Structured Documentation

ORGANIC ACTIONPLAN

Deliverable 11: European Action Plan Analysis

EU-Project

ORGAP

Contract No. CT-2005-006591

WP4 final report
(with restricted circulation for use in WP5)

April 2008

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SIXTH FRAMEWORK PROGRAMME

Funded by the European Commission under the Sixth Framework Programme for European Research & Technological Development (2002-2006), Thematic Area Scientific Support to Policies, and by the Dutch Ministry of Agriculture, Nature and Food Quality

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Executive Summary

Since 2001, the European Commission has followed principles of good governance (EC, 2001). The objective of the European Commission is to achieve greater involvement of citizens in legislative processes and to speed up the adoption of a common policy framework in all European Member States. One of the five principles of good governance is participation in the formulation of policies and their implementation.

In June 2004 the European Commission published the European Action Plan for Organic Food and Farming (EU Commission 2004).

The European Commission's "Draft Working Paper on Ex-ante Evaluation" consider the following categories of judgement criteria for ex-ante evaluation of plans and programmes:

- •relevance (of the plan/programme to needs identified);
- •effectiveness (whether the objectives of the programme are likely to be achieved);
- •utility (judging the likely impacts against wider social, environmental and economic needs).

More specific evaluation questions for each ex-ante evaluation are:

- internal and external coherence of the plan/programme;
- the quality of implementation systems;
- the potential risks for the programme, both in relation to the policy choices made and the implementation system proposed

Internal and external coherence relates to the structure of the plan/programme and its financial allocations and the linkage of the plan/programme to other regional, national and Community policies.

The quality of the proposed implementation system is important in order to understand how it may affect the achievement of plan/programme objectives. Implementation is subject to risk of failure, and this varies in relation to the different policy choices made.

The aim of this report is to provide a first evaluation of the EU Organic Action Plan (OAP) and the Organic action plan evaluation toolbox (ORGAPET). This will be done in two steps:

1. the first step will provide a policy analysis of the EU Organic Action Plan in order to identify the potential risks and problems associated to its implementation, and assess the quality of the main indicators from the ORGAP evaluation toolbox;
2. the second step will develop strategies aimed at resolving the potential conflicts and exploiting the synergies in order to facilitate implementation of the EU OAP at national level.

These two aims were reflected in the methodological and results structure of this report. The first aim dealt with the identification of potential implementation problems, while the second one is addressed to analyse the EU Action Plan implementation.

Methodology

In order to provide an early assessment of potential risks and problems associated with the implementation system of the EU OAP, we used an adapted version of (process) Failure Mode &

Effect Analysis (FMEA) combining the knowledge of a Core Team made of researchers from partner institutions (AND, CH, CZ, DE, DK, IT, NL, SI, UK) with external expertise of a Support Team (Advisory Committee, EU Commission).

The core team used a special laddering questionnaire to elicit what can go wrong (list of problems) and to define the logical cause-effect structure of the problem, by identifying all possible causes of each problem. This has been done using the Means-End Chain model. A cognitive map has been created, in order to visually identify links between causes and effects. Based on the results of the laddering exercises, in the second task a specific questionnaire has been submitted to the core and the support team: using 10-points Likert-type scales, for each failure mode (composed by a cause and an effect), the team has estimated the severity/seriousness (cost/impact) of the "failure", how likely is that each potential "failure" will happen (occurrence) and the likelihood of detecting the "failure" using ORGAPET indicators . Once all experts have filled in the questionnaire, a Risk Priority Number (RPN) is calculated based on the product of: Detection X Severity X Probability of Occurrence. RPN will enable ranking of the most important problem areas for which the indicators provided in the toolbox may perform insufficiently. The minimum expected RPN is 1 and maximum 1000.

In addition the prototype ORGAPET toolbox with reference to the early stages of implementation of the EU Organic Action Plan has been tested. Where available, baseline secondary data relevant to the ORGAPET indicators was obtained to provide some experience with operating ORGAPET at the European level and a baseline for future evaluations of the action plan. A qualitative assessment of the ORGAPET evaluation toolbox for use at the European level, was performed by means of desk research and meetings among partners, in terms of the MEANS quality criteria:

- *availability* and "*freshness*" of secondary data at regular intervals for the measurement of indicators;
- *sensitivity* of the indicators provided, that is the responsiveness of the indicators to the implementation of the EU Organic Action Plan;
- *reliability* of the toolbox, in terms of acceptance by stakeholders;
- *comparability* of the toolbox with evaluations developed for national organic action plans;
- *normativity* of the indicators included in the toolbox, i.e. the availability of a reference norm for their judgement.

Additionally, the relevance of the indicators to the EU organic action plan was also assessed.

Once the initial structuring of available information was completed, an assessment of the quality of the indicators was conducted with each indicator scored for its overall quality characteristics with respect to the action plan as a whole. The scoring system used was 0-3 representing no, low, medium or high score respectively.

For an evaluation of the internal and external coherence of the EU Organic Action Plan (OAP), we have generally made use of empirical methods and techniques suggested for analysing the synergy of programmes as well as their cross-impacts.

Internal coherence can be analysed by separately appraising the following main three constituent factors: (1) The interdependence of the EUOAP objectives, i.e. the way how objectives are related to one another. (2) The extent to which the planned actions are relevant as regards the ob-

jectives of the OAP. (3) The complementarity of actions and OAP objectives, i.e. the extent to which planned actions are mutually supportive in achieving the objectives.

External coherence can be appraised with respect to the synergy with other policies, both at the EU (e.g. Rural Development Regulation) or national level (e.g. national organic action plans) which results from complementary or conflict with other European interventions or national / local initiatives. Given the limited funding and time frame, we have chosen to limit ourselves to analyse the synergy and conflicts with National Action Plans.

A policy analysis of key synergies was performed by means of a matrix of cross impacts as specified in the MEANS framework.

Two separate matrixes were constructed:

- to appraise the internal coherence between the various measures of the EU Action Plan;
- to appraise the external coherence between the EUOAP and some National Organic Action Plans.

Experts involved in this evaluation process (Evaluation team) identified any synergy which may exist between pairs of measures or categories of measures. The effects of synergies or conflicts have been rated with the help of 2 electronic consultation rounds. After validation of these ratings, the calculation of the "synthetic" coefficient of synergy was performed, in order to evaluate the overall level of synergy/conflict within the Action Plan. Cs+ and Cs- represent these synthetic coefficients of positive and negative synergy for each measure. If all potential synergies (conflicts) between measures had received the maximum score, the coefficient would be equal to 1.00 (-1.00). The coefficient would be equal to 0.00 if neither positive nor negative synergies exist.

Assessing the risks of failure of the implementation system of the EU OAP

A quick inspection reveals that no single failure mode is particularly risky, since the maximum mean value is 210 while theoretical maximum is 1000.

RPNs include information about the probability of detection of the failure modes by the proposed indicators. The detection mean values (non shown for conciseness) range from 3,5 (High probability of detection to moderately high chance of detection) to 4,8 (moderately high chance of detection to moderate chance of detection) which indicate that in general – for the selected failure-modes – the ORGAPET indicators may perform sufficiently.

Assessing the quality of the system of indicators

While the process involved four distinct stages: analysis, quality assessment, consultation and revision, the results are presented here in an integrated approach focus on each main group of indicators in turn.

While the trends on many indicators since 2004 when the EU action plan was launched can be seen as positive (for example the growth in production area, numbers of holding and market size), it may not be possible to attribute these changes directly to the action plan. As the plan is still in the implementation phase, most of the effects may still be to come; in particular, the new regulation and the promotion campaign will only be fully implemented in 2009, and the new logo not until 2010. It is therefore necessary to consider other causal factors, including wider economic/market conditions, as well as national policy initiatives that may complemented or counter the EU-level actions. If there is general growth in the sector, is there a difference in the rate of growth before and after the implementation of the action plan? What would have been the

policy environment if the action plan had not been implemented (the counter-factual situation)? (Arguably, as the EU action plan is based on several existing policies such as research and rural development support, there may not be much difference, apart from the aspects directly related to reform of the regulation.)

Assessing the internal and external coherence of the EUOAP

Synergies between measures largely prevail while the opinions on conflicting actions are not shared by all members of the team.

The analysis suggests that Actions 9 (ensure integrity of organic agriculture) and 10 (standard harmonisation) are essential for the success of the EUOAP, given their synergetic effects. They in addition enter into synergy with many other actions. Interesting is also Action 13 (risk-based inspections) with an high coefficient of synergy and number of measures with which has interactions.

By contrast, Action 4 (fruit and vegetable support) appears a stand-alone measure, since it enters into synergy with an aver-age of 3 actions only. Action 16 (better coordination) is somewhat peculiar, since it has a fairly weak coefficient of synergy (0.59) but which enters into synergy with many other actions (68). In this case Action 16 has a weak potential for synergy although having numerous interactions, since these are individually weak. In addition Action 16 combines positive and negative effects of synergy, even if the conflict seems to be very weak.

Concerning the coefficient of conflict, the highest negative effect of synergy can be found for actions 8 (define principles), 20 (global harmonisation and trade) and 21 (recognition of EU standards). But this depends on the behaviour of Denmark which showed very high conflicts between actions 8 and 20 and action 21.

Synergies between EU actions and national AP prevail while in most cases no conflicts exist between EU and National Action Plan.

Specifically, synergy between areas of action of EU OAP with the national AP differ from country to country while just in few cases there is a conflict between EU OAP and national AP: in Denmark for action 8 (define principles) and in Italy for action 4 (fruit and vegetable support).

Conclusion

The assessment of programme content and failure risks is an important part of understanding the reasons for success or failure in terms of results and impacts. A poorly-designed programme could prove to be ineffective in terms of uptake, and inefficient in terms of resource use. Both these factors might impact negatively on stakeholder perceptions and affect future development potential of the organic sector. A well-designed programme should have well-specified objectives with a clear logical relationship between the objectives and the measures and actions intended to achieve them. Opportunities to maximise positive synergy between programme elements should be exploited. Clear priorities should be identified. Potential failure risks should be identified and measures put in place to reduce those risks. Evaluators should seek to identify whether these issues were addressed as part of the programme development and to identify issues in the design of the programme that might impact on, or help interpret, the eventual outcomes of the programme.

ORGAPET and its indicators appear as a good base for the detection of many problems regarding implementation of organic agriculture policy. The probability of detecting failure mode by ORGAPET toolbox is moderately high which means that the list of main indicators are able to face with the logical cause-effect structure of the problems. Clearly, indicators should probably

be improved in order to explain in a more precise way what are the information included. This because in some cases the indicators seem to be unrealistic or just not available.

Concerning synergies and conflicts among actions, there is a substantially agreement on synergies among experts concerning each specific action. On the other hand, it is clear that there is no agreement on conflicts among experts on each specific actions.

Acknowledgements

We would like to thank all project partners for carrying out the documentation in their country. This report was produced with financial support from the Commission of the European Community under the 6th Framework Programme “Integrating and Strengthening the European Research Area, Policy-oriented Research” for the project " European Action Plan for Organic Food and Farming: Development of criteria and procedures for the evaluation of the EU Action Plan for Organic Agriculture (ORGAP)". The views expressed are those of the authors and do not necessarily reflect the views of the European Commission, nor do they in any way anticipate the Commission's future policy in this area.

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List of Abbreviations

AP	Action Plan
EU OAP	European Union Organic Action Plan
EC	European Commission
EU	European Union
OF	Organic Farming
ORGAP	European Organic Action Plan for Organic Food and Farming
Reg.	Regulation
ORGAPET	European Organic Action Plan Evaluation Toolbox
HVM	Hierarchical Value Map
FMEA	Failure Mode & Effect Analysis
MS	Member States

Country Codes

AND	Andalusia
CZ	Czech Republic
DE	Germany
DK	Denmark
ENG	England
EU	European Union
IT	Italy
NL	Netherlands
SI	Slovenia

1 Introduction

Since 2001, the European Commission has followed principles of good governance (EC, 2001). The objective of the European Commission is to achieve greater involvement of citizens in legislative processes and to speed up the adoption of a common policy framework in all European Member States. One of the five principles of good governance is participation in the formulation of policies and their implementation

In June 2004 the European Commission published the European Action Plan for Organic Food and Farming (EU Commission 2004).

The resulting European Action Plan for Organic Food and Farming did not originally accompany any specific policy measures, or a budget for specific policy goals. It resulted however, in the much-discussed revision of Council Regulation (EEC) 2092/91. The revision process itself has been criticised with regard to insufficient stakeholder involvement (Eichert et al., 2006). Key policy actions within the European Action Plan for Organic Food and Farming, such as addressing organic farming within Rural Development Programmes, were left to the Member States. Nevertheless, the Action Plan Document provided justification for a range of measures and a list of ideas for national implementation. Currently, all Member States have opted to address organic farming through specific support measures

The aim of this report is to provide a first evaluation of the EU Organic Action Plan (OAP) and the Organic action plan evaluation toolbox (ORGAPET). This will be done in two steps:

1. the first step will provide a policy analysis of the EU Organic Action Plan in order to identify the potential risks and problems associated to its implementation, and assess the quality of the main indicators from the ORGAP evaluation toolbox,.
2. the second step will develop strategies aimed at resolving the potential conflicts and exploiting the synergies in order to facilitate implementation of the EU OAP at national level will seek to identify baseline quantitative data to provide the basis for future evaluations. The results of this step will provide a basis for WP5, allowing corrective measures, if required, to be considered at a relatively early stage of adoption of the EU Organic Action Plan.

These two aims were reflected in the methodological and results structure of this report.

The first aim dealt with the identification of potential implementation problems, while the second one is adrdressed to analyse the EU Action Plan implementation.

This document reports the findings of the ORGAP Project WP4.

2 Materials and Methods

2.1 Identification of potential implementation problems: an introduction

The objective is to provide an early assessment of potential risks and problems associated with specific policy-relevant areas.

The EU Organic Action Plan has been analysed. A list of potential risks and problems have been generated, offering as many issues as possible. For each potential problem area listed, experts have estimated the likelihood of detecting the problem by using the ORGAPET toolbox[1] developed in WP2, as well as the level of seriousness, taking into consideration the demographic and geographic impact (e.g. number of individuals and land area affected) as well as the potential costs associated to it. An estimation of the likelihood that each potential problem will actually occur has then been performed, taking into consideration the complexity of the system analysed. Appropriate scales have been developed for each estimation: as an outcome, a risk priority number (RPN) is generated, resulting from the product of the previous estimates.

This task is based on an adapted version of (process) Failure Mode & Effect Analysis (FMEA) (McAndrew & Sullivan, 1993) combining partners' (Core Team) knowledge with external expertise (Advisory Committee, EU Commission) named Support Team.

A Failure Mode & Effect Analysis (FMEA) is an engineering technique used to define, identify, and eliminate known and/or potential failures, problems, errors and so on from the system, design, process, and / or service they reach the customer (Omdahl, 1988). With a good FMEA it is possible to:

- Identify known and potential modes
- Identify the causes and effects of each failure mode
- Prioritize the identified failure modes according to the risk priority number (RPN) the product of frequency of occurrence, severity and detection
- Provide for problem follow-up and corrective action

The RPN allows the ranking of the most relevant problem areas for which the indicators provided in the toolbox may perform insufficiently and need to be further investigated.

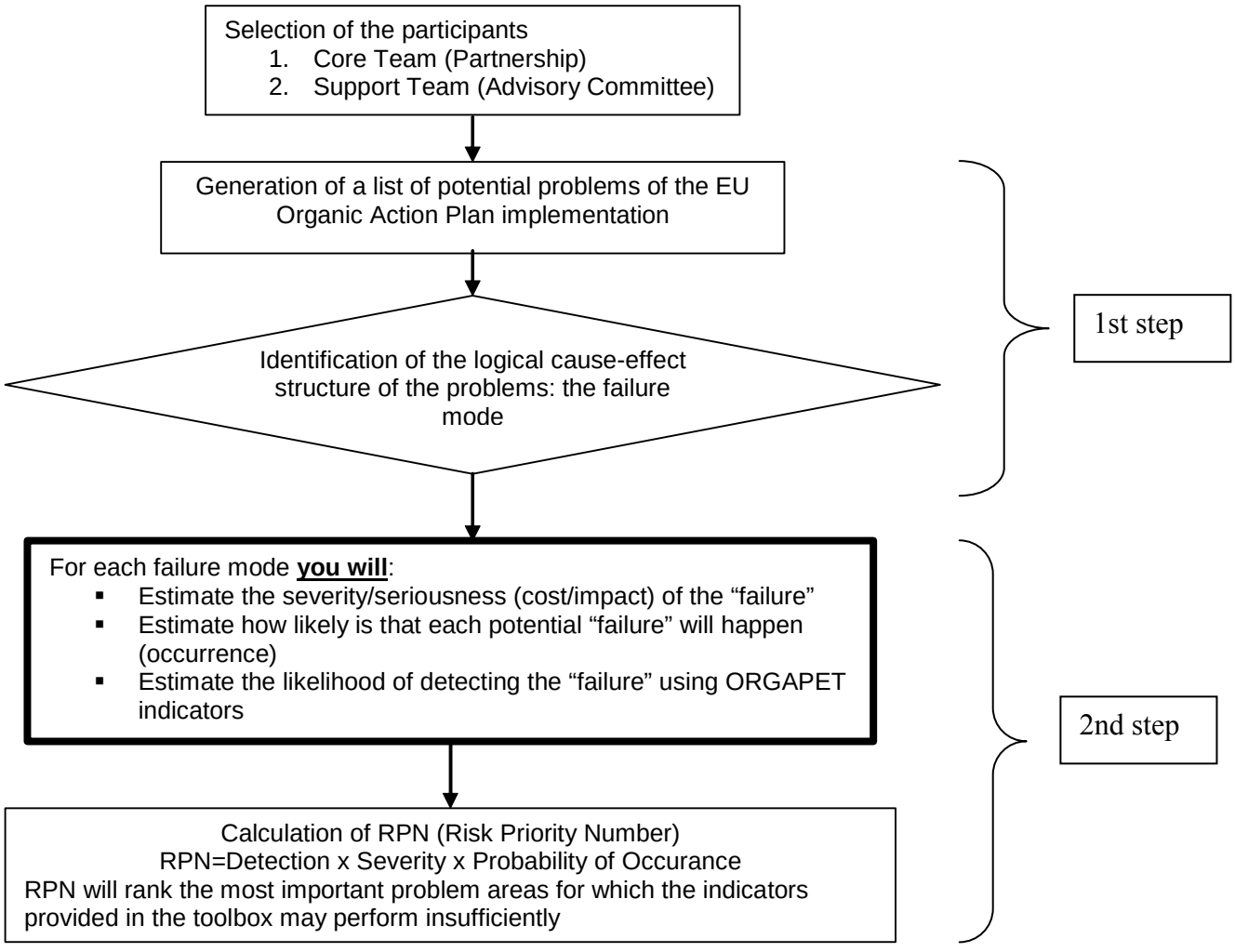
[1] The ORGAP evaluation toolbox (ORGAPET) is a collection of different evaluation tools, including participative techniques, quantitative assessments and methods to identify relevant indicators, which could be used selectively to meet the needs of a particular assessment of national or EU action plans. ORGAPET is therefore not a single piece of software or a set of procedures to be followed strictly in their entirety.
The toolbox is structured around 'compartments' or sections containing 'tools' fulfilling different functions. Each section contains an overview paper and a series of Annexes detailing a range of methodological approaches (including written materials, relevant software and other items) and examples of how these have been applied in specific cases. As the toolbox is developed, the contents will be subject to continual revision and updating.

FMEA offers a structure for:

- Thinking through
  - the likelihood,
  - seriousness,
  - and probability of detection of potential implementation problems.
- Prioritize actions
- Document the process

In the following scheme is showed the approach used (Figure 1)

Figure 1: Flow chart of FMEA method



2.1.1 First step: identification of potential implementation problems related to EU OAP

In order to identify and rank the most relevant problem areas (of the EU OAP implementation and for which the indicators provided in ORGAPET may perform insufficiently) the Core and Support Team used a special laddering questionnaire (Appendix 1) to:

- Elicit what can go wrong (list of problems)
- Define the logical cause-effect structure of the problem, by identifying all possible causes of each problem

The problem in this way could be then logically decomposed in fault trees/ladders. To the Team has been asked to:

1. generate a list of potential failures and problems of the EU OAP implementation;
2. list these failures and problems and rate their importance.

One way to do this is by applying an adapted version of the method illustrated by Reynolds and Gutman (1988) and latter applied to goal structures by Pieters et al. (1995).

Once the list has been generated, the core team individually, identified all possible causes of each problem/failure by using the Means-End Chain model.

Laddering is a Means-End Theory in-depth probing approach which attempts to uncover the link between different levels of one subject's knowledge in order to reconstruct the structure of her cognitive network. In applying laddering to FMEA, the aim is to define the logical cause-effect structure of the potential risks & problems of an Action Plan implementation, by identifying all possible causes of each problem.

Reynolds and Gutman original approach used a one-to-one in-depth interview to elicit the components of the cognitive network. In FMEA, laddering can be performed more quickly by a paper-and-pencil approach. A specific laddering questionnaire has been developed for this task. A series of direct probes help the respondent to "climb up the ladder" and link the chosen problems with the (potential) causes.

