

Project partners

Australia

Co-operative Research Centre, Cattle and Beef Quality Australia
John Thompson,
jthomps@une.edu.au

Austria

University of Veterinary Medicine (UVM)
Frans Smulders,
frans.smulders@vu-wien.ac.at

International Atomic Energy Agency (IAEA)
Andrew Cannavan,
a.cannavan@iaea.org

Josef Strobel und Sohne (JST)
Richard Strobel,
stroebel.fleisch@aon.at

Belgium

Ghent University (UGent)
Wim Verbeke,
wim.verbeke@ugent.be

Brazil

Universidade Federale de Sao Paulo (UNIFESP)
Beatriz Guth,
becguth.dmip@epm.br

Universidade de Sao Paulo (USP)
Bernadette Franco,
bfranco@usp.br

Microbiotics (MIC)
Alfredo Marcial Montes Nino,
amontes@microbiotics.com

Canada

Canadian Research Institute for Food Safety, University of Guelph (CRI)
Mansel Griffiths,
mgriffit@uoguelph.ca

Denmark

Aarhus School of Business, University of Aarhus (AU)
Klaus Grunert, klg@asb.dk

Danish Meat Research Institute (DMRI), Lars Bager Christensen,
lbc@danishmeat.dk

France

Institut National de la Recherche Agronomique (INRA)
Joseph Culioli,
culioli@clermont.inra.fr

Association pour le Développement de l'Institut de la Viande (ADIV)
Jean-Pierre Frençia,
jp.frençia@adiv.fr

United Nationale des Cooperatives d'Elevage et d'Insemination Animale (UNCEIA)
Valerie Dodelin, valerie.dodelin@inst-elevage.assoc.fr

Germany

Institute of Farm Animal Biology (FBN)
Klaus Ender,
ender@fbn-dummerstorf.de
Karin Nurnberg,
knuernbg@fbn-dummerstorf.de

Greifenfleisch GmbH (GFG)
Walter Kienast,
greifen-fleisch@t-online.de

Greece

Agricultural University of Athens (AUA) George-John Nychas,
gjn@aua.gr

Aristotle University of Thessaloniki (AUTH)
Kostas Koutsoumanis,
kkoutsou@agro.auth.gr

Apostolos Papadopoulos and Sia OE (PAP)
Apostolos Papadopoulos,
apos_74@hotmail.com

Biofarma Peloponissos AE (Ecofarm)
Spiropoulos Apostolos,
ecofarm@altecnet.gr

Ireland

Ashtown Food Research Centre (Teagasc)
Declan Troy (co-ordinator),
declan.troy@teagasc.ie
Geraldine Duffy,
geraldine.duffy@teagasc.ie
Robert Mooney (project manager),
robert.mooney@teagasc.ie

University College Dublin (UCD)
Francis Butler,
f.butler@ucd.ie

University College Cork (UCC)
Joseph Kerry,
joe.kerry@ucc.ie

The Netherlands

RIKILT Institute of Food Safety (RIKILT), Hans Bouwmeester,
hans.bouwmeester@wur.nl

New Zealand

Institute of Environmental Science and Research Ltd (ESR)
Stephen On,
stephen.on@esr.cri.nz

Norway

Matforsk AS The Norwegian Food Research Institute (Matforsk)
Kjell-Ivar Hildrum,
kjell.ivar.hildrum@matforsk.no

Furuseth Slakteri AS (FSAS)
hf@furuseth.no

Prima Jaeren AS (PJAS)
Arne Loge,
arne@prima.as

Poland

Agricultural University of Poznan (AUP)
Ryszard Kowalski,
kowalski@owl.au.poznan.pl

National Veterinary Research Institute (NVRI)
Jacek Osek,
josek@piwet.pulawy.pl

Serbia and Montenegro

University of Novi Sad (UNS)
Sava Buncic,
buncic_sava@hotmail.com

Spain

Organizacion de Consumidores y Usuarios (OCU)
Gemma Trigueros,
trigueros@ocu.org

Institute of Agro-Food Research and Technology (IRTA)
Pierre Picouet,
pierre.picouet@irta.es

