005-2007) is funded by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management. Project leader: Reinhard Gessl, Bio Austria and Elisabeth Stöger, FiBL Austria. Aim of the project is to minimise antibiotics in organic herds. The farmers get advice in management and alternative medicine. About 30 farms are involved now. About 50 courses for farmers are held per year on animal health and welfare including practical on farm tutorials. The vets get information on treatment of animals in organic farming.

Partner 2 will contribute with the following to the proposed project:

WP 1: Coordination and Knowledge Transfer

- Organisation of national stakeholder meeting

Vienna offers excellent facilities for workshops (Teaching and Research Farm of the Veterinary University or at the University of Natural Resources and Applied Life Sciences, Vienna), including on-farm facilities

WP 2: Development of principles for animal health planning in organic dairy farming

All three partners are actively involved in activities related to this work package and are able to contribute specific knowledge and experience:

Christine Leeb:

During the position as Research Assistant at the University of Bristol, UK the DEFRA project OF 314: „Incorporation of existing animal welfare assessment techniques into organic certification and farming“ was carried out. A tool (“BWAP” – see <http://www.vetschool.bristol.ac.uk/animalwelfare>) was developed. This includes protocols for the assessment of the quality and effectiveness of health plans. Also health plans were written and implemented and farmer meetings organised to inform on this issue.

WP 3: Development and testing of animal based parameters for evaluation of animal health and welfare

Austria will be responsible for this work package.

Christine Leeb: Organisation of the training workshop, coordination of linking this wp with wp 2, 4 and 5.

Activities:

- One training workshop for assessing animal based protocols on dairy cattle and offspring which will involve training the assessors to ensure repeatability. This will be collaboration between Vienna University (Austria) and Bristol University (the United Kingdom).
- Coordination of the assessments of animal health and welfare on various farms across countries (4 subcontracts). Partner 11, Elisabeth Stöger, will be involved in this.
- Implementation of herd health plans and repeat assessments for the evaluation of effectiveness (animal health and welfare, use of medicine).

WP 4: Communication about animal health and welfare and disease prevention in advisory systems and farmer groups

Austria will take part in the following activities

- 1) an evaluation of existing advisory systems, farmer groups, and possibilities which are not yet used
- 2) Development of communication principles in animal health promotion work in the advisory dialogue and in farmer groups.
- 3) Analysing and implementing farmer groups following national adoptions to the Danish Stable School principle for minimisation of medicine use through animal health and welfare promotion and disease prevention. Training of facilitators will take place in relation to implementation in each participating countries.

WP 5: Analysing the effect of minimising the use of medicine through animal health promotion
Austria will take part in the implementation and evaluation of the herd health and welfare plans in 60 farms via sub-contracting.

Budget for partner 3: University of Wales, UK

Budget for University of Wales (Euro) —broken down by calendar year						
Budget item	From national funding body		From place of work		From other sources	
	Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	4,0	23220			
	Salaries/techn.-adm. staff	0,0	0			
	Equipment		0			
	Operational expenses		2250			
	Others (please specify below)		0			
Total direct costs		25470				
Overhead (20 % of direct costs)		5094				
Total		30564				
2nd calendar year	Salaries/academic staff	0	0			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		1700			
	Others (please specify below)		0			
Total direct costs		1700				
Overhead (20 % of direct costs)		340				
Total		2040				
3rd calendar year	Salaries/academic staff	0	0			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		1700			
	Others (please specify below)		0			
Total direct costs		1700				
Overhead (20 % of direct costs)		340				
Total		2040				
Total		34644				

Comments/specifications to the budget:

The activities are connected to work package 2, where partner 3 is coordinator and main responsible. The research will primarily be a review and analysis of principle for animal health and welfare planning in the UK and in the literature, and supervision of a Danish Ph.D.student.

Operational expenses are travel costs are for participation in meetings and workshops for 2 persons + transport in relation to collecting information for the research activities in wp2 (year 1).