The analysis of the raw responses gathered through the laddering questionnaire is made up of several steps (Gengler and Reynolds, 1995). Specifically, responses should be coded into chunks of meaning, possibly by (at least) two independent coders. These chunks should then be listed in "ladder format" following the iterative coding procedure suggested by Reynolds and Gutman (1988) which yields ladders composed of links between causes and effects. The two independent coders should then classify each of the chunks, using a jointly developed set of codes. The index of reliability between the judges (Perrault and Leigh, 1989) was 0.78[2], exceeding the recommended guideline (inter-rater-reliability ≥ 0.70, the theoretical maximum being 1). All disagreements were resolved by discussion. 22 people filled in the laddering questionnaire. The coding of ladders made use of 41 codes.

[2] Index of reliability: $\sqrt{(F/N-1/k)*(k/(k-1)}$ where F=frequence of agreement, N=numbers of chunks, k=numbers of used codes

A cognitive map could then be created, in order to visually identify links between causes and effects (failure modes)[3]. The result is very similar to a tree diagram: these will be shown in the next chapter

2.1.2 Second step: Evaluation of the EU OAP and the ORGAP evaluation toolbox

In a second step, the core and support team have evaluated the EU OAP and the ORGAP evaluation toolbox (ORGAPET). In order to have more data for the analysis, the IFOAM group was involved in this exercise.

Based on the results of the laddering exercises, a specific questionnaire has been submitted to the core and the support team (Appendix 2).

Using 10-points Likert-type scales, for each failure mode (composed by a cause and an effect), the team has estimated

- the *severity/seriousness (cost/impact)* of the "failure"
- *how likely* is that each potential "failure" will happen (occurrence)
- the *likelihood of detecting* the "failure" using ORGAPET indicators

SEVERITY

The team ranked each failure mode answering the question:

'*What is the severity/seriousness of the "failure"?*'

An appropriate scale has been developed to identify the level of severity/seriousness of the failure, ranging from None (1) to Hazardous(10).

OCCURENCE

The team ranked each failure mode answering the question:

What is the likelihood that failure mode will occur?

An appropriate scale has been developed to identify the level of severity/seriousness of the failure, ranging from Nearly Impossible (1) to Extremely High: Failure Almost Inevitable (10).

LIKELIHOOD OF DETECTING

The team ranked each failure mode answering the question:

What is the probability of detecting failure mode by ORGAPET toolbox?

An appropriate scale has been developed to identify the level of severity/seriousness of the failure, ranging from Almost certain detection (1) to Absolute Uncertainty: No control (10).

In addition, the team identified, for each cause and for each effect, which of the high priority list of indicators (for a complete list of indicators used in this exercise please see Annex 1), in the ORGAPET toolbox, (developed by the University of Wales) are appropriate. In other words, the team has selected:

- two indicators for each cause from the list of high priority indicators
- two indicators for each effect from the list of high priority indicators

[3] A specific software is available to ease this task, i.e. MecAnalyst+ by Skymax-DG.

The aim of this last part was to verify if the list of high priority indicators was able to face/to cope with the logical cause-effect structure (failure-mode) of the problems regarding the implementation of organic agriculture policy. In other words, the aim of this exercise is to verify if the developed list of indicators was of a high-quality.

Once all experts have filled in the questionnaire, a Risk Priority Number (RPN) has been calculated based on the product of:

Detection X Severity X Probability of Occurrence

RPN will enable ranking of the most important problem areas for which the indicators provided in the toolbox may perform insufficiently. The minimum expected RPN is 1 and the maximum 1000.

2.2 Assessment of the quality of the system of indicators

The objective of this task was to test the prototype toolbox developed in WP2 with reference to the early stages of implementation of the EU Organic Action Plan. Where available, baseline secondary data relevant to the ORGAPET indicators was obtained to provide some experience with operating ORGAPET at the European level and a baseline for future evaluations of the action plan. This was supported by P2 (UWA) on the basis of data gathered in the EU-CEE-OFP, OMIARD, EISFOM and IRENA projects. A qualitative assessment of the ORGAPET evaluation toolbox for use at the European level, based on this experience and previous experience gained in WP3 regarding the national action plans was performed by means of desk research and meetings among partners, in terms of the MEANS quality criteria:

a) *availability* and "*freshness*" of secondary data at regular intervals for the measurement of indicators;

b) *sensitivity* of the indicators provided, that is the responsiveness of the indicators to the implementation of the EU Organic Action Plan;

c) *reliability* of the toolbox, in terms of acceptance by stakeholders;

d) *comparability* of the toolbox with evaluations developed for national organic action plans;

e) *normativity* of the indicators included in the toolbox, i.e. the availability of a reference norm for their judgement.

Additionally, the *relevance* of the indicators to the EU organic action plan was also assessed.

Further information on the quality assessment of indicators can be found in Section C2 of ORGAPET.

2.3 Policy analysis of EU Action Plan implementation

The European Commission's "Draft Working Paper on Ex-ante Evaluation" consider the following categories of judgement criteria for ex-ante evaluation of plans and programmes:

a) relevance (of the plan/programme to needs identified);

b) effectiveness (whether the objectives of the programme are likely to be achieved)

c) utility (judging the likely impacts against wider social, environmental and economic needs)

More specific evaluation questions for each ex-ante evaluation are:

1. internal and external coherence of the plan/programme;
2. the quality of implementation systems;
3. the potential risks for the programme, both in relation to the policy choices made and the implementation system proposed

Internal and external coherence relates to the structure of the plan/programme and its financial allocations and the linkage of the plan/programme to other regional, national and Community policies.

The quality of the proposed implementation system is important in order to understand how it may affect the achievement of plan/programme objectives. Implementation is subject to risk of failure, and this varies in relation to the different policy choices made.

For an evaluation of the internal and external coherence of the EU Organic Action Plan (OAP), we have generally made use of empirical methods and techniques suggested for analysing the synergy of programmes as well as their cross-impacts.

Internal coherence can be analysed by separately appraising the following main three constituent factors: (1) The interdependence of the EU OAP objectives, i.e. the way how objectives are related to one another. (2) The extent to which the planned actions are relevant as regards the objectives of the OAP. (3) The complementarity of actions and OAP objectives, i.e. the extent to which planned actions are mutually supportive in achieving the objectives.

External coherence can be appraised with respect to the synergy with other policies, both at the EU (e.g. Rural Development Regulation) or national level (e.g. national organic action plans) which results from complementary or conflict with other European interventions or national / local initiatives. Given the limited funding and time frame, we have chosen to limit ourselves to analyse the synergy and conflicts with National Action Plans.

A policy analysis of key synergies was performed by means of a matrix of cross impacts as specified in the MEANS framework (EC, 1999).

Depending on the structure of the programme concerned, it will be more relevant to analyse synergy between the axes, the measures, the actions or the projects. The level of analysis chosen obviously depends on the number of programme components at each level. Some programmes consist of only a few projects, which makes it possible to rapidly analyse synergy at their level. If the number of projects is very high, it may be preferable to analyse synergy at the measures level. The choice of a level of analysis can be made by referring to the objectives tree (EC, 1999).

Once a level of analysis has been chosen, the matrix of cross impacts is constructed with as many lines and columns as there are programme components at that level.

Two separate matrixes were constructed:

- to appraise the internal coherence between the various actions of the EU Action Plan;
- to appraise the external coherence between the EU OAP and some National Organic Action Plans.

In order to ensure convergence of opinions of experts involved in this evaluation process (Evaluation team – in this specific case the Core Team), the rating of the effects of synergies or conflicts has been performed in two subsequent rounds.

2.3.1 First round:

Concerning the first matrix, experts evaluated the overall level of synergy/conflict of the 21 actions of the EU OAP (Table 1). Experts identified any synergy which may exist between pairs of actions of the EU OAP. Only the BOTTOM half of the matrix (that below the main diagonal) has been filled in unless experts strongly supported cases of asymmetrical synergy (relationship of non-reciprocal interdependence). The main diagonal has NOT been filled in (for a complete list of OAP measures please see Appendix 3).

Table 1: Matrix of cross impacts on 21 actions of the EU OAP (an example)

EU AP	Action 1: Develop an information and promotion campaign by amending Reg. 2826/2000	Action 2: Establish and maintain an Internet database listing the various private and national standards	Action 3: Improve the collection of statistical data on both production and marketing of organic products	…	…
Action 1: Develop an information and promotion campaign by amending Reg. 2826/2000					
Action 2: Establish and maintain an Internet database listing the various private and national standards					
Action 3: Improve the collection of statistical data on both production and marketing of organic products					
…					
…					

Concerning the second matrix, again experts evaluated the overall level of synergy/conflict of the EU OAP with their national AP.

Rows: groups of EU OAP actions Task 2.2:

- Common standards
- Common label
- European market
- International trade
- Rural development policy
- EU guided information and promotion
- Joint research programmes

- Environmental and other concerns

Columns: areas defined in Task 3.1

- Information
- Training and education
- R&D
- Supply and producer support
- Processing
- Market development
- Certification and inspection
- Institutional development

Experts identified any synergy which may exist between areas of action of EU OAP and their national AP. In this case the direction of the effects is clear: from EU to National.

When some kind of synergy seemed possible, a value on the following scale has been chosen corresponding to the size of the effect (European Commission, 1999):

+2	for a particularly strong effect of synergy
+1	for a weaker effect of synergy
0	no synergy or conflict
-1	the same scale applied to negative synergy (conflict)
-2	the same scale applied to negative synergy (conflict)

2.3.2 Second round:

In a second round, experts have discussed and validated assumptions regarding synergies/conflicts presented in the matrix..

After validation of these ratings, the calculation of the "synthetic" coefficient of synergy has been performed, in order to evaluate the overall level of synergy/conflict within the Action Plan. Cs+ and Cs- represent these synthetic coefficients of positive and negative synergy for each actions. If all potential synergies (conflicts) between actions had received the maximum score, the coefficient would be equal to 1.00 (-1.00). The coefficient would be equal to 0.00 if neither positive nor negative synergies exist.

$$C_{s+} = \frac{Sumofpositivescores}{(Numberofpositivescores) * 2}$$

$$C_{s-} = \frac{Sumofnegativescores}{(Numberofnegativescores) * 2}$$

To facilitate the interpretation, to the Cs+ and Cs- columns, the columns Tot S+, Tot S- (sum of positive and negative scores) and Nr n+, Nr n- (number of positive and negative scores) should be added..

In addition, the calculation of Tot Sum S_+ and S_- show the sum values of synergy and conflicts respectively for all experts, while the Tot Sum N_+ and N_- count the number of positive and negative scores in the matrix again for all experts which is very useful for the analysis because it shows if a measure enters into synergy with many or few other measures (the total interactions should be the number of measures 21 multiplied for the number of experts 7 = 147).

In order to have a global picture, total average Cs+ and Cs- have been calculated as the average synthetic coefficients for each actions across all expert judgements.

In addition, the Coefficient of Variation for C_{s+} and C_{s-} has been calculated. The coefficient of variation (CV) is a measure of dispersion of values within a sample. It is defined as the ratio of the standard deviation σ to the absolute value of mean μ :

$$CVC_{s+} = \frac{\sigma}{|\mu|}$$

$$CVC_{s-} = \frac{\sigma}{|\mu|}$$

If the standard deviation is equal to its mean, its coefficient of variation is equal to 1. Distributions with CV < 1 are considered low-variance, while those with CV > 1 are considered high-variance.

More specifically:

If $\sigma < |\mu|$ then $CVC_{s+} < 1$: there is a relative agreement on synergies/conflicts among experts concerning a specific measure.

If $\sigma > |\mu|$ then $CVC_{s-} > 1$: there is little agreement on synergies/conflicts among experts concerning a specific measure.

3 Identification of potential implementation problems: some results

3.1 First step: identification of potential implementation problems related to EU OAP

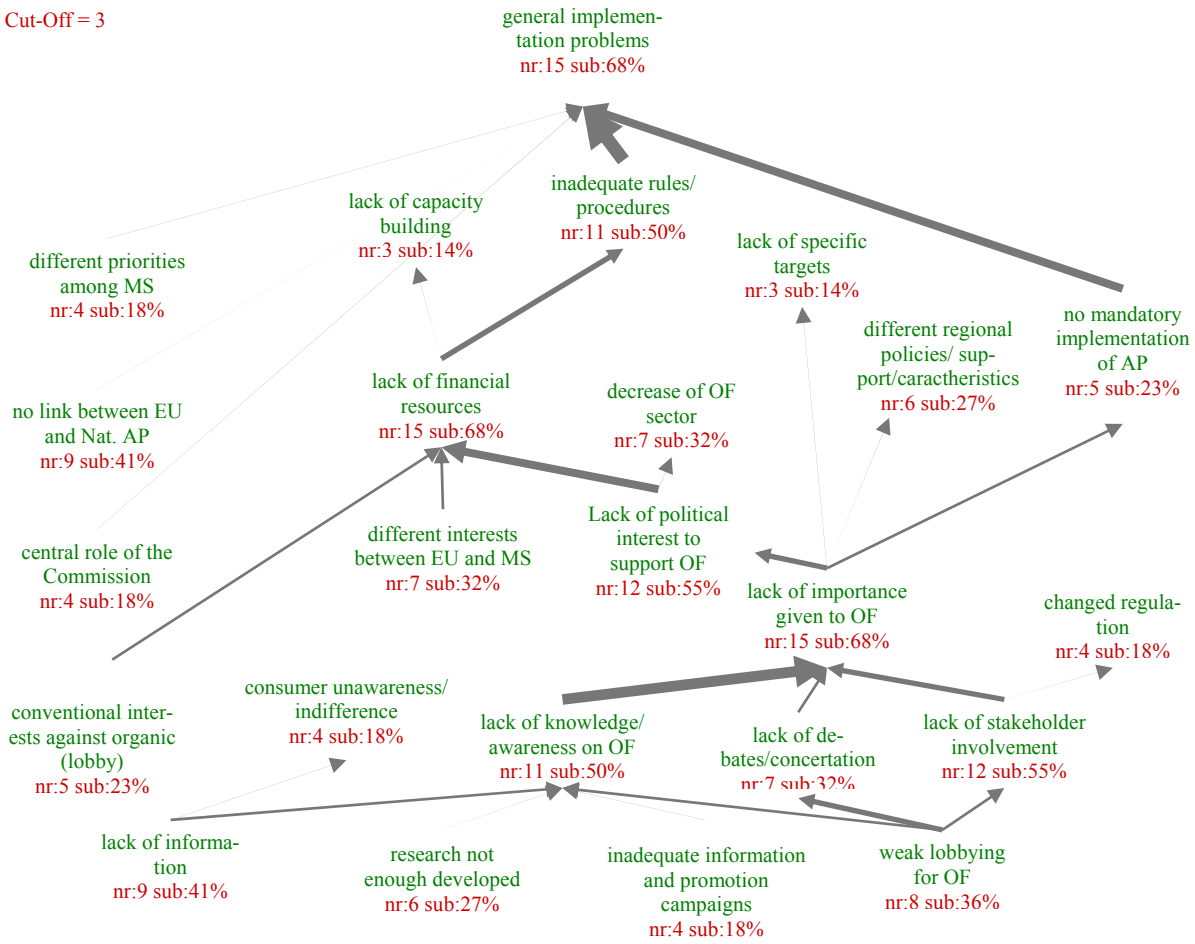
In order to provide an early assessment of potential risks and problems associated with the implementation system of the EU OAP, we used an adapted version of (process) Failure Mode & Effect Analysis (FMEA) (McAndrew & Sullivan, 1993) combining the knowledge of a Core Team made of researchers from partner institutions (AND, CH, CZ, DE, DK, IT, NL, SI, UK) with external expertise of a Support Team (Advisory Committee, EU Commission).

The group of experts used a special laddering questionnaire to generate a list of potential problems of the EU Organic Action Plan implementation. Once the list has been generated, experts defined the logical cause-effect structure of the problem, by identifying all possible causes of each problem. This has be done using the Means-End Chain model.

A cognitive map has been created, in order to visually identify links between causes and effects (Figure 2).

The cut-off levels (3) corresponds to the minimum number of three people which mention a statement/concept, and similar percentages of links. The map should be read from the bottom to the top, and consider the causes/problems of the EU OAP implementation and the possible effects. Arrows thickness indicate the strength of the linkages, that is how strongly partners stressed that connection during the interview. Number (nr.) of experts mentioning that linkage and percentage of subjects (sub.) is under the code.

Figure 2: The Cognitive Map



The map is a set of linkages between causes and effects. The following discussion uses the main link between cause and effect present in the map (

Table 2) to analyse the logical cause-effect structure (the failure mode).
In order to establish a bi-univocal cause-effect failure mode , we extracted all mentioned causes from the map and finding the highest and strongest link to an effect. The analysis proceeds from bottom to top. This was necessary in order to avoid repetition in the list of the effects since some linkages have common paths crossing at same effects nodes.

It is clear that the failure mode of the problems of the EU Organic Action Plan implementation is just a simplification of the richness of the information collected in the previous stage of the analysis: in order to - at least partially - keep such richness of information, we will give detailed explanations of linkages between each cause and effect.

Table 2: The failure mode

Cause	Effect
Conventional interests against organic lobby	Lack of financial resources
Lack of information	Lack of political interest to support OF
Research not enough developed	Lack of importance given to OF
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF
Weak lobbying for OF	No mandatory implementation of AP
Lack of stakeholder involvement	Lack of capacity building
Different priorities among MS	General implementation problems
Different interests between EU and MS	Inadequate rules/procedures

Conventional interests against organic lobby → Lack of financial resources

Conventional interests against organic lobby means prevailing non-OF interests and too big influence of conventional agriculture and biotechnology lobby. In addition, people think that most units in DG AGRI deal more with other parts of agricultural sector that are in conflict with organic ideas. The effect is a lack of financial resources in OF which generates inadequate rules/procedure: the time schedule is too strict and tight, many action are non-concrete, the Commission financial procedures is too complicated and the regulation is unclear. The final effect are general implementation problems. In other words, parts of EU OAP can not be implemented, the time for implementation is too long, the EU OAP was never meant by Commission to be implemented and the EU logo campaigns has a bad implementation.

Lack of information → Lack of political interest to support OF

Not enough information on the needs and impacts, not enough information to stakeholders, about benefits for public and conventional products methods generate a lack of knowledge/awareness on OF which produces a lack of importance given to OF. As consequence the political interests to support OF is low: this means lack of political will, no full support of OF in the commission and member states. In addition, the core and support team think that the finance ministers do not prioritize OF and OF is not considered important enough to allocate sufficient budge. This creates a lack of financial resources devolved to organic farming. Again the final effect are the development of inadequate rules/procedure and general implementation problems.

Research not enough developed → Lack of importance given to OF

It seems that an important problem for the implementation of the EU OAP is that research in OF is not enough developed which generate a lack of knowledge/awareness on OF. As a consequence the importance given to OF is low: EU and member states do not give priority to organic farming, it is still considered a marginal sector and researchers do not perceive OF as a legitimated scientific field. In other words OF development has not an high importance at the political level and, therefore, there is no interest to support the sector. In this context the OF sector is decreasing.

Inadequate information and promotion campaigns → Lack of knowledge/awareness on OF

Inadequate promotion activities and lack of information campaign to know what organic products are generate a lack of knowledge and awareness on OF. This means lack of knowledge about organic values and on basic principles of nature and life and humanity, in general the understanding of OF effects is low. There is a low political awareness on OF potential. The conse-

quence, as described before, is a lack of importance of OF, a lack of political interest in the sector with the result of the decreasing of OF setor.

Weak lobbying for OF ⟶ No mandatory implementation of AP

The insufficient lobby work in the OF sector, the lack of leadership and the isolation of "organic people" in their specific institutions create an OF sector which is not considered important at all. As a consequence, OAP seems to be a formal action of the EU Commission, just a set of recommendations. Member states are ignoring the recommendation to use a range of possible Rural Development Plans (RDP) instruments to support OF. Although the guidelines for rural development plan clearly indicates OF support, the statement is not mandatory and it is confined to axis II measures (Market and promotion measures are in axis I).

Lack of stakeholder involvement ⟶ Lack of capacity building

The core and support team indicate, as a problem of the EU OAP implementation, the lack of stakeholder involvement and their influence in the decision making process: there is no interest among key market stakeholders in the organic sector. Again, this generate a lack of political interest in OF and a lack of financial resources advocated to the sector. The effect is a lack of capacity building: too poor competences in human resource management.

Different priorities among MS ⟶ General implementation problems

The different perception of OF in the Member States and the great cultural differences among them generate, clearly, general implementation problems.

Different interests between EU and MS ⟶ Inadequate rules/procedures

The perception on what OF could contribute to EU agricultural policy goals, vary within EU and Member States: they have different priorities. This generates lack of financial resources with the consequence of having inadequate rules and procedures.

3.2 Second step: Evaluation of the EU OAP and the ORGAP evaluation toolbox

The main objective of the second step is the evaluation of the quality of the ORGAPET.

The Risk Priority Number (RPN) methodology is a technique for analyzing the risk associated with potential problems identified during a Failure Mode and Effects Analysis (FMEA)

A quick inspection reveals that no single failure mode is particularly risky, since the maximum mean value is 210 while theoretical maximum is 1000.

Table 3. shows the calculated Risk Priority Number (RPN) and relative statistics.

In what follows, the attention will be focused on the trimmed mean, which is a statistical measure of central tendency. A trimmed mean is calculated by discarding the lowest and the highest scores and then computing the mean of the remaining scores. This helps to alleviate the distortion caused by extreme values from which the ordinary arithmetic mean suffers. The trimmed mean is a useful estimator because it is less sensitive to outliers than the mean, in this regard it is referred to as a robust estimator.

