SOLID project promotes organic and low input dairying in Europe

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SOLID

• EU FP7 funded project  [www.solidairy.eu](http://www.solidairy.eu)
• 25 partners from 10 different countries
  – Coordinator Prof. Nigel Scollan University of Aberystwyth, Wales, UK
  – Universities, Research Institutes, Knowledge Centres and 10 SME’s
• 5 years, (2011-2016)
• Total budget ~ 6 million euros
SOLID objectives

The SOLID project will support developments and innovations in organic and low input dairy systems to optimize competitiveness while

• maximising the potential of these systems to deliver environmental goods and biodiversity, and

• optimising economic, agronomic and nutritional advantages for the development of innovative and sustainable organic and low input dairy systems and supply chains.
Work is done in 7 WPs

1. Innovation through stakeholder engagement and participatory research
2. Adapted breeds
3. Novel feeds and decision support models
4. Develop a knowledge platform to assess environmental sustainability
   • Sanna Hietala et al. Greenhouse gas emission of organic dairy farms from six European countries
5. Supply chain and consumer analysis
   • Terhi Latvala et al. Identifying future challenges of the organic milk supply chain in Europe
6. Socio-economic evaluation
7. Knowledge exchange, training and innovation

All WPs contain many Tasks!
WP1. Participatory

• Utilise the knowledge and experience of farmers (and other stakeholders)

• Work with their willingness to identify and experiment with novel strategies and approaches

• Enabling farmers to deal with constraints of low-input and organic dairy systems
WP2. Adapted Breeds

• Contribute to a better understanding of adaptation of breeds identified by producers
  – background: information about production, milk quality, fertility, etc.
  – physiological level: biomarkers
  – energetic level: energy efficiency

• Assessing animal health & welfare under conditions typical for European systems
WP3. Novel Feeds

• To improve competitiveness through improving the feed supply
  – improving the supply of nutrients from forages and by-products through the use of novel feeds
  – understanding the efficiency with which high forage diets are utilized by dairy cattle
  – reducing risk and the provision of decision support systems for forage management and feeding
WP4. Environmental assessment

• Build up knowledge platform for assessing environmental sustainability
  – to develop and apply LCA based tools for producing conventional and novel environmental indicators in multifunctional dairy systems
  – to identify the sustainability hotspots
  – to integrate the LCA approach with other sustainability indicators
  – to analyse the eco-efficiency and sustainability gains from innovations

POSTER: Sanna Hietala et al. Greenhouse gas emission of organic dairy farms from six European countries
WP5. Supply Chains

- Identify the broad range of expectations for innovation in management practices and adapted breeds along the whole supply chain
- Assess the acceptability of novel strategies
- Optimal strategies to enhance collaborative behaviours in order to introduce acceptable innovations enhancing competitiveness and sustainability along the whole supply chain

Terhi Latvala et al. Identifying future challenges of the organic milk supply chain in Europe
WP6. Competitiveness

• Identify factors that have led to the profitability of high performing organic, low input and conventional dairy farms

• Utilise an Integrated Assessment (IA) tool for the rapid assessment of competitive sustainability of organic and low input dairy farms

• Effect of novel strategies on EU dairy typical farm types through farm scale and sector scale modelling of proposed novel strategies

• Policy implications of more widespread adoption of novel strategies developed within the SOLID within the EU
WP7. Dissemination

• Analyse outputs from WP1-6 and target stakeholders

• Use innovative and participatory methods to ensure that they are effectively disseminated among target groups

• Create a participatory framework for structured and continuous dialogue between partners and stakeholders
  – to ensure that SOLID meets the needs of end-users

• Organise national and regional advisory and scientific workshops and a final conference to enhance relevance of research to end-users
Strategies to improve animal productivity, milk quality, and animal health and welfare in organic and low input dairy systems

WP2 Adapted breeds

WP3 Novel forages

WP1 Innovation through stakeholder engagement and participatory research

STAKEHOLDERS AND USERS

WP7 Knowledge exchange, training and innovation

WP4 Environmental assessment

WP5 Supply chain and consumer analysis

WP6 Socio-economic evaluation

Environmental, supply chain and competitiveness impacts of innovations

WP8 Management

SOLID framework: Arrows indicate flows of information (→), data (-----) and samples (→→)
The Project website is www.solidairy.eu with e.g. previous publications related to this topic.