Budget for Partner 4: BOKU, Vienna, Austria

Budget for BOKU, Austria (Euro) —broken down by calendar year

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	Budget item	From national funding body		From place of work		From other sources	
		Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	6,0	16000				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		4000				
	Others (please specify below)		18000				
	Total direct costs		38000				
	Overhead (20 % of direct costs)		7600				
	Total		45600				
2nd calendar year	Salaries/academic staff	6	16000				
	Salaries/techn.-adm. staff	2,5	10000				
	Equipment		0				
	Operational expenses		16000				
	Others (please specify below)		36000				
	Total direct costs		78000				
	Overhead (20 % of direct costs)		15600				
	Total		93600				
3rd calendar year	Salaries/academic staff	6	16000				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		2000				
	Others (please specify below)		0				
	Total direct costs		18000				
	Overhead (20 % of direct costs)		3600				
	Total		21600				
	Total for the 4 years		160800				

Comments/specifications to the budget:

In relation to the work packages, Partner 5 contributes to the project in the following way (in close cooperation with partner 2):

WP 1: Coordination and Knowledge Transfer

- Participation in relevant project workshops,
- Organisation of national stakeholder meeting

WP 2: Development of principles for animal health planning in organic dairy farming

Partner 5 is in close contact in relation to research activities (described below) at Göttingen University together with partners 14, Solveig March and Jan Brinkmann, and

WP 3: Development and testing of animal based parameters for evaluation of animal health and welfare

Austria will be responsible for this work package. Partner 5, Christoph Winckler, is involved in

the EU-funded project WelfareQuality, from which parameters for dairy cows and calves and the scientific coordination of the development and application of these parameters on the various countries and the organic situation has taken place.

Activities planned in this work package are:

- One training workshop for assessing animal based protocols on dairy cattle and offspring which will involve training the assessors to ensure repeatability. This will be collaboration between Vienna University (Austria) and Bristol University (the United Kingdom).
- Coordination of the assessments of animal health and welfare on various farms across countries (4 subcontracts)
- Implementation of herd health plans and repeat assessments for the evaluation of effectiveness (animal health and welfare, use of medicine).

WP 4: Communication about animal health and welfare and disease prevention in advisory systems and farmer groups

Austria will take part in the following activities

- 1) an evaluation of existing advisory systems, farmer groups, and possibilities which are not yet used
- 2) Development of communication principles in animal health promotion work in the advisory dialogue and in farmer groups.
- 3) Analysing and implementing farmer groups following national adoptions to the Danish Stable School principle for minimisation of medicine use through animal health and welfare promotion and disease prevention. Training of facilitators will take place in relation to implementation in each participating countries.

WP 5: Analysing the effect of minimising the use of medicine through animal health promotion
Austria will take part in the implementation and evaluation of the herd health and welfare plans in 60 farms (4 subcontractors).

Explanation of operational costs:

A part of the operational costs are subcontracting, where partner 11 will be main sub-contractor, and others may be identified at one of the first project meetings.

As explained in the budget of partner 2, each subcontract is suggested to consist of 15 farm visits with recordings (including dialogue with the farmer, e.g. questionnaire and discussion about the findings), preparation and transport.

The sub-contractors for this work package will be identified at the first project meetings, based on relevance. Apart from partner 11, it can be decided to be any of the participating countries, and with persons or institutions within or outside this consortium. This arrangement gives the highest flexibility for everybody and allows a longer identification process to take place, when the partners have the possibility to discuss it at a meeting, where everybody is personally present.

Each sub-contract is budgeted (in 'others' costs) like the sub-contracts for partner 1, and we have placed the on-farm activities related to wp 3 in year 1 and 2, with 18000 Euro for year 1 and 36000 Euro for year 2.

In year 2, a workshop is planned to be held in Austria, and 15000 Euro is allocated for this year for workshop facilities and invitation of external experts and delegates.

1000 Euro is allocated per workshop for travel expenses in years 1 and 3.

The following activities are expected to contribute significantly to partner 5's activities and inputs in the proposed project:

Animal health in the food chain management in organic dairy farming (project no. 03OE406 within the German Federal Organic Farming Scheme/Bundesprogramm Ökologischer Landbau) is a 3-years project (2005-2007). It was the aim of the first part to develop (1) a preventive animal health management concept for organic dairy farms with regard to lameness, (2) to validate this management concept as well as to demonstrate its feasibility by an intervention study in 43 commercial organic dairy farms and (3) to establish adequate communication structures to bridge the gap between research and practice by training courses (recommendations for advisory services, information for the farmers).