The standard deviation is the most common measure of statistical dispersion, measuring how widely spread the values in a data set are. In the specific case the attention is focused on the correct standard deviation which is calculated for the trimmed mean. If many data points are close

to the mean, then the standard deviation is small; if many data points are far from the mean, then the standard deviation is large. If all the data values are equal, then the standard deviation is zero.

A quick inspection reveals that no single failure mode is particularly risky, since the maximum mean value is 210 while theoretical maximum is 1000.

Table 3: Risk Priority Number and statistics

Characteristics of failure		Rating					
Cause	**Effects**	**MEAN**	**STANDARD DEVIATION**	**TRIMMED MEAN**	**Corr. STD. Deviation**	**MAX**	**MIN**
Lack of stakeholder involvement	Lack of capacity building	**231,6**	**206,3**	**210,0**	**137,5**	**1000**	**5**
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	**173,3**	**115,1**	**162,8**	**84,1**	**567**	**42**
Lack of information	Lack of political interest to support OF	**162,3**	**100,4**	**159,4**	**86,9**	**392**	**3**
Weak lobbying for OF	No mandatory implementation of AP	**155,8**	**109,1**	**146,6**	**84,6**	**504**	**36**
Research not enough developed	Lack of importance given to OF	**145,9**	**125,0**	**133,1**	**90,1**	**576**	**24**
Conventional interests against organic lobby	Lack of financial resources	**149,1**	**140,6**	**132,2**	**81,5**	**720**	**3**
Different priorities among MS	General implementation problems	**146,2**	**129,1**	**130,8**	**84,4**	**630**	**32**
Different interests between EU and MS	Inadequate rules/procedures	**136,2**	**98,2**	**130,1**	**82,6**	**400**	**18**

The Risk Priority Number mean referred to the logical cause-effect structure (the failure mode) of the problems of the EU Organic Action Plan implementation shows that the failure mode "lack of stakeholder involvement" ⟶ "lack of capacity building" seems to be the most important problem areas for which the indicators provided in the ORGAPET toolbox may perform insufficiently. The probability of occurrence of the failure seems moderately high, and the seriousness of it shows that the organic sector is severely affected but still in operation: the profitability of organic business could be significantly reduced.

Comparing the trimmed mean with the correct standard deviation, there is a general agreement among experts for all failure mode, but in this case the agreement is not as strong as in other cases. The same situation can be found for the following failure

mode: Research not enough developed ⟶ Lack of importance given to OF and Different priorities among MS ⟶ General implementation problems.

On the other side, the failure mode "different interests between EU and MS"⟶ "Inadequate rules/procedure" has the lowest RPN mean which indicates that only few business are affected with moderate effects on organic land area, the probability of occurrence is moderately high and the probability of detecting the failure mode by ORGAPET toolbox is moderately high.

In general, the RPN is not very high for all failure mode, which indicates that the indicators provided in the toolbox do perform sufficiently for the problem areas identified by the experts, even if – in some instances – the respondents criticized the lack of focus of the indicators.

Interesting are the minimum values of RPN reported for the following failure mode:

1. "Conventional interests against organic lobby" → " Lack of financial resources"
2. "Lack of information" → " Lack of political interest to support OF"

For some experts the severity of these two logical cause-effect structure is none, their probability of occurrence is low and the probability of their detection by the toolbox is almost certain.

Once the failure-modes have been defined, the core and support team have evaluated, for each cause and effect, the list of main indicators from the ORGAP evaluation toolbox (ORGAPET). The scope of this task was to verify if the main indicators of the ORGAP toolbox were able to cope with the logical cause-effect structure of the problems concerning the implementation of organic agriculture policy.

The approach to the classification of indicators used in this work is an adaptation of that used in the MEANS framework.

This part is considered the most important one since it is the core of the evaluation of the ORGAP evaluation toolbox. The scope of this task is to give a preliminary testing of the ORGAP toolbox and its ability to cope with the logical cause-effect structure of the problems concerning the implementation of organic agriculture policy.

Each indicator is part of a indicator category defined to classify the list of indicators developed by the University of Wales (for the list of appropriate indicators used by experts please see Appendix 2):

- **Programme design process indicators** provide information on the nature of the design process including the degree and quality of stakeholder involvement and the relevance (nearness) of the process to the target beneficiaries.
- **Resource and implementation process indicators** provide information on the regulatory, financial and human means for programme implementation, for example the budgets or staff time allocated to the implementation of the programme, as well as the nature of stakeholder involvement.
- **Output indicators** represent the direct effect of the programme on the immediate beneficiaries, for example the number of hectares supported or the number of farmers participating in a scheme.
- **Result indicators** represent the immediate advantage for the direct beneficiaries of the programme but are indirectly a result of programme activity, for example the increase in farm incomes or market share.
- **Impact indicators** represent the effects of the changes made by beneficiaries as a result of the programme on wider public policy goals, for example environmental protection or animal welfare goals.

In what follows we present the results of a simulation on the use of the ORGAPET toolbox to face problems regarding the implementation of organic agriculture policy, involving a group of experts.

Table 4: The most named Cause indicators

Cause	Effects	Detection (mean)	CAUSE indicator
Conventional interests against organic lobby	Lack of financial resources	3,5	**A3** Nature of stakeholders involved in preparing and making policy decision (identify range of stakeholder types, public/private, area of interest)
Different interests between EU and MS	Inadequate rules/procedures	3,8	**A4** Scope of final plan/policy decision (number and integration of objectives/action points
Research not enough developed	Lack of importance given to OF	3,9	**A1** Prior policy initiatives (extent/type – e.g. standards, financial support)
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	3,9	**B1** Budget allocated to individual action points (or action plan in total)
Different priorities among MS	General implementation problems	3,9	**A4** Scope of final plan/policy decision (number and integration of objectives/action points
Weak lobbying for OF	No mandatory implementation of AP	4,3	**A1** Prior policy initiatives (extent/type – e.g. standards, financial support) **A3** Nature of stakeholders involved in preparing and making policy decision (identify range of stakeholder types, public/private, area of interest)
Lack of information	Lack of political interest to support OF	4,5	**A2** Occasion/problem leading to policy initiative (agenda for policy process)
Lack of stakeholder involvement	Lack of capacity building	4,8	**A3** Nature of stakeholders involved in preparing and making policy decision (identify range of stakeholder types, public/private, area of interest)

In Table 4, the most named appropriate Indicators identified by the experts for each cause have been showed.

In general, the detection mean values range from 3,5 (High probability of detection to moderately high chance of detection) to 4,8 (moderately high chance of detection to moderate chance of detection) which indicate that in general – for the selected failure-modes - the ORGAPET indicators may perform sufficiently.

The lowest detection mean is associated with the failure mode "conventional interests against organic lobby" ⟶ " lack of financial resources", which means that the probability of detecting the relative cause by the following indicator is quite high: "Nature of stakeholders involved in preparing and making policy decision (identify range of stakeholder types, public/private, area of interest)".

On the other side, the highest detection mean (4,8) is associated with the failure mode "lack of stakeholder involvement" ⟶ " lack of capacity building", which means that the probability of detecting the respective cause by the ORGAPET indicator "Nature of stakeholders involved in preparing and making policy decision (identify range of stakeholder types, public/private, area of interest)" is moderate, even if it is the most appropriate one.

The most named cause indicators belong to the group "programme design process indicators" which provide information on the nature of the design process including the degree and quality of stakeholder involvement and the relevance (nearness) of the process to the target beneficiaries.

It is interesting to note that the following failure mode:

Lack of information ⟶ Lack of political interest to support OF

Inadequate information and promotion campaigns ⟶ Lack of knowledge/awareness on OF

are also associated, in a high percentage, with a result indicator related to the market, concerning "organic market size (retail sales value and/or volume), in total and as share overall food market". In addition, the probability of detecting the respective cause by the previous indicator is, respectively, moderate to moderately high and moderately high to high.

Table 5: The most named Effect indicators

Cause	Effects	Detection (mean)	CAUSE indicator
Conventional interests against organic lobby	Lack of financial resources	3,5	**B1** Budget allocated to individual action points (or action plan in total) **A4** Scope of final plan/policy decision (number and integration of objectives/action points
Different interests between EU and MS	Inadequate rules/procedures	3,8	**DI1** Number of certified organic and in-conversion holdings (NB number of policy-supported holdings is an output indicator)
Research not enough developed	Lack of importance given to OF	3,9	**C1** Number (or proportion) of action points achieved/completed (NB this does not say that they were effective in achieving their aims – indicators for this are considered under 'results' and 'impacts')
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	3,9	**B1** Budget allocated to individual action points (or action plan in total)
Different priorities among MS	General implementation problems	3,9	**DII5** Organic market size (retail sales value and/or volume), in total and as share overall food market
Weak lobbying for OF	No mandatory implementation of AP	4,3	**C1** Number (or proportion) of action points achieved/completed (NB this does not say that they were effective in achieving their aims – indicators for this are considered under 'results' and 'impacts')
Lack of information	Lack of political interest to support OF	4,5	**B1** Budget allocated to individual action points (or action plan in total)
Lack of stakeholder involvement	Lack of capacity building	4,8	**B2** Existence, composition and authority and frequency of meetings of a board/advisory group with stakeholder representation (including nature of stakeholder involvement, e.g. participatory or advisory with respect to development, prioritisation, implementation and evaluation aspects)

In Table 5, the most named appropriate indicator identified by the experts for each effect have been showed.

Again, the lowest detection mean is associated with the failure mode "Conventional interests against organic lobby" ⟶ "Lack of financial resources": this indicates that the probability of detecting the respective effect by the indicator "Budget allocated to individual action points (or action plan in total)" is moderately to moderately high.

Once more, the highest detection mean is associated with the failure mode "Lack of stakeholder involvement" ⟶ "Lack of capacity building" which means that the probability of detecting the relative effect by the indicator "Existence, composition and authority and frequency of meetings of a board/advisory group with stakeholder representation (including nature of stakeholder involvement, e.g. participatory or advisory with respect to development, prioritisation, implementation and evaluation aspects)" is moderately high to high even if it is the most appropriate one.

The most named indicators belong to the group "Resources and implementation process indicators", but, in comparison with the cause indicators a more various range of indicators have been chosen by the experts.

Interesting is to highlight the fact that the most “voted” group of effect indicators belong to the category “Result indicators” with an homogeneous distribution among indicators related to the production group and the market one. Result indicators provide information about the immediate and direct effects of a programme. These being the effect that this activity has on programme beneficiaries. These indicators would in this case measure the effects of an action plan on the organic sector and sector-level objectives.

The approach to the classification of indicators used in this work is an adaptation of that used in the MEANS framework. The main difference is the inclusion of process indicators to assess the role of stakeholders in programme design and implementation (Lampkin N. Jeffreys I. And Tuson J., 2006).

It is quite clear that the creation, management and transfer of knowledge seems, for almost all experts, to be crucial for the implementation of Organic Action Plan and in general for policy development. There is no single 'best way' of facilitating policy innovation and learning; however, a broad political debate among stakeholders may contribute to policy development capacities. This debate should help to facilitate the sharing of information, the spatial integration of policy and planning and the creation of multi-stakeholder groups. Finally, it can contribute towards improving the capacities for policy development (Shannon, 2003).

Some criticisms arose among experts.

For some experts the evaluation of a combination of a cause and an effect was difficult, and they complain the fact that some causes could have more than one effect and these were not indicated. It is clear that the combination of single cause and effect is a simplification of the logical cause-effect structure showed earlier. In addition the connection between cause and effect is the result of the laddering exercise which is obtained from the answers of the experts.

Experts complain the way the exercise has been developed. First of all, it was difficult to mark a single detection indicator, a set of indicators would be helpful and necessary. In addition, some indicators were not perceived as very precise with regard to whether they will contain the information needed for detection or not. Clearly it is unrealistic to have all the information foreseen by the indicators, but the aim of the exercise was to evaluate if the developed list of indicators was of a high-quality.

Based on results and previous discussion, the list of indicators developed by the University of Wales appears as a good base for the detection of many problems regarding implementation of organic agriculture policy. This because the probability of detecting failure mode by ORGAPET toolbox is moderately high which means that the list of main indicators are able to face with the logical cause-effect structure of the problems.

Clearly, indicators should probably be improved in order to explain in a more precise way what are the information included. This because in some cases the indicators seem to be unrealistic or just not available.

3.3 Assessment of the quality of the system of indicators

The approach taken was to evaluate the quality of, and where possible quantify, the ORGAPET generic indicators (Section C3), in a spreadsheet grid where the originally proposed generic indicators were entered as columns, and the individual action points of the EU organic action plan

were identified in rows, together with any available information on progress, likely impacts (impact statements), resources allocated and uptake achieved for the individual actions. Once the initial structuring of available information was completed by P2 (UWA), an assessment of the quality of the indicators was conducted by P4 (UPM), with each indicator scored for its overall quality characteristics with respect to the action plan as a whole. The scoring system used was 0-3 representing no, low, medium or high score respectively. Some scores report decimal figures since the assessment was done by more than one evaluator.

The results of this analysis were presented to the ORGAP partners meeting and the Advisory Committee meeting in Brussels in January 2008, which provided feedback both on the scoring system used to evaluate the indicator quality, as well as on recommended changes to the generic list of indicators. The original generic list of indicators developed in WP2, and the final list of indicators in ORGAPET, are presented in the Annex 1 and Annex 2. The changes reflect not only the testing in the different parts of WP4, but also the feedback from the national testing processes that took place in WP3.

While the process involved four distinct stages: analysis, quality assessment, consultation and revision, the results are presented here in an integrated approach focus on each main group of indicators in turn.

3.3.1 A: Programme process/design indicators

The programme development process and design indicators are mainly qualitative and based on the checklists in ORGAPET sections A5 and B1-B3. There are three main elements to this:

1. Documentation of the action plan contents, prior policy initiatives and other contextual information relating to the action plan
2. Assessment of the type of stakeholders involved in the development process and the nature of their contribution to the plan
3. Assessment of the logic (including impact statements), synergies and implementation failure risks of the plan

These issues have not been evaluated in terms of indicator quality in part because documentation of action plan content and context would be expected to be standard practice, and because assessment of logic, coherence etc. is covered elsewhere in this report. The involvement of stakeholders is another issue – this represents important contextual information which if not recorded at the time may not be possible to pull together later without direct access to the individuals originally involved.

3.3.2 B: Resource/implementation indicators

Resource and implementation indicators provide information on the ability of those responsible fort the action plan to deliver it, or at least arrange for it to be delivered by others, critical issues include financial and staff resources, as well as the institutional and other structures to ensure effective implementation and stakeholder integration (Table 6)

At the outset of the EU action plan, no financial resources or staff time were specifically allocated to the implementation of the plan. Actions were either to be resourced as part of other programmes (e.g. research or rural development), or implemented as part of the ongoing work of the organic farming unit in the Commission (reform of the EU regulation). As implementation de-

veloped, some resources were allocated to the implementation of specific action points, e.g. the promotional campaign (AP1).

Table 6 Assessment of the quality of resource/implementation indicators

Indicator	2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Key ndicator
1 Budget	None	↑	3	2.4	2.2	3	3	3	1	✓
2 Steering groups	(✓)	↑	2	3	3	1	3	3	1	✓
a Staffing	5-6?	→	2	2	3	2	3	3	1	✓
Qualitative indicators not evaluated (but can be documented):										
b Characterisation of stakeholder involvement										✓
c Institutional changes										✓
d Legal basis for action plan										✓

All these indicators appear quite relevant, and are all quite reliable, since they are well accepted by stakeholders. The availability is in general high, so they are suggested as key indicators.

3.3.3 C: Output indicators

Output indicators measure the direct impact of the programme on target beneficiaries, usually reflected in the uptake rates of, and actual expenditure on, specific policy measures. In the context of the EUOAP, by end 2007 19% of the 21 action points had been completed and a further 67% were in progress, with the balance not yet started. Expenditure data was not publicly available and the ratio of actual expenditure to budget could not be calculated as there was no initial budget. However, for some action points (e.g. AP1 Promotion, AP6 rural development and AP7 research) some data on uptake and expenditure were available. While in most cases the trend was positive, for some, e.g. research, the number of projects funded and the total expenditure had declined slightly compared with the period before the action plan was launched (this may be remedied under Framework 7 which started after the publication of the action plan) (

Table 7 and D: RESULT indicators – I. Production

Result indicators show the overall trends in development of the sector, not just the immediate beneficiaries. However, the relevant indicators (e.g. certified land area) may be an indirect effect of a policy measure, and there may be other exogenous factors (exchange rates, market demand) that have influenced the outcome, so care is needed with interpretation.

Data on the number of certified holdings, the certified land area and the numbers of new entrants and withdrawals is supplied by member states to the EU Commission and collated/published by Eurostat, so is relatively easy to obtain, but there are some quality issues as reviewed by the EIS-fOM project (1Hwww.eisfom.org). An example of the available data is shown in 384HAnnex 3 with baseline values shown in the table below.(

Table 9 and **386HThe first three indicators are suggested as key indicators since they perform well for all quality criteria and they are relatively relevant. The last ones are of various relevance, but have major problems of data availability and freshness, as well as in terms of interpretation of the impacts.**

Figure 3).

Estimates of total output for individual crop and livestock enterprises are also given by Eurostat, but these data are less complete on an EU wide basis. There is currently no data on business longevity available.

Table 8).

Table 7: Assessment of the quality of output indicators

Indicator	2007 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Key indicator
1a Completed (% of APs)	19%	↑	3	3	3	3	3	3	1	✓
1b In progress (% of APs)	67%	↑								
2a Expenditure (M€)	?*	↑	3	3	3	3	3	3	1	✓
2b Exp/budget (ratio)	?*	↑	3	3	3	3	3	3	1	✓
*some data for individual actions points, e.g. AP1 Promotion (2006-7: M€3 for resource development); AP7 Research (FW6 2004-2007: 25M€ ↓ cf. FW5)										
3 Uptake (projects/ businesses)	?*	↑	1	2.4	2.4	1.8	3	2.8	1	(✓)
*some data for individual actions points, e.g. AP7 Research (2004-2007: 19 projects ↓)										
A Expenditure per project	?	?	1	3	3	2	3	3	1	(✓)

*some data for individual actions points, e.g. AP7 Research (2004-2007: 1.3 M€ ↑ NB QLIF)

Again, this group of proposed indicators seem to perform well according to all criteria; they are suggested as key indicators, though the last 2 appears to be less relevant.

3.3.4 D: RESULT indicators – I. Production

Result indicators show the overall trends in development of the sector, not just the immediate beneficiaries. However, the relevant indicators (e.g. certified land area) may be an indirect effect of a policy measure, and there may be other exogenous factors (exchange rates, market demand) that have influenced the outcome, so care is needed with interpretation.

Data on the number of certified holdings, the certified land area and the numbers of new entrants and withdrawals is supplied by member states to the EU Commission and collated/published by Eurostat, so is relatively easy to obtain, but there are some quality issues as reviewed by the EIS-fOM project (www.eisfom.org). An example of the available data is shown in Annex 3 with baseline values shown in the table below.(

Table 9 and **The first three indicators are suggested as key indicators since they perform well for all quality criteria and they are relatively relevant. The last ones are of various relevance, but have major problems of data availability and freshness, as well as in terms of interpretation of the impacts.**

Figure 3).

Estimates of total output for individual crop and livestock enterprises are also given by Eurostat, but these data are less complete on an EU wide basis. There is currently no data on business longevity available.

Table 8: AP7 Research funding example – analysis of project start-ups by year and by framework programme

Year	Number	Cost	EU Funding	Per project
1990	1	no data	no data	no data
1991	3	no data	no data	no data
1992	1	no data	no data	no data
1993	4	4232711	3081000	770250
1994	2	3078738	1639469	819735
1995	3	675560	460000	153333
1996	0	0	0	0
1997	2	2810000	2394000	1197000
1998	4	4435008	2315777	578944
1999	3	2764363	1887566	629189
2000	3	4952569	3593879	1197960
2001	7	15758789	11093490	1584784
2002	4	3227285	2003924	500981
2003	9	13223756	10872846	1208094
2004	11	27578573	18384047	1671277
2005	5	3501050	4155373	831075
2006	2	2662946	2318742	1159371
2007	1	no data	no data	no data
FWP	**Projects**	**Cost**	**EU funding**	**per project**
1/2	5	no data	no data	no data
3	9	7987009	5180469	575608
4	9	10009371	6597343	733038
5	23	37162399	27564139	1198441
6	19	33742569	24858162	1308324
7	0	0	0	0
Total	65	88901348	64200113	987694

Table 9: Assessment of the quality of results indicators - Production

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Key indicator
1 Certified holdings (kn)	143	↑	2	3	3	1	3	3	3	✓
2 Cert. land area (Mha)	5.85	↑	2	3	3	1	3	3	3	✓
b new entrants/ withdrawals (kn)	14 17	↑ ↓	2	3	3	1	3	3	3	✓
3 Organic farm incomes (FNVA/AWU) as % of conv.	110 (2001)	↑	0.9	2	1	1	3	3	3	
d Producer prices	?		1	1	1	1	3	3	3	
e Output/productivity	?		0.8	1	1	1	3	3	3	
h Business longevity	?		2	0	0	1	3	1	1	

Data on organic farm incomes is also relative easy to obtain across the EU through FADN, although there have been no recent published analyses of the FADN data. The example shown here is derived from the IRENA organic farm incomes indicator (5.2; ww.orgap.org/orgapet/annexes/annex_c3-2), and shows that overall, organic farm net value added per annual work unit was comparable to that for conventional farms in 2001.