United Kingdom

Institute of Grassland and Environmental Research (IGER)
Nigel Scollan,
nigel.scollan@bbsrc.ac.uk

University of Bristol (UB)
Ian Richardson,
ian.richardson@bristol.ac.uk

Queen's University Belfast (QUB)
David Glenn Kennedy,
glenn.kennedy@dardni.gov.uk

British Nutrition Foundation (BNF)
Judith Buttriss,
j.buttriss@nutrition.org.uk

Ensors Abattoir Limited (EAL)
Steve Leyman,
s.leyman@ensros-ltd.co.uk

Celtic Pride Limited (CPL)

Tim Rowe,
tim.rowe@castellhowellfoods.co.uk

USA

John Sofos,
john.sofos@colostate.edu

Agricultural Research Service, United States Department of Agriculture (USDA)
Robert Mandrell,
mandrell@pw.usda.gov

Further information

www.prosafebeef.eu

ProSafeBeef project co-ordinator:

Declan Troy
Ashtown Food Research Centre
Ashtown
Dublin 15
Ireland
T: +353 1 8059500
F: +353 1 8059550
E: declan.troy@teagasc.ie

Project Manager:

Robert Mooney
Ashtown Food Research Centre
Ashtown
Dublin 15
Ireland
T: +353 1 8059956
F: +353 1 8059550
E: robert.mooney@teagasc.ie

EU Scientific Officer:

Dr. Laurence Moreau
European Commission
Research Directorate General (DG RTD)
Unit E3 - Food - Health - Well-being (RTD-E3)
Office SDME 088/36
B-1049 Brussels
Belgium
P: +32 2 29 81 448
F: +32 2 29 64 322
E: laurence.moreau@ec.europa.eu

ProSafeBeef is an Integrated Project funded within the EU Sixth Framework Programme.



Advancing Beef Safety and Quality through Research and Innovation



FOOD-CT-2006-36241



Ashtown Food
Research Centre



www.prosafebeef.eu

Advancing Beef Safety and Quality Through Research and Innovation

ProSafeBeef is an Integrated Project supported by a €10.9m grant under the 6th Framework Programme of the European Union.

This Project involves 41 leading research and industrial organisations working in 18 different countries

ProSafeBeef is a 5-year project which commenced on March 1st 2007.

Total Project Value: €17.8m.

The key objectives of ProSafeBeef are:

- Developing and applying quantitative risk assessment models to monitor, trace, and reduce microbial/chemical contamination in the beef chain
- Establishing novel control and intervention strategies for microbial pathogens at key points in the beef chain to maximise the safety of beef and beef products
- Satisfying consumer demand for diversity and choice and both invigorate and add value to the beef chain by developing innovative processing techniques and products
- Engaging with SMEs, expert collaborators from 3rd countries and INCO partners with a vested interest in beef export to assist in delivery of the ProSafeBeef project.

The Work Programme of the project is divided into seven integrated Pillars:

Pillar 1: Quantitative risk assessment of microbial and chemical hazards in beef

Pillar leader: Dr. Geraldine Duffy, Ashtown Food Research Centre, Ireland. geraldine.duffy@teagasc.ie

This Pillar will involve the development of quantitative risk assessment models for key microbial pathogens (verocytotoxigenic *E. coli*, *Salmonella*, *Listeria monocytogenes* and *Campylobacter*) in beef and beef products. Phenotypic and genotypic approaches will also be used to determine virulence potential, persistence and stress adaptation in pathogens transmitted through the beef chain. The microbial risk assessment models will support the development and assessment of control and intervention strategies for microbial pathogens in pillar 2. This pillar will also assess the risk posed by a range of chemical residues (including anti-parasitic agents) in beef.