In a second part, which is currently being carried out, herd health plans are implemented in a sample of German organic dairy farms (26 intervention farms, 17 control farms). Major indicators for animal health (e.g. mastitis, lameness, metabolic disorders, reproductive disorders, calf diseases) have been identified and respective goals been defined. Guidelines for the development of herd health plans based on these indicators and the existing knowledge (e.g. from Great Britain) have been set up and the effectiveness in improving the health situation is studied as well as the

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acceptance by farmers, veterinarians and advisors. It will also be studied to what extent such indicators can be integrated into the inspection procedures in organic farming.

The knowledge transfer concerning the use of herd health plans shall be achieved in close co-operation with partner projects on pig and poultry health which follow the same approach both by a joint workshop as well as by publishing a joint brochure (recommendations for advisory services, information for the farmers).

This project is budgeted to 55000 Euro in 2007 and if approved 80.000 for each of the years 2008 and 2009.

Welfare Quality (2004-2009; contract No. FOOD-CT-2004-506508; www.welfarequality.net) is a EU-funded project designed to integrate animal welfare in the food quality chain in a clear, transparent way. Using science-based tools, we aim to address societal, industry and governmental requirements, and to develop reliable and realistic on-farm welfare monitoring systems, easily understandable product information systems, and practical strategies to improve animal welfare. Partners in this integrated research project represent 39 institutes and universities from 13 European countries, and offer specialist expertise in biology, animal sciences, and social sciences. Regarding practical on-farm welfare monitoring systems, it has to be taken into account that animal welfare is influenced by many factors, such as health; housing, husbandry and social conditions; ability to perform certain behaviours etc. Rigorous testing is ensuring that the mainly animal-based parameters and measures selected are valid and reliable indicators of welfare. A 'full' monitoring system will be tested for its large-scale feasibility in practice before the measures are further refined and integrated to produce the final system with a good balance between sensitivity and practicability. This monitoring system will offer a rapid feedback of helpful information to the farmer, and a science-based tool for the conversion of welfare measures into a product information system that is conveyable to and easily understood by retailers and consumers.

This project is budgeted to 100.000 in 2007.

Budget for Partner 5: FIBL, Switzerland

Budget for FIBL, Switzerland (Euro) — broken down by calendar year							
	Budget item	From national funding body		From place of work		From other sources	
		Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	4,0	26168				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		3000				
	Others (please specify below)		0				
	Total direct costs		29168				
Overhead (20 % of direct costs)		5833,6					
Total		35002					
2nd calendar year	Salaries/academic staff	4	26168				
	Salaries/techn.-adm. staff		0				
	Equipment		0				
	Operational expenses		4500				
	Others (please specify below)						
	Total direct costs		30668				
Overhead (20 % of direct costs)		6133,6					
Total		36802					
3rd calendar year	Salaries/academic staff	2	13084				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		4500				
	Others (please specify below)		0				
	Total direct costs		17584				
Overhead (20 % of direct costs)		3516,8					
Total		21101					
Total for the 4 years		92904					
Comments/specifications to the budget:							
<p>In year 3, a workshop will be held in Switzerland, and partner will be involved in the local organisation, as well as in national stakeholder workshops, where funds are expected to be applied for elsewhere (0,5 person month allocated for this).</p> <p>All operational costs are travels to workshops and local transportation related to on-farm-activities.</p> <p>The salary costs are placed primarily in work package 4, where 2 months are planned in year 1 and 2. Besides herd data and farmer interviews are planned to be carried out in 10-20 farms in all three years (0,5 person month per year). At the end of the project, 1,25 person month is allocated</p>							

for dissemination and publication. The remaining salary costs are in work packages 2 ,and 3, where animal health and welfare planning as well as animal based parameters will be systematically evaluated in pro-q herds (see below for description of the pro-q-project).

The following research project is expected to give significant inputs to the activities in the proposed project:

The pro-q-project is an udder health programme especially for organic farmers under Swiss conditions. The aim is to minimize the use of antibiotics and to assure a good udder health state on the farms. At the end of the third project year more than 100 farms participate in the project. Data of mastitis causing factors were collected on these farms: housing, feeding, human-animal-interaction, milking technology, milking hygiene. The evaluation of the herd mastitis status is based on quarter milk samples and milk recording data. During a period of at least 2 years the project-farms are intensively advised by the project. The development of mastitis causing factors and the mastitis status of the farms is followed up at regular intervals to show possible correlations between (changing) factors and mastitis status. In addition, a network of health data is implemented for providing information for farmers and veterinarians in preventive herd health management.