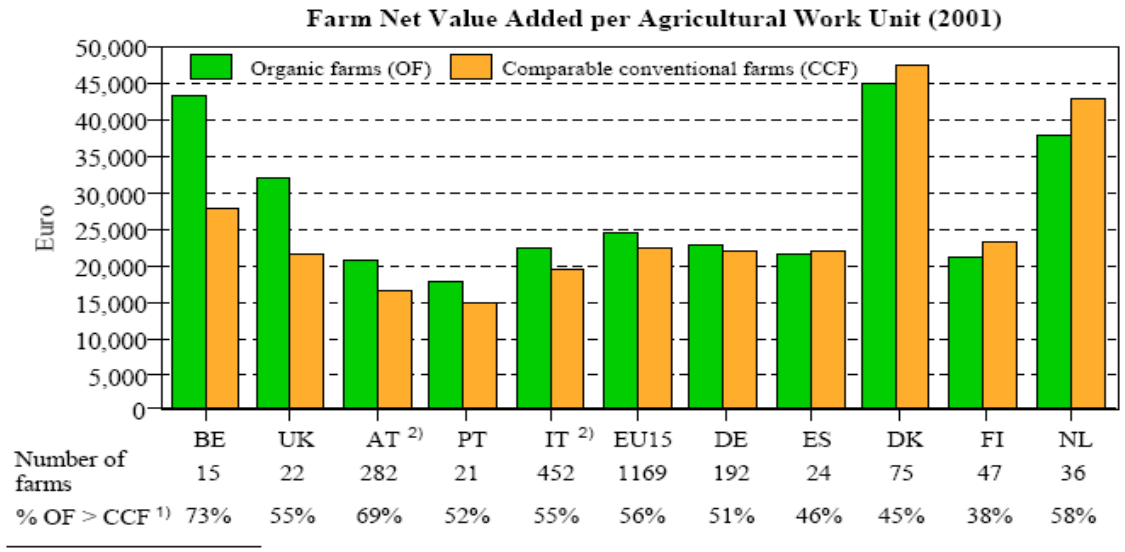
Organic producer prices are more difficult to assess as there is no systematic recording of them at the EU level. The problems of obtaining and interpreting this data when used as an indicator are set out in the IRENA indicator 5.1 (www.orgap.org/orgapet/annexes/annex_c3-3) and in the EISfOM project reports (www.eisfom.org).

With respect to individual action points, it might be possible to include separate indicators, for example a scoring system to reflect improvements in statistical data availability (Action point 3), which would also improve the availability of data for other indicators.

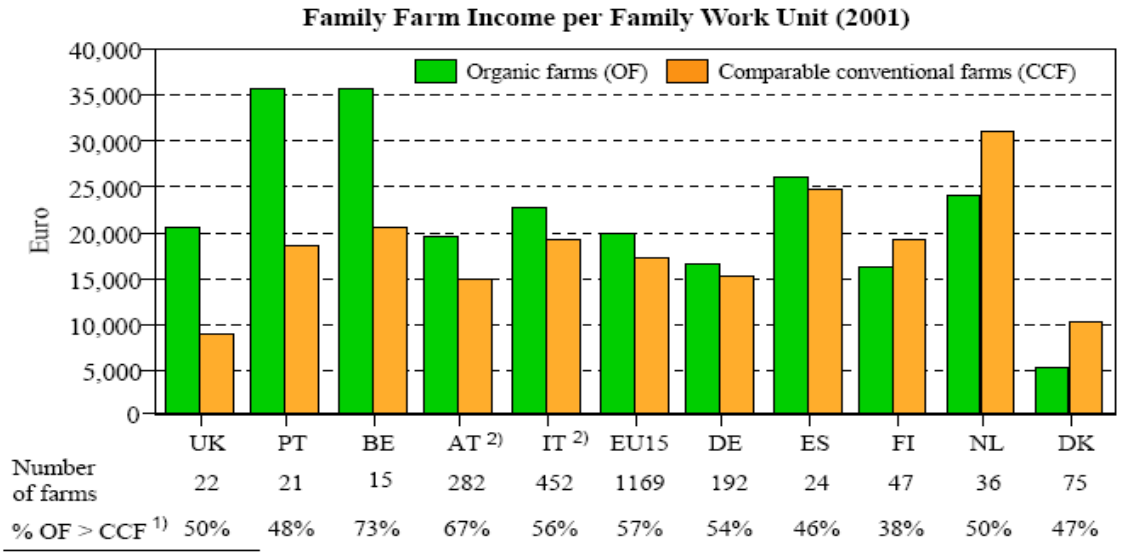
The number of producers/area obtaining RDP support (EU27 2003 2.9 Mha (50% of certified area) and the support levels in total and per producer/unit (EU27 2003 500 M€, av. 165 €/ha) could also be seen as result indicators for the action points 5 (support website) and 6 (encouragement of member states to utilize RDP fully to support organic farming).

The first three indicators are suggested as key indicators since they perform well for all quality criteria and they are relatively relevant. The last ones are of various relevance, but have major problems of data availability and freshness, as well as in terms of interpretation of the impacts.

Figure 3: Incomes and returns to labour



1) Share of organic farms in the sample with a higher FNVA/AWU than the respective comparable conventional farm group.
2) Difference in the sample means of FNVA/AWU statistically significant (p<0.05).
Source: Offermann (2004) based on INLB-EU-GB AGRI/G.3.



1) Share of organic farms in the sample with a higher FFI/FWU than the respective comparable conventional farm group.
2) Difference in the sample means of FFI/FWU statistically significant (p<0.05).
Source: Offermann (2004) based on INLB-EU-GB AGRI/G.3.

Source: Offermann (FAL)/IRENA

3.3.5 D: RESULT indicators – II. Market

The number of certified market operators (processors, importers) is also available from Eurostat (see Annex 3). The limitation of this data set is that it is not differentiated by activity or product type.

Market size and expenditure per inhabitant is more difficult to assess. The problems of estimating market size have been discussed in the OMIaRD (www.irs.aber.ac.uk./omiard) and EISfOM projects (www.eisfom.org) as well as in the IRENA indicator 5.1 (www.orgap.org/orgapet/annexes/annex_c3-3). The values shown in the Table 10 below and the Annex 3 are those col-

lated by Padel and Willer as part of an annual assessment of the European market for organic food.

Table 10: Assessment of the quality of results indicators - Market

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Key indicator
1 Certified operators (kn)	14	↑	1.2	2.9	1.9	1.1	3	3	3	✓
2 Market size (G€ sales)	12	↑	1.2	1	1.9	1.1	3	3	3	✓
3 Exp. per inhabitant (€)	30	↑	0.6	1	2.9	0.8	3	3	3	✓
a differentiated by product			(2)	0	0	(2)	3	3	3	AP4
% committed consumers	(ms)		(3)	1	1.9	(3)	3	3	3	AP1
consumer recognition	?		(3)	1	1	(3)	3	3	3	AP1
% marketed as organic	?		1	0	0	0.6	3	3	3	

Some indicators would have high relevance for specific action points. For example, expenditure differentiated by product would be relevant to action point 4 (fruit and vegetable support). While consumer recognition, understanding and commitment would be important for assessing action point 1 (the promotion campaign). However, there is no source of data for consumer opinions – a special survey would need to be commissioned, possibly as part of the Eurobarometer series).

As with the production level results, a scoring system to reflect improvements in statistical data availability (Action point 3) would be desirable, which would also improve the availability of data for other indicators. The number of business/projects obtaining RDP support and the support levels in total and per business/project could also be seen as result indicators for the action points 5 (support website) and 6 (encouragement of member states to utilize RDP fully to support organic farming). However, unlike organic farming support which is separately recorded, the support for marketing activities under the RDP tends not to show support for organic activities separately.:

For action points AP19-21 (trade/equivalency), some specific measures to reflect the share of organic products marketed from outside EU (or self-sufficiency), the share of developing countries in organic trade and/or the share of organic products marketed from EU to countries subject to equivalency agreements would be relevant. These data are not currently available in published form.

3.3.6 D: RESULT indicators III. Regulation

Given the importance of reform of the regulation for organic food and farming in the action plan, there is a special need to consider indicators for this aspect. The primary source for this data is the annual surveillance report produced by the Commission (action point 18; www.orgap.org/orgapet/annexes/annex_c3-6). The data on infringement rates per operator from this report for 2005 is summarised in the

Table 12 below; other available data is shown in the Annex 3.

Table 11: Assessment of the quality of results indicators - Regulation

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Key indicator
1 Infringements per operator (by severity)	0.26 (2005)		1.8	2	2	1.3	3	3	2	✓
a differences in regulations	?		1.3	0	0	0.8	3	3	0	
b revisions to regulations	?		1.6	3	3	1	3	3	0	
c regulatory burden	?		1.6	1	3	1.1	3	3	0	
d consumer confidence/trust	?		1.6	1	1	1.3	3	3	2	

The indicators relating to differences in the regulations and number of revisions can be assessed by textual analysis of documents, and by reference to the organic standards database. However, interpretation may be problematic. For example, while those regulated may see frequent revisions as problematic, the regulators may see change as evidence that a regulation is vibrant and evolving to respond to changed circumstances.

The question of consumer confidence/trust in the new regulatory framework, like the response to the promotion campaign discussed above, requires a direct survey to be carried out as there is currently no data for this.

Again, specific action points may require specific indicators which are less relevant for the overall evaluation of the action plan. For example, action points AP13 (risk-based inspections); AP14 (analytical methods) and AP15 (parcel identification) might be assessed by: number of planned and un-announced inspections per business per year (AP13) and number and scale of fraud cases detected (all). Action point 12 (GMOs) might be measured by the number of GM contamination cases). Action points 16 (co-ordination) and 19-21 (trade/equivalency) might require measures of institutional and equivalency performance currently not defined.

Overall, only the first indicator is relatively relevant for all measures, and can be suggested as key-indicator, though its sensitivity may be not too high.

Table 12: Summary of Surveillance report statistics for 2005

	Operators	Infringements	Per operator
BE	1365	911	0.667
CZ	1268	32	0.025
DK	3846	71	0.018
DE	24442	17526	0.717
EE	1026	110	0.107
EL (GR)	16432	1129	0.069
ES	18552	1384	0.075
FR	16605	7425	0.447
IE	1136	12	0.011
IT	49867	6361	0.128
CY	364	21	0.058
LV	2883	42	0.015
LT	1854	28	0.015
LU	114	5	0.044
HU	1979	1332	0.673
MT	10	10	1.000
NL	2347	15	0.006
AT	21288	1130	0.053
PL	7281	2533	0.348
PT	1727	1555	0.900
SI	1755	2460	1.402
SK	222	122	0.550
FI	4798	1803	0.376
SE	3712	508	0.137
UK	5973	2452	0.411
NO	2856	184	0.064
EU15	172204	42287	0.246
EU27	190846	48977	0.257

3.3.7 D: RESULT indicators IV. Capacity

Institutional capacity to support the development of the organic sector is probably most difficult to assess. At its simplest, the number of organisations active, differentiated by their role (e.g. research, consultancy, training etc.) could be identified. There are currently no published results for this, but address databases do exist that could be interrogated to supply the data.

Numbers of organisations do not provide information on scale or quality of activity. Total resources (financial and/or staff) allocated to organic activities by the organisations identified would be a relevant measure, but this data is not currently collected and would need to be surveyed. However, this data still does not indicate the quality of the work carried out or the influence that it has on sector development or broader public policy goals. More sophisticated indicators would be needed to assess this (

Table 13).

Table 13: Assessment of the quality of results indicators - Capacity

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Overall	Key indicator
1 Number/size of organisations	?		1	3	3	0.1	3	3	0	1.9	✓
a differentiated by role	?										✓
AP5/6: number obtaining support and support levels per organisation											

3.3.8 E: Impact indicators

Impact indicators reflect the impact of the action plan on broader public policy goals. The most relevant areas identified are: environmental protection and resource sustainability; animal health and welfare; social issues; economic/rural development; and food security, safety, quality. In general terms the development of the organic sector is expected to contribute to the achievement of these goals, but the causal relationship between the individual action points, sector development and public policy goals is at best indirect and difficult to specify directly.

For many of the indicators suggested below, the indicators are as yet poorly defined (for example biodiversity indicators for organic farming). Current and planned research projects may help to achieve better definition of relevant indicators. Where indicators are well defined, data may only be available in the context of specific research projects and may not be available on a regular or pan-EU basis. There is therefore a need to include an assessment of research literature and include expert judgement approaches as part of the assessment of the impacts.

Due to the complexity of the issues regarding the measurement of these indicators, we cannot, at present, suggest any of them as key-indicator.

EI. Environment and resource sustainability

Table 14: Assessment of the quality of impacgt indicators – Environment and resource sustainability

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Overall	Key indicator
1 Biodiversity	?		0.8	0	0	2	2	1	1	1	?
2 Global warming potential	?		0.7	0	0	2	2	1	1	1	?
3 Nitrogen balance	?		0.7	1	1	1	2	3	3	1.7	?
4 Energy balance	?		0.7	0	0	2	2	1	1	1	?
5 Soil conservation	?		0.7	0	0	2	2	1	1	1	?
6 Water conservation	?		0.7	0	0	2	2	1	1	1	?

AP2 (database) extent to which standards directly address the above issues	?
AP5/6 Level of support obtained with specific focus on these indicators	?

EII. Animal health and welfare

Table 15: Assessment of the quality of impacgt indicators – Animal health and welfare

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Overall	Key indicator
1 Veterinary derogations	?		0.9	0	0	2	2	1	1	1	?
2 Longevity of breeding livestock	?		0.3	0	0	0	0	0	0	0	?
3 Uptake of higher welfare standards (holdings)	?		0.9	0	0	1	1	1	3	1	?
AP2 (database) extent to which standards directly address the above issues											?
AP5/6 Level of support obtained with specific focus on these indicators											?

EIII. Social

Table 16: Assessment of the quality of impacgt indicators – Social

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Overall	Key indicator
1 Occupational health	?		0.6	0	0	2	3	1	0	0.9	?
2 Age structure	fss?		0.5	0	0	0	3	3	3	1.4	?
3 Gender balance	fss?		0.5	0	0	0	3	3	3	1.4	?
4 Migrant labour	fss?		0.5	0	0	0	3	3	3	1.4	?
5 Communities/culture	?		0.6	0	0	2	3	1	0	0.9	?
AP1/8/10/19-21 Social justice/fair trade issues											?
AP2 (database) extent to which standards directly address the above issues											?
AP5/6 Level of support obtained with specific focus on these indicators											?

EIV. Economic/rural development

Table 17: Assessment of the quality of impacgt indicators – Economic/rural development

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Overall	Key indicator
1 Employment	Fss		0.6	2	1	3	3	3	3	1.8	?
2 Labour incomes	fadn		0.6	2	2	2	3	3	3	1.7	?
3 Diversity of income sources	?		0.6	0	0	1	3	1	0	0.8	?
AP1 Fair/ethical trade indicator (see also EIII)? Localness indicator?											?
AP2 (database) extent to which standards directly address the above issues											?
AP5/6 Level of support obtained with specific focus on these indicators											?

EV. Food security, safety and quality

Table 18: Assessment of the quality of impacgt indicators – Food security, safety and quality

Indicator	EU 27 2004 value	Trend	Relevance	Availability	Freshness	Sensitivity	Reliability	Comparability	Normativity	Overall	Key indicator
1 Output/ relative productivity	?		0.8	2	1	2	2	3	3	2	?
2 Food safety incidents	?		1	1	1	1	2	1	1	1.1	?
3 Pesticide residue levels	?		0.9	1	1	3	3	3	3	2.1	?
4 Food quality	?		0.9	1	1	3	3	3	1	1.8	?
5 Public health	?		0.7	0	0	1	2	1	1	0.8	?
6 Local food system sover-eignty/selfsufficiency	?		0.9	0	0	0	1	1	0	0.4	?
AP2 (database) extent to which standards directly address the above issues											?
AP5/6 Level of support obtained with specific focus on these indicators											?

3.3.9 Synthesis/interpretation issues

While the trends on many indicators since 2004 when the EU action plan was launched can be seen as positive (for example the growth in production area, numbers of holding and market size), it may not be possible to attribute these changes directly to the action plan. As the plan is still in the implementation phase, most of the effects may still be to come; in particular, the new

regulation and the promotion campaign will only be fully implemented in 2009, and the new logo not until 2010. It is therefore necessary to consider other causal factors, including wider economic/market conditions, as well as national policy initiatives that may complemented or counter the EU-level actions. If there is general growth in the sector, is there a difference in the rate of growth before and after the implementation of the action plan? What would have been the policy environment if the action plan had not been implemented (the counter-factual situation)? (Arguably, as the EU action plan is based on several existing policies such as research and rural development support, there may not be much difference, apart from the aspects directly related to reform of the regulation.)

4 Policy analysis of EU Action Plan implementation: some results

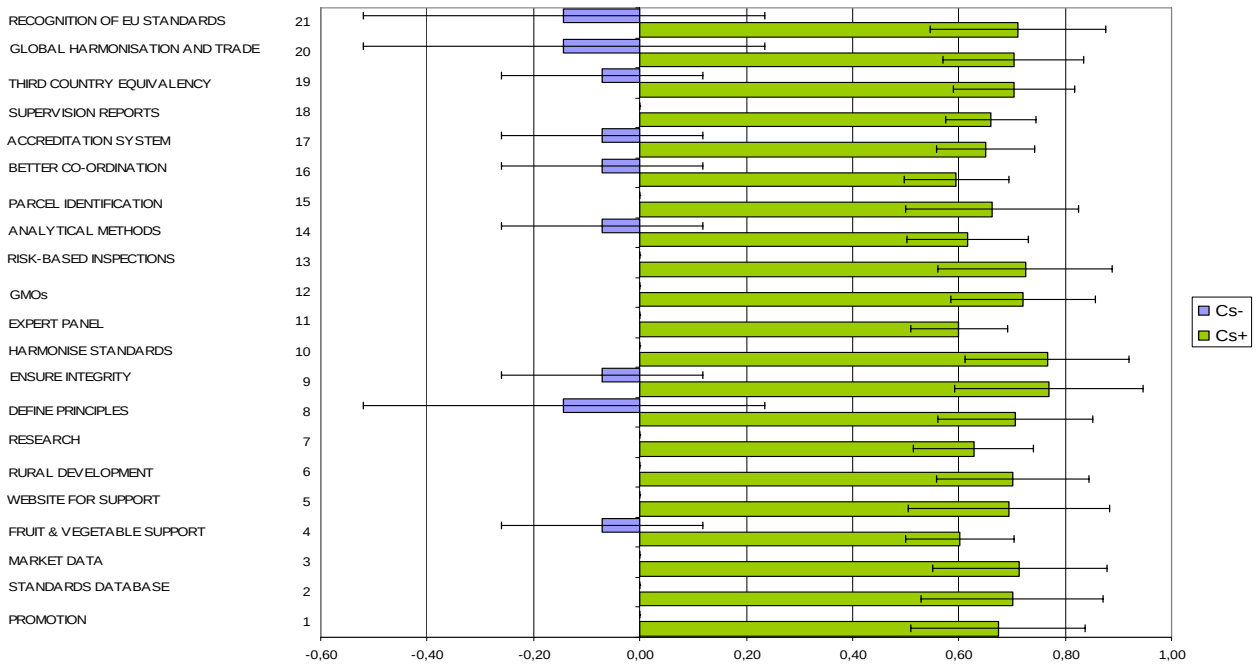
In terms of the concept of a hierarchy of objectives, the focus here is on intermediate level objectives which justify (determine the relevance of) the individual action points (operational objectives). This assumes that global objectives are captured by the dual public good and market vision set out in the EU organic food and farming action plan.

More specifically experts evaluated the overall level of synergy/conflict of the 21 actions of the EU OAP and between areas of action of EU OAP with the Single National Action Plans.

4.1 Synergy/conflict between EU OAP measures

Figure 4 illustrates the result of the policy and coherence analysis of the EU OAP. Synergies between actions largely prevail while the opinions on conflicting actions are not shared by members of the team, as is shown by the higher standard error bars.

Figure 4: Synergy/conflict between EU OAP actions



The analysis suggests that Actions 9 and 10 are essential for the success of the EU OAP, given their synergetic effects. They in addition enter into synergy with many other actions. Interesting is also Action 13 with an high coefficient of synergy and number of measures with which has interactions.

By contrast, Action 4 appears a stand-alone measure, since it enters into synergy with an average of 3 actions only. Action 16 is somewhat peculiar, since it has a fairly weak coefficient of synergy (0.59) but which enters into synergy with many other actions (68). In this case Action 16 has a weak potential for synergy although having numerous interactions, since these are individually weak. In addition Action 16 combines positive and negative effects of synergy, even if the conflict seems to be very weak.

Appendix 4 and Appendix 5 show calculation of synthetic coefficients of synergy and conflict and the coefficient of variation.

Interesting seems to be the analysis of single countries. Spain and Netherlands show the highest score of the coefficient of synergy (both have the highest mean of coefficient of synergy compared to the other countries). While in Germany the average score of coefficient of synergy is 0.54: which gave the idea that all action have a weak potential of synergy and not numerous interactions.

Italy, compared with the other countries, shows that action 12 has a highest potential of synergy, although having few interactions.

Slovenia and Netherlands have the highest coefficient of synergy for action 4, compared with the other countries, but, as showed in all countries, this action has few interactions. In addition, Slovenia shows an high potential for synergy concerning action 7 of the same group with numerous interactions.

Finally, Denmark, compared with the other countries, has the highest coefficient of synergy for action 16 with numerous interactions with other actions.