Pillar 2: Control and intervention strategies, which can be implemented along the fork-to-farm chain to ensure safe beef

Pillar leader: Prof. George Nychas, Agricultural University of Athens, Greece. gjn@aua.gr

This Pillar focuses on the development and validation of new science-based technologies, interventions and measures that can be used alone or in combination (multiple hurdle strategy) at key stages in the beef chain including primary production (on farm and in animals), slaughter (hide decontamination), processing (use of natural antimicrobials) and the distribution chain (chill chain management). The potential risk of encouraging microbial resistance or of inducing changes in the natural beef microflora as a consequence of applying any new strategy will be considered in parallel.

Pillar 3: Producing safe beef and beef products with enhanced nutritional and eating quality characteristics

Pillar leader: Dr. Nigel Scollan, Institute of Grassland and Environmental Research, United Kingdom. nigel.scollan@bbsrc.ac.uk

This Pillar focuses on improving the nutritional and eating quality of beef and beef products while assuring safety for the consumer. Research will focus on factors leading to the development of nutritionally enhanced, more oxidative stable and better tasting beef, either as muscle cut directly from the carcass or as innovative value-added products from the rest of the carcass. Consumer attitudes and safety aspects of the new products will be taken into account throughout this Pillar.

Pillar 4: Innovations in processing to develop nutritive, convenient and added-value beef products

Pillar leader: Dr. Kjell Ivar Hildrum, Matforsk AS, The Norwegian Food Research Institute, Norway. kjell.ivar.hildrum@matforsk.no

This Pillar is concerned with developing and applying on-line/at-line surveillance, control and optimisation strategies alongside appropriate modelling technologies to improve existing and/or develop new beef products from lower value and/or underutilised beef cuts. The Pillar will contribute to the development of spectral surveillance and/or sorting systems optimised for specific beef products. In addition the work of this Pillar will focus on novel processing, cooking and packaging technologies.



Pillar 5: Consumer need for beef safety, information and acceptability of novel processed beef products

Pillar leader: Prof. Wim Verbeke, Ghent University, Belgium. wim.verbeke@ugent.be

This Pillar will investigate consumer perception, attitude and expectation with respect to beef safety, novel processing methods and new beef products. This will be achieved through a consumer programme that will include qualitative focus group discussions and quantitative experimental consumer research. This Pillar will function as a horizontal activity, providing input to the other Pillars about consumer needs and their expectations and acceptance of technologies and products developed by the other Pillars.