Budget for Partner 6: Duchy College, Cornwall, UK

Budget for Duchy College, Cornwall (Euro) —broken down by calendar year							
	Budget item	From national funding body		From place of work		From other sources	
		Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	1,0	5805				
	Salaries/techn.-adm. staff	0,0	0				
	Equipment		0				
	Operational expenses		1500				
	Others (please specify below)		0				
	Total direct costs			7305			
	Overhead (20 % of direct costs)		1461				
	Total		8766				
2nd calendar year	Salaries/academic staff	1	5805				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		1000				
	Others (please specify below)		0				
	Total direct costs			6805			
	Overhead (20 % of direct costs)		1361				
	Total		8166				
3rd calendar year	Salaries/academic staff	1	5805				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		1500				
	Others (please specify below)		0				
	Total direct costs			7305			
	Overhead (20 % of direct costs)		1461				
	Total		8766				
	Total		25698				
Comments/specifications to the budget:							
<p>The money applied for in this project is partly co-supervising of Danish Ph.D.student involved in the project, travelling to meetings and workshops and co-editing the workshop reports.</p> <p>All operational costs are for travels to workshops and project meetings.</p> <p>This partner contributes to the work in the proposed project through extended involvement in organic research at Duchy College, Cornwall, where organisation of farmer groups, animal health planning and animal welfare assessment are some of the core research and development areas. There is a tradition for on-farm research and close contacts to local organic organisations and</p>							

certification bodies.

The following projects are currently ongoing and expected to contribute significantly to wp 2,3 and 4:

- **An electronic compendium of animal health and welfare for organic farming (Defra-funded) involving synthesis and compilation of all relevant scientific literature appropriate to animal health and welfare in organic systems, including dairy cattle. Sections also included on biosecurity, health planning, welfare assessment and organic legislation;**
- **Animal welfare assessments, benchmarking and herd health planning (Defra-funded and others). On-farm animal based health and welfare assessments being conducted on 28 organic dairy farms. Assessment of farmer perception of welfare assessment and health planning using qualitative interviews;**

Budget for partner 7: Wageningen UR, The Netherlands

Budget for Wageningen UR, The Netherlands (Euro) —broken down by calendar year							
	Budget item	From national funding body		From place of work		From other sources	
		Person days	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	10,0	8500				
	Salaries/techn.-adm. staff	0,0	0				
	Equipment		0				
	Operational expenses		2500				
	Others (please specify below)		0				
	Total direct costs		11000				
	Overhead (20 % of direct costs)		2200				
	Total		13200				
2nd calendar year	Salaries/academic staff	5	4250				
	Salaries/techn.-adm. Staff	0	0				
	Equipment		0				
	Operational expenses		1300				
	Others (please specify below)		0				
	Total direct costs		5550				
	Overhead (20 % of direct costs)		1110				
	Total		6660				
3rd calendar year	Salaries/academic staff	10	8500				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		2700				
	Others (please specify below)		0				
	Total direct costs		11200				
	Overhead (20 % of direct costs)		2240				
	Total		13440				
	Total		33300				
<p>Comments/specifications to the budget: The costs for Partner 10 cover participation and travel to 5 workshops and meetings in the proposed project, including travel costs and accommodation.</p> <p>This partner contributes to the research activities, building up and exchange of knowledge with the following activities, which are expected to contribute to wps 2, 3, 4 and 5.</p> <ul style="list-style-type: none"> In 2006, a research project including 12 organic dairy farms using little or non antibiotics at all is finished. After this, a new one will focus on minimising medicine use and improving animal health (total 8 farms), comparable with the Swiss proQ project. This partner institution is furthermore working on assessment of animal welfare and health in organic husbandry (goat, cow, chicken and pigs). 							