The coefficient of variation shows value 0><1: there is a substantially agreement on synergies among experts concerning each specific action.

Concerning the coefficient of conflict, the highest negative effect of synergy can be found for actions 8, 20 and 21. But this depends on the behaviour of Denmark which showed very high conflicts between actions 8 and 20 and action 21.

Here, since the coefficient of variation is higher than 1, it is clear that there is no agreement on conflicts among experts on each specific actions.

4.2 Synergy/conflict between areas of action of EU OAP with the national AP

Figure 5 and Figure 6 show, respectively, synergy and conflict between areas of action of EU OAP with the national AP

Synergies between EU actions and national AP prevail while in most cases no conflicts exist between EU and National Action Plan.

Specifically, synergy between areas of action of EU OAP with the national AP differ from country to country while just in few cases there is a conflict between EU OAP and national AP: in Denmark for action 8 and in Italy for action 4.

Figure 5: Synergy between areas of action of EU OAP with the national AP

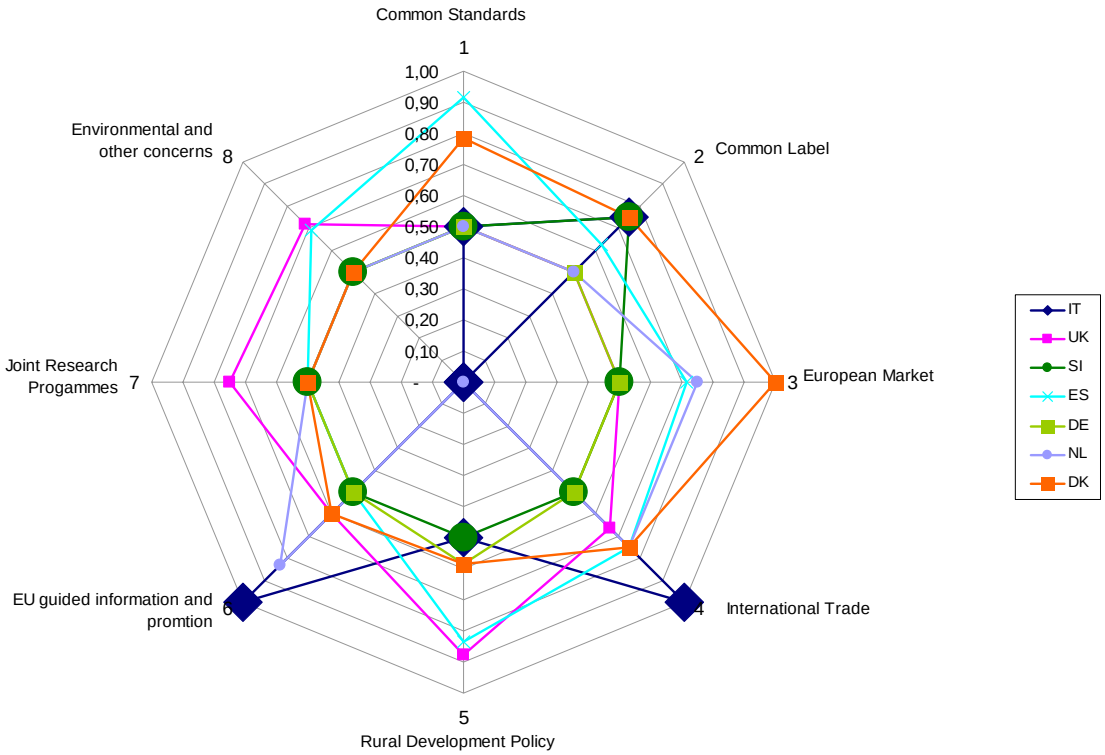
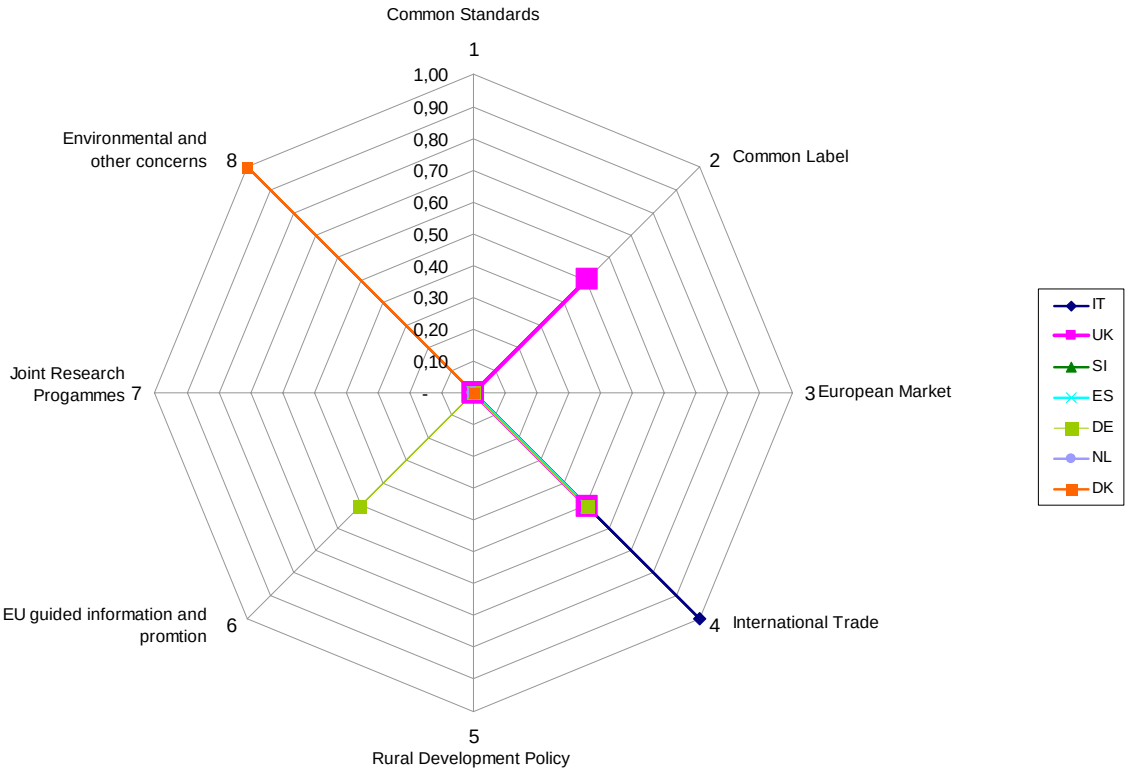


Figure 6: Conflict between areas of action of EU OAP with the national AP



Appendix 6 and Appendix 7 show calculation of synthetic coefficients of synergy and conflict between areas of action of EU OAP with the national AP.

It is clear that we can not analyse an average coefficient of positive and negative synergy since the analysis concerns the relation between areas of action of EU OAP and the specific national AP.

Group of EU OAP concerning common standards area seems to be essential for the success of the Spanish Action Plan, given its synergetic effect. In the other countries this group has a weak potential for synergy with the EU OAP. Spain shows quite high coefficient of synergy and quite numerous interactions between areas of action of EU OAP and national AP.

Measures organized under area "Common label" have a high coefficient of synergy (0.75) in Slovenia but enter into synergy with few other measures (2). More interesting seems to be the situation in Denmark, where this area has a strong potential for synergy and has numerous interactions with the national OAP. In general in Denmark single areas of action of EU OAP enters into synergy with many areas of national AP.

Measures with the label "European market" are essential for the success of the Denmark Action Plan, in addition these measures also enter into synergy with all other areas of the national OAP. This means that this group of measure has a strong potential for synergy.

Measures catalogued as "International trade" have a strong coefficient of synergy (1.00) in Italy, but enter into synergy with just 1 measure. This set of measures combines positive and negative effects of synergy which needs to be examined in qualitative terms. The positive effect of synergy can be viewed with measure 6, while the effect of conflict is with measure 4.

In general, in Italy areas of EU OAP have few interactions with areas of national AP. The situation is the contrary of what happens in Denmark.

"Rural development policy" measures are essential in the accomplishment of the UK Action Plan, showing a high coefficient of synergy and having interactions with all areas of national OAP. This group of measures does not enter into synergy with areas of national OAP just in Italy and in Netherlands. It is important to show that in Germany this group of measures has the highest coefficient of synergy (0.58), compared with the other ones: in general, the average of coefficient of synergy in this country is 0.51, due to the fact that all group of OAP measures have a weak potential for synergy with areas of national OAP although having an average of 4 interactions each. But the lowest coefficient of synergy average can be seen in Italy: just few measures have a strong potential for synergy, but in general few interactions are showed between the EU OAP areas and the Italian national Action Plan ones.

Measures grouped with the name "EU guided information and promotion" show a high coefficient of synergy in Italy and in Denmark but with few interactions.

"Joint research programmes" and "Environmental and other concerns" group of measures are fundamental for the execution of the UK Action Plan: they also enter into synergy with many other areas of UK OAP.

"International trade" measures exhibit negative effect for Italy, UK, Spain and Germany. It is clear that there is in general a conflict between these measures and the single national action plan, since the opening of international markets means also having difficulties in protecting national identities (for example, typical products, and so on).

The conflict arises in Italy and Germany with “Supply and producer support” area. In UK and Germany with “Certification and inspection” area and in Spain the negative coefficient of synergy is linked with the area related to “Market development”.

In general, these results confirm that the EU OAP has only few specific areas of conflicts with some national APs, while the synergies, albeit more numerous, are never of paramount importance. An explanation of this result may be identified in the different profile and target of the EU OAP in relation to the more specific national plans.

5 Conclusions

The assessment of programme content and failure risks is an important part of understanding the reasons for success or failure in terms of results and impacts. A poorly-designed programme could prove to be ineffective in terms of uptake, and inefficient in terms of resource use. Both these factors might impact negatively on stakeholder perceptions and affect future development potential of the organic sector. A well-designed programme should have well-specified objectives with a clear logical relationship between the objectives and the measures and actions intended to achieve them. Opportunities to maximise positive synergy between programme elements should be exploited. Clear priorities should be identified. Potential failure risks should be identified and measures put in place to reduce those risks. Evaluators should seek to identify whether these issues were addressed as part of the programme development and to identify issues in the design of the programme that might impact on, or help interpret, the eventual outcomes of the programme.

ORGAPET and its indicators appear as a good base for the detection of many problems regarding implementation of organic agriculture policy. The probability of detecting failure mode by ORGAPET toolbox is moderately high which means that the list of main indicators are able to face with the logical cause-effect structure of the problems. Clearly, indicators should probably be improved in order to explain in a more precise way what are the information included. This because in some cases the indicators seem to be unrealistic or just not available.

Concerning synergies and conflicts among actions, there is a substantially agreement on synergies among experts concerning each specific action. On the other hand, it is clear that there is no agreement on conflicts among experts on each specific actions.

The goal of this workpackages was to provide a first evaluation of the EU Organic Action Plan (OAP) and the Organic action plan evaluation toolbox (ORGAPET). Action Plan evaluation is a fundamental policy tool that should be a core element of any policy development. This report has shown the fundamental role that ORGAPET can have in providing a sound basis for the EU OAP evaluation and monitoring. The few shadows concerns mainly the availability of the data and the involvement of stakeholders in the assessment (connected with the *reliability* quality criterion*).*
The ORGAP project has developed many resources and tools to improve stakeholder involvement in the evaluation, and has provided a sound methodology to assess the EU OAP coherence and effects. Many of these resources and tools can be applied to other programme and action plans targeting the organic sector.

6 References

EC (European Commission), 2001. Europäisches Regieren – ein Weissbuch. Found at: > http://europa.eu.int/eur-lex/de/com/cnc/2001/com2001_0428de01.pdf<, 03.04.2007.

Eichert, C., Zorn, A. and S. Dabbert, 2006. Commission to practice what it preaches. In: The Organic Standard; (Grolink AB) Issue 63/July 2006, Volume 63, p. 3-5

European Commission (1999): The MEANS Collection: "Evaluating Socio-Economic Programmes", Office for Official Publications of the European Communities Luxembourg.

EU Commision (2004). European Action Plan for Organic Food and Farming. COM(2004) 415 final (10.06.2004). European Commission, Brussels.

Gengler, C.E. and T.J. Reynolds (1995). Consumer Understanding and Advertising Strategy: Analysis and Strategic Translation of Laddering Data. Journal of Advertising Research, July/August, 19-33.

Gutman, Jonathan (1982). "A Means-End Model Based on Consumer Categorization Processes." Journal of Marketing 46 (Spring): 60-72.

Lampkin, N.; Schmid, O.; Dabbert, S.; Michelsen, J. and Zanoli, R. (eds.) (2008) Organic action plan evaluation toolbox (ORGAPET). Final output of the ORGAP research project (www.orgap.org) for the European Commission. Institute of Biological, Environmental and Rural Sciences, Aberystwyth University, UK and Research Institute of Organic Agriculture (FiBL), Frick, CH.

McAndrew I., O'Sullivan J. 1993: FMEA (TQM Practitioner), Nelson Thornes Ltd, 60p.

Omdahl, T.P. (ed.), 1988, Reliability, Availability, and Maintainability Dictionary, ASQC Quality Press, Milwaukee, WI.

Perrault, W.M. and L.E. Leigh, (1989). Reliability of Nominal Data Based on Qualitative Judgements. Journal of Marketing Research, 26, 135-148.

Pieters R., Baumgartner H., Allen D. (1995): „A means-end chain approach to consumer goal structures", International Journal of Research in Marketing.

Reynolds, T. and J. Gutman (1988). Laddering Theory, Method, Analysis, and Interpretation, Journal of Advertising Research, 28 (1), 11- 31.

Rosenberg, M.J. (1956). Cognitive Structure and Attitudinal Affect, Journal of Abnormal and Social Psychology, 53, 367-372.

Shannon, M. A., 2003. Mechanisms for coordination. Cross-sectoral policy impacts between forestry and other sectors, FAO Forestry Paper (142). Y.C. Dubé and F.Schmithüsen (Eds.). FAO, Rome.

Skymax_Dg (2003). MecAnalyst Plus 1.0.18, software documentation.

Vriens, M., and F. Ter Hofstede (2000). "Linking Attributes, Benefits, and Consumer Value." Marketing Research: A Magazine of Management and Applications. p. 5–10.

EU Commission (2005): "Draft Working Paper on Ex Ante Evaluation", http://europa.eu.int/comm/regional_policy/sources/docoffic/working/sf2000_en.htm

7 Appendix 1

Hard laddering questionnaire

Subject:	Sub task 4.1 identification of potential implementation problem Final version for Meeting in Odense, May 29, 2006	ORGANIC ACTIONPLAN
Author:	Raffaele Zanoli, Simona Naspetti, Daniela Vairo, Susanna Vitulano Polytechnic University of Marche	Specific Support Action project: European Action Plan of organic food and farming
Date:	May 24, 2006	FP 6 - 006501

Self-Administered Questionnaire on identification of potential implementation problems related to EU OAP

final

ATTENTION PLEASE

INTRODUCTION:

The purpose of this questionnaire is to identify the potential failures and problems related to the EU Organic Action Plan (OAP) implementation and how you think and feel about the implication of these problems.

The questionnaire will enable to identify and rank the most relevant problem areas of the EU OAP implementation. It allows to:

- elicit what can go wrong (list of problems)
- define the logical cause-effect structure of the problem, by identifying all possible causes of each problem.

There are no right or wrong answers to any questions. We are only interested in understanding which are the potential implementation problems and what these problem means to you.

We assure you that all information you write in this questionnaire is confidential. We will never link your name with the answers.

As you complete each section, please remember:

1) READ all instructions before beginning.
2) Make sure you answer all questions as completely as possible at all levels.
3) DO NOT RUSH through any question in the questionnaire. Complete the questions as carefully as you can.

Instructions Part 1:

Now we'd like to know which are the EU Organic Action Plan potential implementation problems.

To do this we ask you, please:

1. generate a list of potential failures and problems of the EU OAP implementation;
2. list these failures and problems and rate their importance.

Continue to list until you can't be able to specify further aspects.

You should not feel obliged to fill in every box. It is important however, that you fill in as many aspects as you think can be considered as **potential failures and problems** of the **EU OAP implementation**.

PART 1:

1a) Indicate all potential failures and problems of the EU OAP implementation

[List all problems that you think are relevant to you]

1	6
2	7
3	8
4	9
5	10

1b) *Choose* the most important 3 and order them (*A most important- C less important*).

(A)
(B)
(C)

Instructions Part 2:

Now we'd like to identify all possible causes of each problem/failure.

To do this please write down on top of each of the next pages the 3 problems you considered the most relevant (see previous step 1b).

Then write down in (a) **what are the potential effects** of each problem.

Then move to box 2, and write down **what circumstances could cause the problem**.

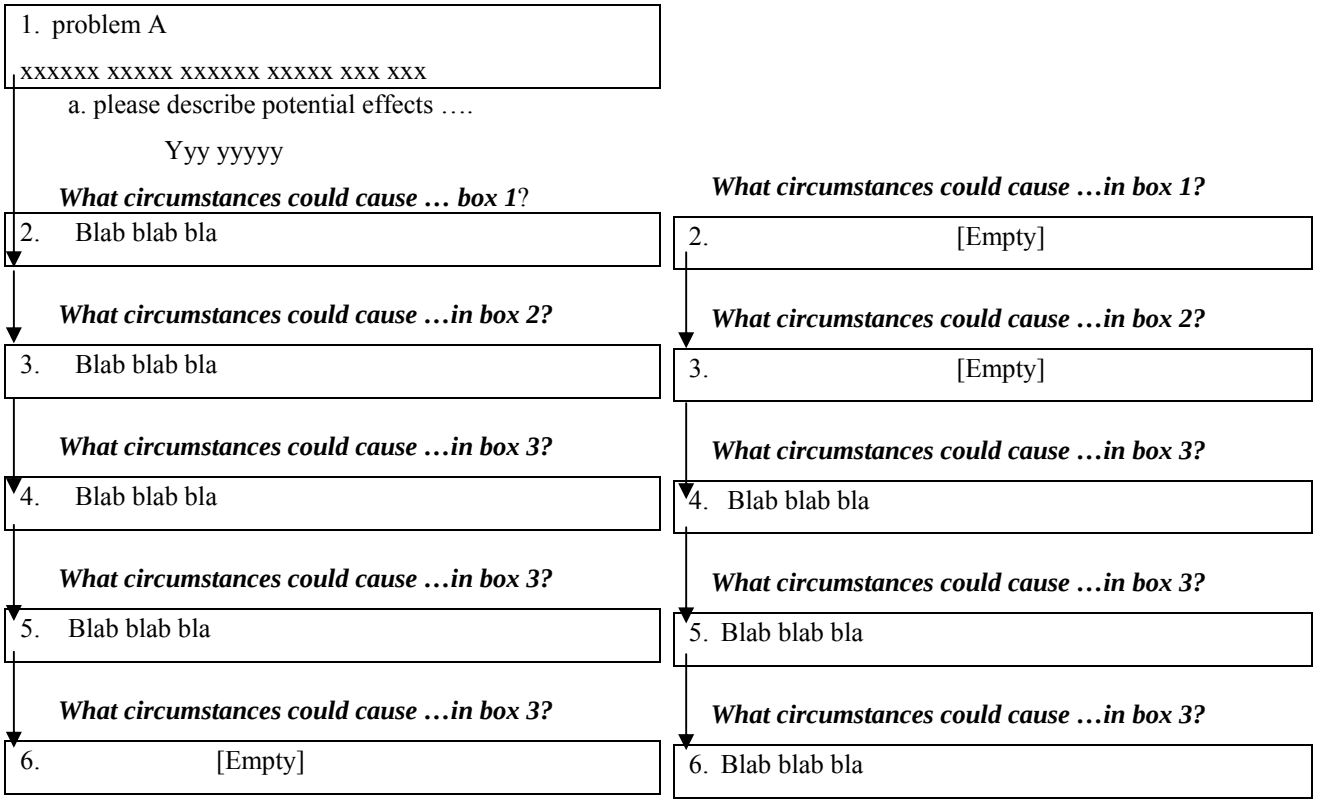
Then move to box 3 and write down what circumstances could cause the problem in box 2.

Continue until you don't have any more relevant thought to express.

Note: Whenever, but not necessarily, you need to mention *more than one circumstance* you have the possibility to complete the column on the right side of the questionnaire, too. You DO NOT NEED TO DRAW ANY ARROW to link boxes, just write the new circumstance on the right side of the page and move down. But do not forget the left side!

Please, DO NOT CHANGE the NUMBERS of the SEQUENCES

For example: you have two circumstances which cause the problem in box 3 (See below)



THANK YOU VERY MUCH FOR YOUR COOPERATION! ☺

Write down the problem (A) (*question 1b page 3*):

1.

a. Please describe the potential effects of this problem:

……..……

……..……

……..

What circumstances could cause the problem in box 1?

2.

What circumstances could cause the problem in box 2?

3.

What circumstances could cause the problem in box 3?

4.

What circumstances could cause the problem in box 4?

5.

What circumstances could cause the problem in box 5?

6.

What circumstances could cause the problem in box 1?

2.

What circumstances could cause the problem in box 2?

3.

What circumstances could cause the problem in box 3?

4.

What circumstances could cause the problem in box 4?

5.

What circumstances could cause the problem in box 5?

6.

Write down the problem (B) (*question 1b page 3*):

1.

a. Please describe the potential effects of this problem:

……..……

……..……

……..

***What circumstances could cause the problem in box 1*?**

2.

What circumstances could cause the problem in box 2?

3.