Pillar 6: Training, industry networking and dissemination of results

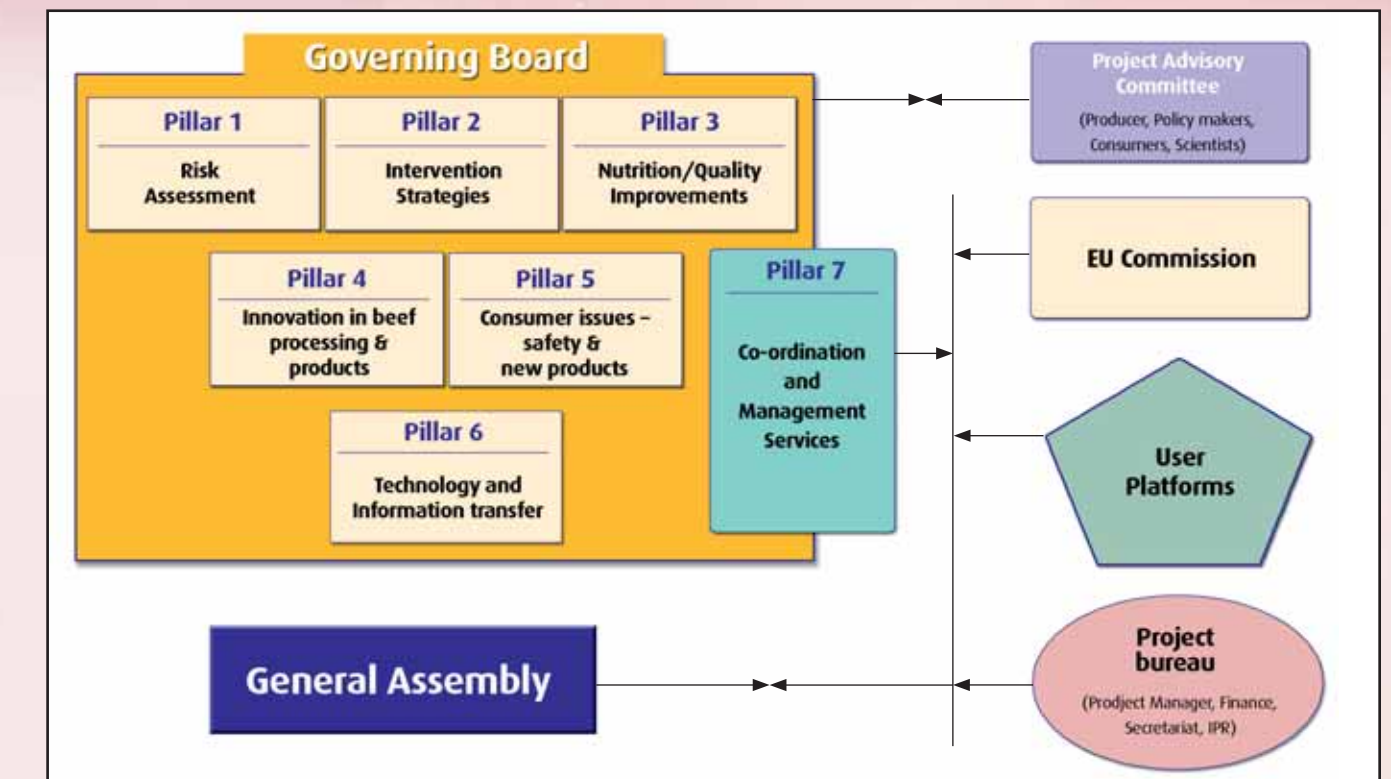
Pillar leader: Dr. Jean-Pierre Frenia, Association pour le Développement de l'Institut de la Viande. jp.frenia@adiv.fr

The overall objective of Pillar 6 is to set-up a structured and sustainable demonstration, technology transfer, training and dissemination network dedicated to the beef chain. Pillar 6 will regularly communicate with the end users of the technology produced and invite them to participate in our extension activities including training and demonstration. Much emphasis will be placed on "training the trainers" within the beef sector to allow up-skilling of industry personnel.

Pillar 7: Management and co-ordination

Pillar leader: Mr. Declan Troy, co-ordinator, Ashtown Food Research Centre, Ireland. declan.troy@teagasc.ie

This Pillar will oversee the management and co-ordination of the project.



Expected achievements:

ProSafeBeef will enable the beef industry in Europe to deliver innovative, novel, and improved fresh beef and beef products that are safe, high quality, and consumer-driven for national, regional and global markets thus allowing for a more competitive and sustainable industry.

This project will develop a strategically focused beef safety management system based on the principles of quantitative risk assessment and the development of new control and intervention strategies that inspire confidence in the beef chain and is consistent with the wider expectations and needs of European consumers.

The project will satisfy consumer demand for choice and both invigorate and add value to the beef chain (fork-to-farm) by developing innovative beef processing techniques and innovative beef products that are safe, attractive to the customer and of high nutritional quality.

ProSafeBeef will engage with SMEs, expert collaborators from third countries and INCO partners with a vested interest in stimulating the beef industry by advancing beef safety through research and innovation. The research outputs will be delivered to stakeholders through a strategic work plan integrating demonstration, technology transfer, dissemination and training activities.