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- Network groups of farmers (conventional and organic) has started with the title "Dairy husbandry antibiotic free", where also animal welfare is assessed.
- A large project focuses at the moment at developing and implementing phytotherapy, among others involving identification and clinical testing of herbs on mastitis.
- In 2007, assessment of animal welfare is foreseen to be done at 25 organic dairy farms in relation to the Qlif project and measures also used in the Swiss ProQ project. Estimation of resistance in dairy cows is furthermore planned in 2007 at 35 organic farms (funds yet to be confirmed on this last activity).

Budget for Partner 8: FIBL, Austria

Budget for FIBL, Austria (Euro) —broken down by calendar year						
Budget item	From national funding body		From place of work		From other sources	
	Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	0,0	0			
	Salaries/techn.-adm. staff	0,0	0			
	Equipment		0			
	Operational expenses		0			
	Others (please specify below)		0			
	Total direct costs		0			
Overhead (20 % of direct costs)		0				
Total		0				
2nd calendar year	Salaries/academic staff	0	0			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		0			
	Others (please specify below)		0			
	Total direct costs		0			
Overhead (20 % of direct costs)		0				
Total		0				
3rd calendar year	Salaries/academic staff	0	0			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		0			
	Others (please specify below)		0			
	Total direct costs		0			
Overhead (20 % of direct costs)		0				
Total		0				
Total		0				

Comments/specifications to the budget:

Partner 11 will be sub-contracted to partners 2 and 5 (the other two Austrian partners) and contribute with on-farm research and herd analyses, plus implementation of animal based parameters into the herd health plans at 60 farms, including farmers' feed-back to this. In relation to wp 4, this partner will contribute together with the other Austrian partners with 1) an evaluation of existing advisory systems, farmer groups, and possibilities which are not yet used 2) Development of communication principles in animal health promotion work in the advisory dialogue and in farmer groups. 3) Analysing and implementing farmer groups following national adoptions to the Danish Stable School principle for minimisation of medicine use through animal health and welfare promotion and disease prevention. Training of facilitators will take place in

relation to implementation in each participating countries.

The partner will contribute with extended knowledge about organic livestock farming, veterinary work on organic farms and herd health planning. Dr. Stöger is currently responsible for the three year (2005-2007) project “Ruminant health in organic agriculture” with the aim to minimise antibiotics in organic herds. Currently 30 farms are participating, which are visited repeatedly and herd health plans written and implemented (For project description see partner 2, University of Veterinary Medicine, Vienna, Austria).

Budget for partner 9: Bioforsk, Norway

Budget for Bioforsk, Norway (Euro) —broken down by calendar year						
Budget item	From national funding body		From place of work		From other sources	
	Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	2,0	15000			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		4500			
	Others (please specify below)		0			
	Total direct costs		19500			
Overhead (20 % of direct costs)		3900				
Total		23400				
2nd calendar year	Salaries/academic staff	2	15000			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		4000			
	Others (please specify below)		0			
	Total direct costs		19000			
Overhead (20 % of direct costs)		3800				
Total		22800				
3rd calendar year	Salaries/academic staff	2	15000			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		2000			
	Others (please specify below)		0			
	Total direct costs		17000			
Overhead (20 % of direct costs)		3400				
Total		20400				
Total		66600				
Comments/specifications to the budget:						
<p>Partner 12 will together with partner 13 develop and test animal based parameters and animal health and welfare assessment specifically for calves, including the parameters developed in WelfareQuality (see partner 2 and 5).</p> <p>The activities of Partner 12 will build on previous project activities involving calves and animal welfare assessment:</p> <p>A) "Welfare of calves in uninsulated buildings" (2005-2006). A sub-project to the project "Agricultural buildings in the Arctic". Inger Hansen was involved in this project. Welfare of calves 0-6 months of age reared in an uninsulated building in the coastal area of</p>						

Helgeland in northern Norway is evaluated on the basis of behaviour, health and growth. Calves 1-6 months housed in uninsulated group pens lied less and stayed more in cold climate compared to warmer winter climate, whereas calves 0-1 months with access to a semiinsulated laying area used the lying area more and displayed more often social thermoregulation during the coldest periods. The behavioural adaptation to cold environment is a natural strategy, which in itself have no negative impact on calf welfare under temperatures recorded in this study. Additional factors, as too little colostrum to some calves, might be the cause of high calf mortality and reduced welfare for certain individuals. The significance of a bedding with good insulatory capacity is discussed.