What circumstances could cause the problem in box 3?

4.

What circumstances could cause the problem in box 4?

5.

What circumstances could cause the problem in box 5?

6.

***What circumstances could cause the problem in box 1*?**

2.

What circumstances could cause the problem in box 2?

3.

What circumstances could cause the problem in box 3?

4.

What circumstances could cause the problem in box 4?

5.

What circumstances could cause the problem in box 5?

6.

Write down the problem (C) (*question 1b page 3*):

1.

b. Please describe the potential effects of this problem:

……..……

……..……

……..

***What circumstances could cause the problem in box 1*?**

2.

What circumstances could cause the problem in box 2?

3.

What circumstances could cause the problem in box 3?

4.

What circumstances could cause the problem in box 4?

5.

What circumstances could cause the problem in box 5?

6.

***What circumstances could cause the problem in box 1*?**

2.

What circumstances could cause the problem in box 2?

3.

What circumstances could cause the problem in box 3?

4.

What circumstances could cause the problem in box 4?

5.

What circumstances could cause the problem in box 4?

6.

8 Appendix 2

Process of identification of potential implementation problems of the EU Organic Action Plan: the ORGAP project

Severity

Characteristics of failure		Ranking
Cause	**Effects**	Severity
Conventional interests against organic lobby	Lack of financial resources	-
Lack of information	Lack of political interest to support OF	-
Research not enough developed	Lack of importance given to OF	-
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	-
Weak lobbying for OF	No mandatory implementation of AP	-
Lack of stakeholder involvement	Lack of capacity building	-
Different priorities among MS	General implementation problems	-
Different interests between EU and MS	Inadequate rules/procedures	-

Ranking	Effect	Criteria: Severity of Effect
1	None	No effect
2	Very Minor	Very minor effect, mainly in the attitudes of operators/businesses.
3	Minor	Minor effect. Sporadic problems of organic businesses are reported.
4	Low	Small effect. Only very few business are affected without significant effects on organic land area (less than 5%)
5	Moderate	Moderate effect. At least 5% of organic businesses are affected and/or 5% of organic land area.
6	Significant	The effect is tangible and widespread. At least 10% of organic businesses are affected and/or 10% of organic land area.
7	Major	The organic sector is severely affected but still in operation. At least 30% or organic businesses are affected and/or 30% of organic land area. The profitability of organic business is significantly reduced.
8	Extreme	The organic sector becomes highly disrupted, with more than 50% of organic businesses affected and/or 50% of organic land area. The profitability of organic farming is generally lower than in conventional farming.
9	Serious	The organic sector is almost irrecoverable, and non compliance with govt. regulations or standards is a common outcome.
10	Hazardous	The organic sector disappears.

Occurrence

Characteristics of failure		Ranking
Cause	**Effects**	Occurrence
Conventional interests against organic lobby	Lack of financial resources	-
Lack of information	Lack of political interest to support OF	-
Research not enough developed	Lack of importance given to OF	-
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	-
Weak lobbying for OF	No mandatory implementation of AP	-
Lack of stakeholder involvement	Lack of capacity building	-
Different priorities among MS	General implementation problems	-
Different interests between EU and MS	Inadequate rules/procedures	-

Ranking	Probability of Occurrence
1	Nearly Impossible
2	Remote
3	Low
4	Relatively Low
5	Moderate
6	Moderately High
7	High
8	Repeated Failures
9	Very High
10	Extremely High: Failure Almost Inevitable

Detection/1

Characteristics of failure		Ranking
Cause	**Effects**	Detection probability
Conventional interests against organic lobby	Lack of financial resources	-
Lack of information	Lack of political interest to support OF	-
Research not enough developed	Lack of importance given to OF	-
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	-
Weak lobbying for OF	No mandatory implementation of AP	-
Lack of stakeholder involvement	Lack of capacity building	-
Different priorities among MS	General implementation problems	-
Different interests between EU and MS	Inadequate rules/procedures	-

Ranking	Detection Probability
1	Almost Certain Detection
2	Very High Chance of Detection
3	High Probability of Detection
4	Moderately High Chance of Detection
5	Moderate Chance of Detection
6	Low Probability of Detection
7	Very Low Probability of Detection
8	Remote Chance of Detection
9	Very Remote Chance of Detection
10	Absolute Uncertainity - No Control

Detection/2

Characteristics of failure		Cause Detection Indicators		Effect Detection Indicators	
Cause	**Effects**	1st indicator	2nd indicator	1st indicator	2nd indicator
Conventional interests against organic lobby	Lack of financial resources	-	-	-	-
Lack of information	Lack of political interest to support OF	-	-	-	-
Research not enough developed	Lack of importance given to OF	-	-	-	-
Inadequate information and promotion campaigns	Lack of knowledge/awareness on OF	-	-	-	-
Weak lobbying for OF	No mandatory implementation of AP	-	-	-	-
Lack of stakeholder involvement	Lack of capacity building	-	-	-	-
Different priorities among MS	General implementation problems	-	-	-	-
Different interests between EU and MS	Inadequate rules/procedures	-	-	-	-

The ORGAP Project

The European funded research project ORGAP (Evaluation of the European Action Plan for Organic Food and Farming) is intended to provide the scientific support for the implementation of the European Action Plan, and it will assess its long-term and short-term effects. The project started in May 2005 and will be of 3 years' duration.

The project partnership consists of 10 partners from 9 countries, covering different disciplines, stakeholder views and experiences with national action plans for Organic Agriculture.

The project will:

- Develop a toolbox to evaluate and monitor the implementation of the European Action Plan in the following areas: information, training and education, research, production, processing, market development, certification, public expenditures.
- Test the toolbox on a selection of existing national action plans.
- Identify conflict and synergy areas between targets of European and national action plans.
- Analyse the implementation processes and procedures.
- Make policy recommendations to the European Commission, national authorities as well as further actors.

The ORGAP evaluation toolbox should be useful to and usable by a range of involved stakeholders, including national and EU administrations and policy-makers as well as organic sector and other NGOs.

What is planned in the project

Within the project the following working areas will be addressed:

1. **Development of the organic action plan evaluation toolbox (ORGAPET),** incorporating quantitative and qualitative product and process indicators covering the key areas of the EU organic action plan, building on existing socio-economic and agri-environmental policy evaluation methods (MEANS, IRENA) and incorporating work from current and previous projects on organic farming policy analysis and development. Stakeholder input into the development of the toolbox is emphasised – the development of the toolbox is foreseen as an on-going, iterative process with several versions being debated and tested.
2. **General overview and status quo analysis of national action plan objectives, design and implementation in 8 case study countries**. Group interviews with stakeholders in the case study countries are used to assess the feasibility of applying the ORGAPET approach at national level and to prepare for its application at the European level. In a special subtask there will be a **focus group discussio**n on the identification of areas of conflict and/or synergy between objectives of national and EU action plans and their significance for the implementation of the EU Action Plan at national level.
3. **Early assessment of the potential risks and problems associated with specific policy-relevant areas and assistance in the initial implementation of the EU Organic Action Plan** by offering a structure for thinking through the likelihood, seriousness and probability of detection of potential problems. This also involves the testing of the ORGAP evaluation toolbox at the European level in the context of the early stages of implementation of the EU Organic Action Plan.
4. **Synthesis of the results of the analyses of national action plans and the implementation of the EU action plan**, taking into account potential conflict/synergy areas and risk/problems. Policy conclusions relating to the implementation and development of EU and national action plans are identified. On the basis of the testing in earlier work packages, the ORGAP evaluation toolbox will be revised and a manual for the initiation and evaluation of action plans produced.
5. **Effective integration of stakeholders in the project work** by means of national workshops, interviews with national stakeholders, European advisory committee meetings, electronic discussion

groups and other means of consultation with/dissemination to stakeholders and non-academic audiences. In addition, a mid-project European seminar will be organised in order to present results of early work packages and consider issues for more detailed analysis in later work packages.

The ORGAPET evaluation toolbox

The ORGAP evaluation toolbox (ORGAPET) is a collection of different evaluation tools, including participative techniques, quantitative assessments and methods to identify relevant indicators, which could be used selectively to meet the needs of a particular assessment of national or EU action plans. ORGAPET is therefore not a single piece of software or a set of procedures to be followed strictly in their entirety. The toolbox (similar in concept but not as large as the 6-volume MEANS collection) is structured around ‘compartments’ or sections containing ‘tools’ fulfilling different functions.

Characteristics of failure – description examples

Cause	Effects
Conventional interests against organic lobby - prevailing non-OF interests (or anti-OF) - most units in DG AGRI deal more with other parts of agricultural sector that are in conflict with organic ideas - too big influence of conventional agr. and biotech. Lobby	**Lack of financial resources**
Lack of information - not enough information on the needs and impacts - not enough information to stakeholders - no information about benefits for public - lack of information channels and lack of information about conventional products methods	**Lack of political interest to support OF** - lack of political will - no full support of OF in the Commission and member states - The finance ministers do not prioritize OF - OF not considered important enough to allocate sufficient budget
Research not enough developed	**Lack of importance given to OF** - No priority given to OF at EU and member state level - OF is not perceived by most of researchers as a legitimated scientific field - OF has not the highest priority in the EU - OF development not having high importance at political level
Inadequate information and promotion campaigns - inadequate promotion activities - lack of information campaign to know organic products	**Lack of knowledge/awareness on OF** - lack of knowledge about organic values - lack of knowledge on basic principles of nature & life & humanity - low political awareness on OF potential - the understanding of OF effects is low
Weak lobbying for OF - lobbying for OF just started recently and with low resources at EU-level - insufficient lobby work - not enough lobbying by the OF sector - the "organic people" still isolated in their specific institutions - lack of leadership	**No mandatory implementation of AP** - OAP is formal action of EU Commission - EU Action Plan is only a set of recommendations - MS not to fulfil their obligations - Although the guidelines for rural development plan clearly indicates OF support, the statement is not mandatory and it is confined to axis II measures. Market and promotion measures are in axis I. - MS are ignoring the recommendation to use a range of possible RDP instruments to support OF
Lack of stakeholder involvement - not enough influence of stakeholders in decision making process - low/lack interest among key market stakeholders	**Lack of capacity building** - deficit in OF capacity building - too poor competences in human resource management
Different priorities among MS - different perception of OF in the MS - too great cultural differences among MS - MS have to choose between many objectives in RDP	**General implementation problems** - some of the planned actions not implemented or not fully implemented - it is insure how they will be implemented, there is much room for good or bad implementation - limited implementation (e.g. not enough research, the money for the campaign will be too less to have an impact, etc.) - longer time for implementation - EU OAP was never meant by Commission to be implemented - Bad implementation of EU logo campaigns
Different interests between EU and MS - perception on what OF could contribute to EU agricultural policy goals vary within EU and MS - MS have other priorities	**Inadequate rules/procedures** - time schedule too strict and tight - many action are non-concrete - the Commission financial procedures is too complicated - unclear regulation - solving problem with new bureaucratic measures

9 Appendix 3

EU Action Plan for Organic Food and Farming (2004)

measures	*EU Action Plan for Organic Food and Farming (2004)*
eu1	Develop an information and promotion campaign by amending Reg. 2826/2000 (internal market promotion), launching a multi-annual EU-wide information and promotion campaign to inform consumers, public institutions canteens, schools and other key actors in the food chain about the merits of organic farming, especially its environmental benefits, and to increase consumer awareness and recognition of organic products, including recognition of the EU logo, in co-ordination with member states and professional organizations.
eu2	Establish and maintain an Internet database listing the various private and national standards (including international standards and national standards in main export markets) compared to the Community standard.
eu3	Improve the collection of statistical data on both production and marketing of organic products
eu4	Allow Member States to top-up with aids the EU support devoted to fruit and vegetable sector producer organisations involved in organic food
eu5	Develop a web-based menu listing all EU measures that can be used by the organic sector in relation to production, marketing and information.
eu6	Strongly recommend Member States to make full use within their rural development programmes of the instruments available to support organic farming, for example by developing national or regional action plans focusing on using: • quality schemes to stimulate demand; • actions to benefit the environment; • incentives to encourage whole farm conversion; • investment support for organic as non-organic farmers; • incentives for producers to facilitate distribution and marketing and supply chain integration; • support for extension services; training and education covering production, processing and marketing; • organic farming as the preferred management option in environmentally sensitive areas.
eu7	Strengthen research on organic agriculture and production methods.
eu8	Make the regulation more transparent by defining the basic principles of organic agriculture.

eu9	Ensure the integrity of organic agriculture by reinforcing the standards and maintaining the foreseen end dates of the transitional periods.
eu10	Complete and further harmonise the standards for organic agriculture
eu11	Establish an independent expert panel for technical advice.
eu12	Set thresholds for adventitious presence of GMOs and clarify labeling provisions relating to GMOs in Reg. 2092/91
eu13	Improve the performance of the inspection bodies and authorities by introducing a risk-based approach targeting operators presenting the highest risk in terms of fraudulent practices, and by requiring cross-inspections under Reg. 2092/91.
eu14	Continue the ongoing work in the JRC to develop sampling and analytical methods which can be used in organic farming.
eu15	Member States should look at using CAP management land parcel identification for the location and monitoring of the land under organic farming.
eu16	Ensure better coordination among inspection bodies and between the inspection bodies and the enforcement authorities under Reg. 2092/91.
eu17	Develop a specific accreditation system for inspection bodies under Reg. 2092/91.
eu18	Publish an annual report from the Member States on the supervision of approved inspection bodies including statistics on type and number of breaches..
eu19	Improve procedures for establishing technical equivalency and inclusion of third countries including replacing national derogations with a single, permanent list of recognized inspection bodies operating in third countries, taking account of the different climate and farming conditions and the stage of development of organic farming in each country and offering all imported products access to the EU logo.
eu20	Compare EU, Codex Alimentarius and IFOAM standards and increase efforts towards global harmonisation and development of multilateral equivalency. Support capacity-building in developing countries under EU development policy by facilitating information on using general support instruments for organic agriculture and other measures.
eu21	Reinforce recognition of EU organic farming standards and inspection systems in third countries by obtaining a negotiation mandate from the Council.

10 Appendix 4

Synthetic coefficients of synergy and the coefficient of variation between pairs of actions of the EU OAP

	ITALY			UNITED KINGDOM			SLOVENIA			SPAIN			GERMANY			NETHERLANDS			DENMARK							
Actions	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot Sum S+	Tot Sum n+	μ	δ	CV
1	18	13	0,69	19	16	0,59	5	5	0,50	9	5	0,90	2	2	0,50	7	4	0,88	17	13	0,65	77	58	0,67	0,16	0,24
2	13	12	0,54	13	9	0,72	5	4	0,63	8	4	1,00	10	9	0,56	12	7	0,86	12	10	0,60	73	55	0,70	0,17	0,25
3	21	14	0,75	11	11	0,50	5	4	0,63	2	1	1,00	5	3	0,83	4	3	0,67	15	12	0,63	63	48	0,71	0,16	0,23
4	3	2	0,75	5	5	0,50	4	3	0,67	1	1	0,50	2	2	0,50	4	3	0,67	5	4	0,63	24	20	0,60	0,10	0,17
5	9	5	0,90	7	7	0,50	4	3	0,67	2	1	1,00	8	6	0,67	1	1	0,50	5	4	0,63	36	27	0,69	0,19	0,27
6	9	7	0,64	12	11	0,55	8	6	0,67	2	1	1,00	5	4	0,63	7	5	0,70	16	11	0,73	59	45	0,70	0,14	0,21
7	11	8	0,69	10	10	0,50	20	13	0,77	3	2	0,75	6	6	0,50	9	8	0,56	10	8	0,63	69	55	0,63	0,11	0,18
8	9	7	0,64	15	9	0,83	18	13	0,69	3	2	0,75	12	12	0,50	13	7	0,93	13	11	0,59	83	61	0,71	0,15	0,21
9	9	6	0,75	26	16	0,81	17	14	0,61	4	2	1,00	12	12	0,50	21	11	0,95	26	17	0,76	115	78	0,77	0,18	0,23
10	11	7	0,79	21	13	0,81	20	13	0,77	12	9	0,67	11	11	0,50	14	7	1,00	30	18	0,83	119	78	0,77	0,15	0,20
11	5	5	0,50	14	11	0,64	13	11	0,59	12	9	0,67	5	5	0,50	3	2	0,75	19	17	0,56	71	60	0,60	0,09	0,15
12	11	6	0,92	14	11	0,64	17	11	0,77	14	10	0,70	8	8	0,50	10	6	0,83	18	13	0,69	92	65	0,72	0,14	0,19
13	14	9	0,78	15	12	0,63	22	13	0,85	16	12	0,67	12	12	0,50	8	4	1,00	21	16	0,66	108	78	0,72	0,16	0,23
14	6	5	0,60	5	5	0,50	13	11	0,59	8	6	0,67	4	4	0,50	10	6	0,83	10	8	0,63	56	45	0,62	0,11	0,18
15	5	4	0,63	7	6	0,58	4	3	0,67	7	5	0,70	5	5	0,50	2	1	1,00	9	8	0,56	39	32	0,66	0,16	0,25
16	8	7	0,57	15	12	0,63	11	10	0,55	14	11	0,64	8	8	0,50	4	4	0,50	25	16	0,78	85	68	0,59	0,10	0,17
17	6	5	0,60	10	7	0,71	14	11	0,64	12	10	0,60	4	4	0,50	6	4	0,75	24	16	0,75	76	57	0,65	0,09	0,14
18	9	7	0,64	9	8	0,56	10	8	0,63	17	11	0,77	9	8	0,56	7	5	0,70	18	12	0,75	79	59	0,66	0,08	0,13
19	10	7	0,71	20	13	0,77	15	12	0,63	17	11	0,77	11	11	0,50	17	10	0,85	18	13	0,69	108	77	0,70	0,11	0,16
20	11	8	0,69	21	15	0,70	17	12	0,71	19	12	0,79	9	8	0,56	13	7	0,93	13	12	0,54	103	74	0,70	0,13	0,19
21	10	6	0,83	9	7	0,64	6	6	0,50	20	11	0,91	8	8	0,50	18	11	0,82	14	9	0,78	85	58	0,71	0,17	0,23

11 Appendix 5

Synthetic coefficients of synergy and the coefficient of variation between pairs of actions of the EU OAP

	ITALY			UNITED KINGDOM			SLOVENIA			SPAIN			GERMANY			NETHERLANDS			DENMARK							
	Tot	Nr.			Nr.		Tot	Nr.					Tot	Nr.		Tot	Nr.		Tot	Nr.		Tot Sum	Tot Sum			
Actions	s-	n-	Cs-	Tot s-	n-	Cs-	s-	n-	Cs-	Tot s-	Nr. n-	Cs-	s-	n-	Cs-	s-	n-	Cs-	s-	n-	Cs-	S+	n+	μ	δ	CV
1	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
2	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
3	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
4	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	- 0,50	-1	1	-0,07	0,19	2,65
5	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
6	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
7	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
8	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-2	1	- 1,00	-2	1	-0,14	0,38	2,65
9	0	0	-	-1	1	- 0,50	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	-0,07	0,19	2,65
10	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
11	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
12	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
13	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
14	0	0	-	-1	1	- 0,50	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	-0,07	0,19	2,65
15	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
16	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	- 0,50	0	0	-	0	0	-	-1	1	-0,07	0,19	2,65
17	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	- 0,50	0	0	-	0	0	-	-1	1	-0,07	0,19	2,65
18	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0,00	0,00	-
19	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	- 0,50	-1	1	-0,07	0,19	2,65
20	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-2	1	- 1,00	-2	1	-0,14	0,38	2,65
21	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-4	2	- 1,00	-4	2	-0,14	0,38	2,65

12 Appendix 6

Synthetic coefficients of synergy between areas of action of EU OAP with the national AP

	ITALY			UNITED KINGDOM			SLOVENIA			SPAIN			GERMANY			NETHERLANDS			DENMARK		
Areas	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+	Tot s+	Nr. n+	Cs+
1	3	3	0,50	4	4	0,50	5	5	0,50	11	6	0,92	7	7	0,50	5	5	0,50	11	7	0,79
2	3	2	0,75	1	1	0,50	3	2	0,75	10	8	0,63	4	4	0,50	4	4	0,50	12	8	0,75
3	0	0	-	4	4	0,50	3	3	0,50	10	7	0,71	5	5	0,50	9	6	0,75	16	8	1,00
4	2	1	1,00	4	3	0,67	4	4	0,50	6	4	0,75	3	3	0,50	9	6	0,75	12	8	0,75
5	1	1	0,50	14	8	0,88	7	7	0,50	10	6	0,83	7	6	0,58	0	0	-	7	6	0,58
6	2	1	1,00	6	5	0,60	5	5	0,50	6	6	0,50	3	3	0,50	5	3	0,83	6	5	0,60
7	0	0	-	9	6	0,75	1	1	0,50	4	4	0,50	5	5	0,50	3	3	0,50	8	8	0,50
8	0	0	-	10	7	0,71	1	1	0,50	11	8	0,69	4	4	0,50	3	3	0,50	5	5	0,50

13 Appendix 7

Synthetic coefficients of contrast between areas of action of EU OAP with the national AP

	ITALY			UNITED KINGDOM			SLOVENIA			SPAIN			GERMANY			NETHERLANDS			DENMARK		
Areas	Tot s-	Nr. n-	Cs-	Tot s-	Nr. n-	Cs-	Tot s-	Nr. n-	Cs-	Tot s-	Nr. n-	Cs-	Tot s-	Nr. n-	Cs-	Tot s-	Nr. n-	Cs-	Tot s-	Nr. n-	Cs-
1	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
2	0	0	-	-1	1	-0,50	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
3	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
4	-2	1	-1,00	-1	1	-0,50	0	0	-	-1	1	-0,50	-2	2	-0,50	0	0	-	0	0	-
5	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
6	0	0	-	0	0	-	0	0	-	0	0	-	-1	1	-0,50	0	0	-	0	0	-
7	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
8	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	-2	1	-1,00

14 Annex 1

ORGAPET Generic indicators following WP 2

Please note that in the following, the primary indicators for which data should be available and which could be used in every evaluation are numbered and in bold (these have been used for the ORGAP evaluation toolbox), and secondary (optional) indicators where supplementary information might need to be collected are indicated with letters.
The objectives covered relate to the revised list of generic objectives resulting from WP2 national workshops.