B)"Good welfare in organic milk production" (2003-2005). In this project the cow comfort schemes were developed and tested. Britt I.F. Henriksen was involved in this project.

Budget for partner 10: National Veterinary Institute, Norway

Budget for National Veterinary Institute, Norway (Euro) —broken down by calendar year							
	Budget item	From national funding body		From place of work		From other sources	
		Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	1,0	7500				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		3000				
	Others (please specify below)		0				
	Total direct costs		10500				
Overhead (20 % of direct costs)		2100					
Total		12600					
2nd calendar year	Salaries/academic staff	1	7500				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		3000				
	Others (please specify below)		0				
	Total direct costs		10500				
Overhead (20 % of direct costs)		2100					
Total		12600					
3rd calendar year	Salaries/academic staff	1	7500				
	Salaries/techn.-adm. staff	0	0				
	Equipment		0				
	Operational expenses		1000				
	Others (please specify below)		0				
	Total direct costs		8500				
Overhead (20 % of direct costs)		1700					
Total		10200					
Total		35400					
Comments/specifications to the budget:							
<p>Partner 13 will together with partner 12 develop and test animal based parameters and animal health and welfare assessment specifically for calves, including the parameters developed in WelfareQuality (see partner 2 and 5).</p> <p>The activities of Partner 13 will build on previous project activities involving calves: "Stockmanship and the human-animal relationship: Its effect on the health and welfare of dairy calves" (2006-). This partner is furthermore involved in a project regarding calf welfare improvement (conventional and organic farms), which is also currently taking place, with a budget at 35.000Euro.</p>							

Budget for partner 11: University of Göttingen, Germany

Budget for University of Göttingen, Germany (Euro) — broken down by calendar year						
Budget item	From national funding body		From place of work		From other sources	
	Person months	Euro	Person months	Euro	Person months	Euro
1st calendar year	Salaries/academic staff	2,0	5500			
	Salaries/techn.-adm. staff	0,0	0			
	Equipment		0			
	Operational expenses		3000			
	Others (please specify below)		0			
	Total direct costs		8500			
Overhead (20 % of direct costs)		1700				
Total		10200				
2nd calendar year	Salaries/academic staff	4	11000			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		6000			
	Others (please specify below)		0			
	Total direct costs		17000			
Overhead (20 % of direct costs)		3400				
Total		20400				
3rd calendar year	Salaries/academic staff	0	0			
	Salaries/techn.-adm. staff	0	0			
	Equipment		0			
	Operational expenses		0			
	Others (please specify below)		0			
	Total direct costs		0			
Overhead (20 % of direct costs)		0				
Total		0				
Total		30600				
Comments/specifications to the budget:						
<p>The budget for Partner 14 covers on-farm activities and travels to workshops.</p> <p>Partners 14 contribute to the project through an on-going project in collaboration with Prof. Christoph Winckler from Austria, Partner 5 in this project:</p> <p><u>Animal health in the food chain management in organic dairy farming</u> (project no. 03OE406 within the German Federal Organic Farming Scheme/Bundesprogramm Ökologischer Landbau) is a 3-years project (2005-2007). It was the aim of the first part to develop (1) a preventive animal health management concept for organic dairy farms with regard to lameness, (2) to validate this management</p>						

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concept as well as to demonstrate its feasibility by an intervention study in 43 commercial organic dairy farms and (3) to establish adequate communication structures to bridge the gap between research and practice by training courses (recommendations for advisory services, information for the farmers). In a second part, which is currently being carried out, herd health plans are implemented in a sample of German organic dairy farms (26 intervention farms, 17 control farms). Major indicators for animal health (e.g. mastitis, lameness, metabolic disorders, reproductive disorders, calf diseases) have been identified and respective goals been defined. Guidelines for the development of herd health plans based on these indicators and the existing knowledge (e.g. from Great Britain) have been set up and the effectiveness in improving the health situation is studied as well as the acceptance by farmers, veterinarians and advisors. It will also be studied to what extent such indicators can be integrated into the inspection procedures in organic farming.

The knowledge transfer concerning the use of herd health plans shall be achieved in close co-operation with partner projects on pig and poultry health which follow the same approach both by a joint workshop as well as by publishing a joint brochure (recommendations for advisory services, information for the farmers).