A. Programme design process indicators

	Indicator	***Objectives covered***
A1	**Prior policy initiatives (extent/type – e.g. standards, financial support)**	**All**
A2	**Occasion/problem leading to policy initiative (agenda for policy process)**	**All**
A3	**Nature of stakeholders involved in preparing and making policy decision (identify range of stakeholder types, public/private, area of interest)**	**All**
Aa	Stakeholder attitudes to action plan (degree of support/opposition and causes, e.g. ignorance or agreement/disagreement)	All
A4	**Scope of final plan/policy decision (number and integration of objectives/action points**	**All**

B. Resource and implementation process indicators

	Indicator	***Objectives covered***
B1	**Budget allocated to individual action points (or action plan in total)**	**All**
B2	**Existence, composition and authority and frequency of meetings of a board/advisory group with stakeholder representation (including nature of stakeholder involvement, e.g. participatory or advisory with respect to development, prioritisation, implementation and evaluation aspects)**	**n/a**
Ba	Number of staff allocated to action plan co-ordination and implementation	n/a
Bb	Stakeholders involved in implementation categorised by: - type (public/private/area of interest); - orientation to action plan (for/against); - degree of involvement (central/peripheral); - access to resources to support involvement	n/a
Bc	Organizational changes with regard to organic farming within the agriculture sector	n/a
Bd	Formal/legal basis for action plan (alternatively status defined as government or industry owned or driven)	n/a
Be	Degree of inter-agency competition	n/a
Bf	Interplay between providers and beneficiaries, including beneficiary's: - comprehension of the intervention (central or peripheral to main activity); - capability (economic and otherwise) available relevant to the intervention and - the actual willingness to act in support of or in opposition to organic action plans as such or of any concrete element of the action plan.	n/a

C. Output indicators

	Indicator	*Objectives covered*
C1	**Number (or proportion) of action points achieved/ completed (NB this does not say that they were effective in achieving their aims – indicators for this are considered under 'results' and 'impacts')**	**All**
C2	**Actual expenditure on individual action points (or action plan in total)**	**All**
C3	**Area/holdings/businesses/people/animals/projects supported by individual action points**	**All**
Ca	From indicators C2 and C3, expenditure per unit can be calculated	All

D. Result indicators

DI. Production related

	Indicator	*Objectives covered*
DI1	**Number of certified organic and in-conversion holdings (NB number of policy-supported holdings is an output indicator)**	**1, 2**
DI2	**Area of certified organic and in-conversion land**	**1, 2, 8**
DI3	**Organic farm incomes and returns to labour**	**1, 11**
DIa	indicators DI1-DI3 differentiated by land use, livestock numbers, region, farm type and size.	As indicators DI1-DI3
DIb	new entrants/withdrawals	1, 2
DIc	number (or %) of organic farms remaining in business after 8 years	1, 11
DId	organic producer prices	1, 11
DIe	productivity: yields or financial output per ha (could be derived from indicator DI3)	1
DIf	capital investment levels, and returns on capital investment (could be derived from indicator DI3)	1
DIg	Producer confidence in a) conversion, b) economic/market situation	1
DIh	other measures of production system quality and performance?	??

DII. Market related

	Indicator	*Objectives covered*
DII1	**Number of registered organic processing/ trade/ distribution etc. businesses**	**2, 6, new (AND)**
DII2	**Organic market size (retail sales value and/or volume), in total and as share overall food market**	**1, 2, 3, 11, new (NL)**
DII3	**Expenditure on organic food per inhabitant**	**2, 3**
DIIa	Indicator **DII3** differentiated by product	1, 2, 3, 11
DIIb	Number of registered organic producers engaged in processing, tourism, retailing or other consumer-facing activities	1, 2
DIIc	Turnover of registered organic businesses (indicator DII1)	1
DIId	Organic consumer prices	1, 3
DIIe	Value added by organic market (= difference between organic consumer and producer prices, although arguably conventional producer price should be used as baseline)	1, 3
DIIf	Percent of committed/occasional organic consumers	3, 4, 6
DIIg	Consumer recognition of organic logos (EU and local) and understanding of meaning of organic	3, 4, 5, 6
DIIh	Proportion of products produced organically that are marketed as organic	1, 2
DIIi	Number of organic product lines	2
DIIj	Other measures of food/food system quality and performance	??

DIII. Regulation and integrity

	Indicator	*Objectives covered*

DIII1	**Number of regulatory non-compliances identified by inspection process**	**4**
DIIIa	Number of deviations in regulations between EU countries	4, 5
DIIIb	Number of revisions to EU regulation	4, 5
DIIIc	Number of pages of forms to be completed	4
DIIIe	Consumer confidence and trust in organic label	3, 4, 5
DIIIf	Additional indicators to capture standards/regulation-related action points	??
DIV. Capacity (skills, expertise, institutional base)		
DIVa	Numbers of training courses/educational facilities specialising in organic food and farming	1. 2, 5, 6
DIVb	Number of consultants/other experts specialising in organic food and farming	1. 2, 5, 6
DIVc	Improvement of services, structures and resources for organic farmers	new (AND)

E. Impact indicators (see also further considerations below)

	Indicator	***Objectives covered***
E1	**Energy use and outputs**	**7, 8**
E1a	Energy efficiency (fossil energy) - Energy audit	7
E2	**Purchased nutrients, nutrient balances**	**7, 8**
E2a	Quantity of purchased farm inputs used	7, 8
E2b	Nitrate loading per hectare	7, 8
E3	**Reduction in veterinary derogations**	**9**
E3a	Longevity of breeding stock	9
E3b	Number of farms adopting increased welfare standards	9
E4	**Employment on organic holdings**	**10,**
E4a	Increase of agricultural workers	10
E4b	Demographic balance of residents: immigrants-emigrants	10

F. Context indicators

	Indicator	***Objectives covered***
Fa	comparative indicators for agriculture in general	All
Fb	Policy expenditure data	All
Fc	Business characteristics- farm type, economic/physical size of farm/enterprise	All
Fd	Social characteristics - age, gender, education level, external income	All
Fe	Environmental characteristics - less favoured area and other designations	All

15 Annex 2

Final ORGAPET generic indicators

The classification of indicators used here is that outlined in ORGAPET Section C2, which is an adaptation of the MEANS/Evalsed classification. In the following tables, a distinction is also made between primary indicators, for which data should be readily available and which could be used in every evaluation, and secondary (optional) indicators where supplementary information might need to be collected.

In addition to the indicator identifier and description, the relevance of the indicator to the specific generic objectives (GO) identified in ORGAPET Section C1, and the individual EU organic action plan (EU) action points is also shown.

A: Primary generic programme design indicators for action plan evaluation

Indicator		*Relevance*
A1	Programme content	GO: All EU: All
A2	Programme design scoring (secondary indicators)	GO: All EU: All
A3	Programme design qualitative assessment	GO: All EU: All
A4	Stakeholder engagement (qualitative assessment)	GO: All EU: All

B: Primary generic resource/implementation indicators for action plan evaluation

Indicator		*Relevance*
B1	Budgeted/planned expenditure for individual actions or plan in total	GO: All EU: All
B2	Number of staff months allocated to implementation for individual actions or plan in total	GO: All EU: All
B3	Legal framework for programme	GO: All EU: All
B4	Monitoring/evaluation implemented from start of programme	GO: All EU: All
B5	Stakeholder engagement (qualitative assessment)	GO: All EU: All

C: Primary generic output indicators for action plan evaluation

Indicator		*Relevance*
C1a	Number (or proportion) of action points achieved/ completed with description	GO: All EU: All
C1b	Number (or proportion) of action points started/ in progress with description	GO: All EU: All
C2	Actual expenditure on individual actions or plan in total	GO: All EU: All
C3	Area/ holdings/ businesses/ people/ animals/ projects/ events supported by individual action points (secondary indicators)	GO: All EU: 1, 3, 4, 6, 7
C4	Availability of statistical data to meet business and policy evaluation needs by topic/indicator	GO: All EU: All

D: Primary generic result indicators for action plan evaluation

Indicator		*Relevance*
D1	Number of certified organic and in-conversion holdings (secondary indicators)	GO: All EU: All
D2	Area of certified organic and in-conversion land (secondary indicators)	GO: All EU: All
D3	Organic farm incomes (secondary indicators)	GO: 1-4, 10, 11 EU: All
D4	Number of certified market operators (secondary indicators)	GO: 1-4, 10, 11 EU: All
D5	Organic market size (retail sales value and/or volume) by region (secondary indicators)	GO: 1-4, 10, 11 EU: All
D6	Consumer confidence and trust (secondary indicators)	GO: 3-6 EU: 1, 8-21
D7	Business confidence (secondary indicators and indicator D11iii)	GO: 1-4, 10, 11 EU: All
D8	Number of control organizations (secondary indicators)	GO: 1-5 EU: 9-21
D9	Number of inspection visits (secondary indicators)	GO: 2-5 EU: 9-21
D10	Number/frequency of revisions to key regulations (secondary indicators)	GO: 3-5 EU: 2, 8-21
D11	Regulatory burden on businesses (secondary indicators)	GO: 1, 4, 5, 11, 12 EU: 2, 9-21
D12	Number of research and extension organisations supporting organic food and farming (secondary indicators)	GO: All EU: 1, 3, 6, 7, 9, 11, 14

E: Primary generic impact indicators for action plan evaluation

Indicator		*Relevance*
E1	Overall environmental impact (secondary indicators)	GO: 4-8 EU: 7-9
E2	Overall animal health and welfare impact (secondary indicators)	GO: 4-6, 9, 12 EU: 7-9
E3	Overall social impact (secondary indicators)	GO: 4-6, 10, 12 EU: 6-9
E4	Overall economic/ rural development impact (secondary indicators)	GO: 1-7, 10, 11 EU: 1, 3, 4, 6-9
E5	Overall food quality/ safety/ security impact (secondary indicators)	GO: 1-6,12 EU: All

A2 Programme design secondary indicators

Indicator		*Relevance*
A2i	Clarity of objectives (SMART)	GO: All EU: All
A2ii	Logic	GO: All EU: All
A2iii	Synergy	GO: All EU: All
A2iv	Priority	GO: All EU: All
A2v	Failure risk	GO: All EU: All

C3 Uptake/activity levels supported by individual action points - secondary indicators

Indicator	*Relevance*

C3i	Expenditure per unit supported	GO: All EU: 1, 3, 4, 5, 7
C3ii	Proportion of organic businesses receiving support	GO: All EU: 1, 3, 4, 6, 7
C3iii	Proportion of organic land area receiving support.	GO: All EU: 4, 6

D1 Number of certified organic and in-conversion holdings secondary indicators

Indicator		*Relevance*
D1i	Number of new entrants/ withdrawals	GO: All EU: All
D1ii	D1, D1i differentiated by farm type and size	GO: All EU: All
D1iii	D1, D1i, D1ii differentiated by region	GO: All EU: All

D2 Area of certified organic and in-conversion land secondary indicators

Indicator		*Relevance*
D2i	D2 differentiated by farm type, land use and livestock numbers	GO : All EU: All
D2ii	D2, D2i differentiated by region	GO: All EU: All
D2iii	Output quantity by crop/ livestock type	GO: 1, 2, 3, 11, 12 EU: 3, 6, 7

D3 Organic farm incomes secondary indicators

Indicator		*Relevance*
D3i	D3 differentiated by farm type, size and region	GO: 1-4, 10, 11 EU: All
D3ii	Returns to different labour types (family, non-family)	GO: 1-3, 10, 11 EU: 6
D3iii	Returns to capital invested	GO: 1-4, 10, 11 EU: All
D3iv	Support payments by type as % of income	GO: 1,2,10, 11 EU: 4,6
D3v	Producer prices	GO: 1-4, 10, 11 EU: All

D4 Certified market operators secondary indicators

Indicator		*Relevance*
D4i	Turnover of registered organic businesses	GO: 1-4, 10, 11 EU: All
D4ii	Number of registered organic producers engaged in processing, tourism, retailing or other consumer-facing activities	GO: 1-4, 10, 11 EU: All

D5 Organic market size secondary indicators

Indicator		*Relevance*
D5i	Expenditure on organic food per inhabitant	GO: 1-4, 10, 11 EU: All
D5ii	D5 and D5i differentiated by product	GO: 1-4, 10, 11 EU: All
D5iii	Proportion of organic production marketed as organic	GO: 1-4, 10, 11 EU: All
D5iv	Domestic self-sufficiency	GO: 1-4, 10, 11, 12 EU: All
D5v	Import/ export trade levels (supply balance)	GO: 1-4, 10, 11, 12 EU: All
D5vi	Consumer prices	GO: 1-4, 10, 11 EU: All
D5vii	Value added by organic market	GO: 1-4, 10, 11 EU: All

D6 Consumer confidence and trust secondary indicators

Indicator		*Relevance*
D6i	Consumer purchasing commitment (loyalty/ intensity)	GO: 3, 4, 6 EU: 1, 8-21
D6ii	Consumer recognition/ understanding, differentiated by D6i	GO: 3-6 EU: 1, 8-21

D7 Business confidence secondary indicators

Indicator		*Relevance*
D7i	Level of private sector investment in organic market	GO: 1-4, 10, 11 EU: All
D7ii	Business longevity differentiated by business type and region	GO: 1-4, 10, 11 EU: All

D8 Control bodies secondary indicators

Indicator		*Relevance*
D8i	D8 differentiated by private/public sector status	GO: 1-5 EU: 9-21
D8ii	Size of control organizations: number of certified operators	GO: 1-5 EU: 9-21
D8iii	Cost of control system	GO: 1-5 EU: 9-21

D9 Control system secondary indicators

Indicator		*Relevance*
D9i	D9 differentiated by regular/ additional visits	GO: 2-5 EU: 9-21
D9ii	D9 differentiated by announced/ unannounced visits	GO: 2-5 EU: 9-21
D9iii	Number of samples taken	GO: 2-5 EU: 9-21
D9iv	Number of samples indicating breach of regulation	GO: 2-5 EU: 9-21
D9v	Number of minor/ major non-compliances/ infringements	GO: 2-5 EU: 9-21
D9vi	Number/scale of fraud cases	GO: 2-5 EU: 9-21

D10 Regulatory framework secondary indicators

Indicator		*Relevance*
D10i	Number of deviations between EU regulations and member state implementation	GO: 3-5 EU: 2, 8-21
D10ii	Number of derogations agreed	GO: 3-5 EU: 2, 8-21
D10iii	Number of collaboration activities between member states	GO: 3-5 EU: 2, 8-21

D11 Regulatory burden secondary indicators

Indicator		*Relevance*
D11i	Pages of forms to be completed	GO: 1, 4, 5, 11, 12 EU: 2, 9-21
D11ii	Time spent by businesses on inspection process	GO: 1, 4, 5, 11, 12 EU: 2, 9-21
D11iii	Operator confidence in new logo/ regulation	GO: 1, 4, 5, 11, 12 EU: 2, 9-21

D12 Research and extension secondary indicators

Indicator		*Relevance*
D12i	Size (staff and financial resources allocated to organic work) of D12 organisations	GO: All EU: 1, 3, 6, 7, 9, 11, 14
D12ii	D12, D12i differentiated by private/ public sector status	GO: All EU: 1, 3, 6, 7, 9, 11, 14
D12iii	Proportion of D12 organisations receiving programme support	GO: All EU: 1, 3, 6, 7, 9, 11, 14
D12iv	Number of researchers/ consultants/ trainers/ other experts specialising in organic farming	GO: All EU: 1, 3, 6, 7, 9, 11, 14
D12v	Numbers of businesses benefiting from research/ training/ advice	GO: All EU: 1, 3, 6, 7, 9, 11, 14
D12vi	Research output/ quality	GO: All EU: 7

E1 Environmental impact secondary indicators

Indicator		*Relevance*
E1i	Number of clauses in new EU regulation directly addressing environmental issues	GO: 4-8 EU: 7-9
E1ii	Biodiversity	GO: 4-8 EU: 7-9
E1iii	Energy balance	GO: 4-8 EU: 7-9
E1iv	Nitrogen, nutrient balances	GO: 4-8 EU: 7-9
E1v	Global warming potential (CO2 equivalent)	GO: 4-8 EU: 7-9
E1vi	Soil conservation	GO: 4-8 EU: 7-9
E1vii	Water conservation	GO: 4-8 EU: 7-9

E2 Animal health and welfare impact secondary indicators

Indicator		*Relevance*
E2i	Number of clauses in new EU regulation directly addressing animal health and welfare issues	GO: 4-6, 9, 12 EU: 7-9
E2ii	Number of veterinary derogations	GO: 4-6, 9, 12 EU: 7-9
E2iii	Longevity of breeding stock	GO: 4-6, 9, 12

		EU: 7-9
E2iv	Number of farms combining organic with increased welfare standards/ animal welfare support	GO: 4-6, 9, 12 EU: 7-9

E3 Social impact secondary indicators

Indicator		*Relevance*
E3i	Number of clauses in new EU regulation directly addressing social issues	GO: 4-6, 10, 12 EU: 6-9
E3ii	Occupational health	GO: 4-6, 10, 12 EU: 6-9
E3iii	Age distribution	GO: 4-6, 10, 12 EU: 6-9
E3iv	Gender balance	GO: 4-6, 10, 12 EU: 6-9
E3v	Educational level/ background	GO: 4-6, 10, 12 EU: 6-9
E3vi	Migrant labour	GO: 4-6, 10, 12 EU: 6-9
E3vii	Number of business combining organic with additional ethical/ fair trade standards/ support	GO: 4-6, 10, 12 EU: 6-9

E4 Economic/rural development impact secondary indicators

Indicator		*Relevance*
E4i	Employment levels	GO: 1-7, 10, 11 EU: 1, 3, 4, 6-9
E4ii	Income levels	GO: 1-7, 10, 11 EU: 1, 3, 4, 6-9
E4iii	Diversity of income sources	GO: 1-7, 10, 11 EU: 1, 3, 4, 6-9
E4iv	Local/regional economic impact	GO: 1-7, 10, 11 EU: 1, 3, 4, 6-9

E5 Food policy impact secondary indicators

Indicator		*Relevance*
E5i	Food output and relative productivity	GO: 1-6, 10-12 EU: 1-7
E5ii	Number and severity of food safety incidents	GO: 1-6, 12 EU: 13, 14
E5iii	Pesticide residue levels	GO: 1-6, 12 EU: 13, 14
E5iv	Food quality assessments	GO: 1-6, 12 EU: All
E5v	Public health impact	GO: 2-6, 12 EU: All
E5vi	Local food system self-reliance (self-sufficiency, sovereignty)	GO: 1-6, 10, 12 EU: All

16 Annex 3

Data tables

Certified in conversion and organic land area

	2001	2002	2003	2004	2005	2006	2004 Baseline	
***be* Belgium**	22452	29118	23966	23728	22994	29308	23728	
***bg* Bulgaria**						4691	2038	2003 (EU CEEOFP D13)
***cz* Czech Republic**			254995	263299	254982		263299	
***dk* Denmark**	168372	174350	165146	154921	134129	138079	154921	
***de* Germany**	632165	696978	734027	767891	807406	825538	767891	
***ee* Estonia**					59741	72886	42573	2003 (EU CEEOFP D13)
***ie* Ireland**	30017	29754	28514	30670	34912		30670	
***gr* Greece**		77120	244457	249508	288737	302264	249508	
***es* Spain**	485079	665055	725254	733182	807569	926390	733182	
***fr* France**	419750	517965	550990	534037	550488	552824	534037	
***it* Italy**	1237640	1168212	1052002	954362	1069462	1148162	954362	
***cy* Cyprus**				867	1698	1978	867	
***lv* Latvia**				26138	118612		26138	
***lt* Lithuania**				36864	64544	96717	36864	
***lu* Luxembourg**	2003	2852	3004	3158			3158	
***hu* Hungary**		103700	116535	133009	128576	122765	133009	
***mt* Malta**				1	14	20	1	
***nl* Netherlands**	35877	42610	41866	48152	48765		48152	
***at* Austria**	278297	299454	326703	343183	360369	361487	343183	
***pl* Poland**			32892	82730			82730	
***pt* Portugal**	73504	81356	120926	215408	233458		215408	
***ro* Romania**						107582	57205	2003 (EU CEEOFP D13)
***si* Slovenia**				22606	23499	26831	22606	
***sk* Slovakia**			49992	51186	90206		51186	
***fi* Finland**	147943	156692	159987	162024	147587	144667	162024	
***se* Sweden**	202827	214120	225785	222100	222738	225385	222100	
***uk* United Kingdom**	679631	741174	695620	690047	608952	604571	690047	
EU15	4415557	4896810	5098247	5132371	5337566	5258675	5132371	
EU27	4415557	5000510	5552661	5749071	6079438	5692145	5850887	

Source: Eurostat supplemented by EUCEEOFP (www.irs.aber.ac.uk/euceeofp)

Number of registered organic operators - producers

<>	2001	2002	2003	2004	2005	2006	2004 Baseline	
***be* Belgium**	697	713	671	659	720	783	659	
***bg* Bulgaria**							54	2003 EUCEEOFP
***cz* Czech Republic**			832	842	835		842	
***dk* Denmark**	3525	3714	3510	3166	3036	2794	3166	
***de* Germany**	14703	15627	16476	16603	17020		16603	
***ee* Estonia**					1013	1173	764	2003 EUCEEOFP
***ie* Ireland**	918	919	786	840	957		840	
***gr* Greece**	6710	5964	6186	9282	15669	23900	9282	
***es* Spain**	15607	16521	17028	16013	15261	16645	16013	
***fr* France**	10364	11288	11359	11059	11402	11640	11059	
***it* Italy**	56199	51118	43928	36955	44860	45115	36955	
***cy* Cyprus**				159			159	
***lv* Latvia**			550	1043	2873	4095	1043	
***lt* Lithuania**			700	1178	1802		1178	
***lu* Luxembourg**	49	53	59	66	74		66	
***hu* Hungary**			1289	1731			1731	
***mt* Malta**				1	6	10	1	
***nl* Netherlands**	1219	1560	1448	1383	1377	1363	1383	
***at* Austria**	18292	18576	19674	20277	20321	20162	20277	
***pl* Poland**				3760			3760	
***pt* Portugal**	938	1093	1145	1379	1577		1379	
***ro* Romania**							207	2003 EUCEEOFP
***si* Slovenia**			1421	1555	1724	1953	1555	
***sk* Slovakia**		80	88	117	195	:	117	
***fi* Finland**	4983	5171	5074	4960	4631	4301	4960	
***se* Sweden**	5268	3665	3562	4726	2531	2380	4726	
***uk* United Kingdom**	4049	4104	4012	4321	4238	4485	4321	
EU15	143521	140086	134918	131689	143674	133568	131689	
EU27	143521	140166	139798	142075	152122	140799	143100	

Source: Eurostat supplemented by EUCEEOFP (www.irs.aber.ac.uk/euceeofp)

Number of new producers during year

<>	2001	2002	2003	2004	2005	2006	2004 Baseline	
be **Belgium**	139	105	62	76	80	132	76	
bg **Bulgaria**								no data
cz **Czech Republic**				21	48		21	
dk **Denmark**	276	241	62	86	110	103	86	
de **Germany**	2518	1701	1811	1285	1275		1285	
ee **Estonia**						194		no data
ie **Ireland**				101	139		101	
gr **Greece**		2832	897	3389	6958	10464	3389	
es **Spain**						2132		no data
fr **France**		1475	716				716	2003
it **Italy**	8105		4102	5424	11376	3815	5424	
cy **Cyprus**								no data
lv **Latvia**				539	1842	1267	539	
lt **Lithuania**				483			483	
lu **Luxembourg (Grand-Duché)**	19	5	8	7	13		7	
hu **Hungary**								no data
mt **Malta**				1	5	4	1	
nl **Netherlands**				53	51	16	53	
at **Austria**				937	355		937	
pl **Poland**								no data
pt **Portugal**	303	155	52	234	198		234	
ro **Romania**								no data
si **Slovenia**				222	384	292	222	
sk **Slovakia**			23	42	110		42	
fi **Finland**	176	238	183		118	137	183	2003
se **Sweden**	280	470	178	72	88	122	72	
uk **United Kingdom**					424	888	424	2005
EU15	11816	7222	8071	11664	21185	17809	12987	
EU27	11816	7222	8094	12972	23574	19566	14295	
EU15 percent of total	8.2	5.2	6.0	8.9	14.7	13.3	9.9	
EU27 percent of total	8.2	5.2	5.8	9.1	15.5	13.9	10.0	

Source: Eurostat supplemented by EUCEEOFP (www.irs.aber.ac.uk/euceeofp)

Number of producers withdrawing during year

<>	2001	2002	2003	2004	2005	2006	2004 Baseline	
***be* Belgium**	73	80	103	54	19	52	54	
***bg* Bulgaria**								no data
***cz* Czech Republic**				11	55		11	
***dk* Denmark**	217	52	266	430	240	345	430	
***de* Germany**	555	778	962	1158	858		1158	
***ee* Estonia**						34		no data
***ie* Ireland**				47	22		47	
***gr* Greece**		3578	675	1148	1469	2233	1148	
***es* Spain**						748		no data
***fr* France**								no data
***it* Italy**	4702	5081	12711	12713	3471	3560	12713	
***cy* Cyprus**								no data
***lv* Latvia**				46	12	45	46	
***lt* Lithuania**				0			0	
***lu* Luxembourg**	1	1	2	0	5		0	
***hu* Hungary**								no data
***mt* Malta**				0	0	0	0	
***nl* Netherlands**				118	57	30	118	
***at* Austria**				350	311		350	
***pl* Poland**								no data
***pt* Portugal**	62	94	0	0	0		0	
***ro* Romania**								no data
***si* Slovenia**				53	215	63	53	
***sk* Slovakia**			10	13	31		13	
***fi* Finland**	418	150	280		642	467	280	2003
***se* Sweden**	216	405	281	313	576	273	313	
***uk* United Kingdom**					460	641	460	2005
EU15	6244	10219	15280	16331	8130	8349	17071	
EU27	6244	10219	15290	16454	8443	8491	17194	
EU15 percent of total	4.4	7.3	11.3	12.4	5.7	6.3	13.0	NB high due to Italy
EU27 percent of total	4.4	7.3	10.9	11.6	5.6	6.0	12.0	

Source: Eurostat supplemented by EUCEEOFP (www.irs.aber.ac.uk/euceeofp)

Domestic market size (retail sales value) and per capita expenditure

	Turnover domestic organic food market (M€)				*Population (million)*	*Per capita consumer expenditure for organic food (€)*			
	2004	**2005**	**2006**		**2004**	**2004**	**2005**	**2006**	
***be* Belgium**			245		10.7			23	
***bg* Bulgaria**									
***cz* Czech Republic**	9	12	26		10.2	1	1	3	
***dk* Denmark**	274	307	454		5.4	51	57	84	
***de* Germany**	3500	3900	4600		82.5	42	47	56	
***ee* Estonia**									
***ie* Ireland**		66	66	(2005)	4.0		17	17	(2005)
***gr* Greece**	22		50		11.0	2		5	
***es* Spain**	250	300	70	(excluding exports)	42.2	6	7	2	
***fr* France**	1900	2200	1600		59.9	32	37	27	
***it* Italy**	2400	2400	1900		57.8	42	42	33	
***cy* Cyprus**									
***lv* Latvia**									
***lt* Lithuania**									
***lu* Luxembourg**									
***hu* Hungary**	3	6	7		10.1	0	1	1	
***mt* Malta**									
***nl* Netherlands**	419	467	460		16.2	26	29	28	
***at* Austria**	280	450	530		8.1	35	56	65	
***pl* Poland**	1.6	30	100		38.2	0	1	3	
***pt* Portugal**		50	50		10.4		5	5	
***ro* Romania**									
***si* Slovenia**									
***sk* Slovakia**									
***fi* Finland**		80	60		5.2	0	15	12	
***se* Sweden**	421	433	564		9.0	47	48	63	
***uk* United Kingdom**	1815	2333	2814		59.5	31	39	47	
EU15	11281	12986	13463		381.9	30	34	35	
EU27	11295	13034	13596		440.4	26	30	31	
***ch* Switzerland**	780	763	776		7.4	105	103	105	

Source: IFOAM World of Organic Agriculture annual reports

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NB: these data suffer from high levels of uncertainty and lack of harmonisation, in particular concerning treatment of exports. Trends in particular should be treated with caution as changes may reflect methodological changes.

Organic farming area payments in 2003/4

	In conversion		Continuing OF		Average
	Arable	Grass	Arable	Grass	payment
AT	327	251	327	251	291
(BE)	500-600	425-450	240-350	55-275	248
BG	na	na	Na	na	na
CH	526	131	526	131	
CZ	110	34	110	34	43
(DE)	200-300	200-300	150-190	150-190	182
DK	271	271	117	117	-78
EE	97	74	97	74	85
ES	92	117	92	117	162
FI	147	103	147	103	119
FR	366	160	-183	-80	203
GR	335	-100	335	-100	404
HU	178	59	127	59	nd
IE	181	181	91	91	97
(IT)	150-200	100-200	100-200	100-200	337
LT	416	118	416	118	nd
LU	200	200	150	150	172
(LV)	139	139	82	81	nd
NL	-148	-136	(-)	(-)	227
PL	149	72	131	57	104
(PT)	228	210	190	175	141
RO	na	na	Na	na	na
SE	151	58	151	58	135
SI	460	230	460	230	243
SK	149	99	75	50	nd
(UK)	261	203	44	33	36

Source: Stolze and Lampkin, 2006 based on EUCEEOFP D2 and D13 reports

Expenditure on organic farming area payments in 2003

	Total organic area		Total OF support (1257/99)			
	Thousand hectares	Share % UAA	kha (% of cert. OF)	% of cert. organic ha	Million Euro	Share % AE
AT	328.8	10.1	295.2	90	85.9	13.9
BE	24.2	1.7	18.9	78	4.7	16.9
BG	2	0.04	na	na	na	na
CZ	255	6	214.2	84	7.3	20.3
DE	734	4.3	536.8	73	97.7	16
DK	165.1	6.2	110.5	67	8.7	45.5
EE	46	5.9	37.5	82	3.2	15.5
ES	725.3	2.9	158.2	22	25.7	19.1
FI	160	7.1	142.5	89	16.9	5.9
FR	551	2	207.8	38	42.2	7.7
GR	244.5	6.2	19	8	7.7	30.1
IE	28.5	0.7	17.7	62	1.7	1
IT	1052	8	297.9	28	100.3	33.5
HU	113.8	1.9	58	51	4.2	25.2
LT	23.3	0.6	22.1	95	0.9	na
LU	3	2.3	2.3	77	0.4	3.3
LV	24.5	1	nd	nd	0.7	na
NL	41.9	2.1	11	26	2.5	16.3
PL	49.9	0.12	31	62	1.3	na
PT	120.7	3.2	27.9	23	3.9	5.7
RO	57.2	0.4	na	na	na	na
SE	225.8	14.8	407	180	54.8	23.4
SI	20	3.9	18.9	95	2.9	29.3
SK	54.5	2.5	37.8	69	0.5	nd
UK	695.6	4.1	249.9	36	9	5
Total	5746.6	3.3	2922.1	50.8	483.1	13.5

Source: Stolze and Lampkin, 2006 based on EUCEEOFP D2 and D13 reports

Member State		Number of contracts		number of hectares		Amount of public expenditure committed (1 000 EUR)		Average premium per HA (2005)
		TOTAL	of which new	under contract	of which new	Total	of which EAGGF	
1		2	3	4	5	6	7	8
Belgique/België	organic farming	810	183	23 056	4 410	5 601	2 959	243
	TOTAL	35 746	12 915	23 056	104 401	38 243	21 093	133
Česká republika	organic farming	1 052	59	223 736	3 237	10 250	8 183	46
	TOTAL	18 011	1 810	1 168 357	49 323	110 686	88 377	95
Danmark	organic farming	4 326	2 147	153 800	76 700	12 598	6 299	82
	TOTAL	13 985	4 769	404 630	100 810	33 705	16 853	83
Deutschland	organic farming	11 664	1 729	698 998	73 552	123 510	76 037	177
	TOTAL	227 946	18 988	5 686 868	349 085	639 657	385 994	112
Eesti	organic farming	914	215	49 272	9 354	4 288	3 429	87
	TOTAL	6 602	749	491 846	31 809	22 084	17 667	45
Éire/Ireland	organic farming	0	0	0	0	0	0	0
	TOTAL	46 559	14 800	1 695 000	547 000	251 418	188 563	148
Elláda	organic farming	8 758	6 128	62 734	52 624	43 788	21 895	698
	TOTAL	12 941	7 520	261 746	150 003	82 546	41 275	315
España	organic farming	11 913	2 149	303 431	71 539	42 538	29 734	140
	TOTAL	108 239	35 538	3 016 109	717 260	199 856	138 681	66
France	organic farming	7 152	2 514	234 138	22 977	39 232	20 496	168
	TOTAL	250 557	357 857	7 806 861	1 492 113	433 025	229 505	55
Italia	organic farming	24 353	6 639	596 638	154 138	135 028	82 462	226
	TOTAL	95 495	13 031	1 958 984	246 092	344 492	189 596	176
Kypros/Kibris	organic farming	0	110	0	454	298	149	0
	TOTAL	0	4 861	6 077	6 077	374	187	62
Latvija	organic farming	2 836	1 840	99 270	57 836	12 186	9 749	123
	TOTAL	5 420	3 452	118 942	68 089	14 757	11 806	124
Lietuva	organic farming	698	698	20 008	20 008	5 579	4 463	279
	TOTAL	698	698	20 008	20 008	5 579	4 463	279
Luxembourg	organic farming	50	3	2 721	216	467	233	172
	TOTAL	3 862	360	147 514	4 193	12 703	6 352	86
Magyarország	organic farming	733	733	NA	NA	7 255	5 804	0
	TOTAL	23 667	23 667	NA	NA	173 542	138 834	0
Malta	organic farming	1	0	2	0	1	1	500
	TOTAL	329	60	3	0	278	222	92 667
Nederland	organic farming	611	0	17 764	0	2 128	1 285	120
	TOTAL	10 656	3 619	179 778	132 803	40 101	14 304	223
Österreich	organic farming	28 232	1 345	334 977	24 332	96 532	46 422	288
	TOTAL	634 341	266	6 192 464	75 770	650 978	321 109	105
Polska	organic farming	3 548	3 548	69 742	69 742	9 425	7 536	135
	TOTAL	3 548	3 548	143 920	69 743	9 426	7 536	65
Portugal	organic farming	1 076	15	62 803	155	8 879	6 667	141
	TOTAL	86 013	1 122	692 984	5 543	101 912	77 325	147
Slovenija	organic farming	732	0	9 228	153	2 333	1 820	253
	TOTAL	29 993	0	203 648	27 818	28 060	22 298	138
Slovensko	organic farming	175	175	78 627	78 627	7 971	6 705	101
	TOTAL	816	816	352 670	352 580	28 484	23 888	81
Suomi/Finland	organic farming	4 014	1 726	154 638	82 230	17 314	9 136	112
	TOTAL	81 658	4 664	2 228 864	125 265	290 609	146 872	130
Sverige	organic farming	21 217	2 712	508 500	51 998	62 497	31 249	123
	TOTAL	136 041	10 554	3 063 249	132 739	252 827	134 936	83
United Kingdom (Wales only)	organic farming	695	30	62 191	3 000	3 338	1 227	54
	TOTAL	4 697	50	335 724	4 126	43 487	18 829	130
TOTAL	organic farming TOTAL	135 560 1 837 820	34 698 525 714	3 823 829 36 463 934	857 282 4 812 650	653 036 3 808 829	383 940 2 246 565	171 104

2004 baseline certified (organic and in-conversion) crop areas

Crop areas (ha)	be Belgium	bg Bulgaria (2003 EUCEEOFP)	cz Czech Republic	dk Denmark	de Germany (2004 EUCEEOFP)	ee Estonia (2003 EUCEEOFP)	ie Ireland	gr Greece	es Spain (includes woodland)	fr France	it Italy	cy Cyprus	lv Latvia	lt Lithuania	lu Luxembourg	hu Hungary	mt Malta	nl Netherlands	at Austria	pl Poland	pt Portugal	ro Romania (2003 EUCEEOFP)	si Slovenia	sk Slovakia	fi Finland (2004 EUCEEOFP)	se Sweden (2004 EUCEEOFP)	uk United Kingdom	EU15 total	EU27 total
c_00 Total crops	23728	2038	263299	154921	767891	42573	30670	249508	733182	534037	954362	867	26138	36864	3158	133009	1	48152	343183	82730	215408	57205	22606	51186	162024	222100	690047	5132371	5850887
c_01_07 Total arable land crops	8025	863	20842	132386	375445	16118	1019	18299	337366	266849	489016	403	9471	20473	1309	65669	0	9482	107184	21742	91134	29277	1591	15111	84745	167372	90078	2179709	2381269
c_01 Cereals, incl. rice	2396	58	13535	50563	175000	5288	785	12582	91555	89027	191311	145	4970	13888	570	27716	0	4252	58500		62345	12305	792	7762	57149	59866	44288	900189	986648
c_02 Dried pulses	118	0	463	5821	31500	279		192		12532	10396	2	34	3747	87	1356	0	16	11244			2457	0	992	1866	8387	6365	88524	97854
c_03 Root crops		0			7600	320																180			497	1175		9272	9772
c_04 Industrial crops (total)	22	351	833	1648	8145	124		2929			14255		335	228	11	10945	0	0				11310	91	1034	3273	2784	1322	34389	59640
c_05 Fresh vegetables, melons, strawberries (total)	429	119	202	963	8400	106	234	261	3956	7711	13750	11	71	174	17	1189	0	4776	1016	719	631	200	82	447	479	532	5089	48244	51564
c_06 Green fodder from arable land (total)	4701		4074	65914	104000	8200		37		113355	237431	203	3343	65	547	20405	0		36424		26575	786	621	4588	62244	76656	32266	760150	802435
c_07 Other arable land crops	46		1404	3669	1800			995	180329	44224	16629	42	37	59	57	698	0	438			1583	2039	0		1974	3015		254759	259038
c_08 Permanent grassland (pastures and meadows)	15125	105	235379	18998	386000	24287	26350	195146	239936	221272	249096	29	15230	14772	1618	60267	0	31910	210934	38860	95742	27364	20908	35646	547	38936	574622	2306232	2779079
c_09_13 Total permanent crops	355	660	680	351	8000	485	1910	33040	110291	25054	191606	435	665	983	51	2554	1	483	3401	1735	21696	564	389	304	647	240	6391	403516	412971
c_09 Fruit (excl. citrus fruit, grapes, olives) and berries	355	469	632	351	5000	480		1758	3734	8626	38614	42	665	983	43	1975	0	483	1744	1735		311	334	225	647	240	1554	63149	71000
c_10 Citrus fruit				0				2168	1587		15043	6		0	0	0	0	0					0				0	18798	18804
c_11 Grapes			48	0	2500			3303	14928	16428	31170	59		0	6	579	1	0	1657		1002	33	49	79			57	71051	71899
c_12 Olives				0				25811	90042		88963	328		0	0	0	0	0			20694		4				0	225510	225842
c_13 Other permanent crops		191	0		500	5	1910	0			17816			0	2		0	0				220	2				4780	25008	25426
c_14 Unutilized land (fallow land, not part of crop rotation)	8	399	3105	2085		1683		0			23061		40	188	159	4440	0	6277										15441	47031	56886
c_15 Fallow land as part of crop rotation (incl. green manure)	313	335	331	3808	39000	1801		1303	61526		5244		681	2312	20	3360	0						5	288	19507	14957	748	146426	155539

Source: Eurostat, www.zmp.de; www.organic-europe.net; www.irs.aber.ac.uk/euceeofp/statistics

2004 baseline certified (organic and in-conversion) livestock numbers

	be Belgium	*bg* Bulgaria (2003 EUCEEOFP)	*cz* Czech Republic	*dk* Denmark	*de* Germany (2004 EUCEEOFP)	*ee* Estonia (2003 EUCEEOFP)	*ie* Ireland (2005 EUCEEOFP)	*gr* Greece	*es* Spain	*fr* France	*it* Italy	*cy* Cyprus (no data)	*lv* Latvia	*lt* Lithuania	*lu* Luxembourg (no data)	*hu* Hungary	*mt* Malta (no data)	*nl* Netherlands	*at* Austria	*pl* Poland (no data)	*pt* Portugal	*ro* Romania (2003 EUCEEOFP)	*si* Slovenia	*sk* Slovakia	*fi* Finland	*se* Sweden	*uk* United Kingdom	*EU15 total*	*EU27 total*
***L_1* Bovine animals (total)**	32190	23	100304	125200	511500	7889	21950	14776	53295	125031	215022		10037	6616		8747		34841	331441		54351	9849	13098	12761	18029	91515	200959	1830100	1999424
***L_131* Dairy cows**	7993		2865	53115			750	480	2278	62489	38284		3447	3048				15629	86896				1004	1550	5052	21892	83253	378111	390025
***L_2* Pigs (total)**	8359		2187	58361	121520	448	700	27792	8455	76000	26508		2078	83		769		29268	49084		9695	1333	1235	31	2554	22207	55199	495702	503866
***L_3* Sheep (total)**	7086		31631	11737	162000	5717	38000	133619	143866	127974	499978		1970	3789		2137		10115	79194		114664	3200	17946	27082	4296	38193	687863	2058585	2152057
***L_4* Goats (total)**	3505	20	2620		25000	345	625	215291	17488	19754	56815		662	321		296		21473			4769		3465	660	37	664	513	365934	374323
***L_5* Poultry (total)**	801080		1715	980797	1855000	3388	73000	74160	89739	5973718	2152295		6034	890		613		453244	848337		47158	2700	14218	49	74485	391971	2662347	16477331	16506938
***L_51* Broilers**	682525		0	183265				39693	36032	4492008	1607714		340	0				0					2125	0	0	45915	1222355	8309507	8311972
***L_52* Laying hens**	116379		1174	777037				34422	53707	1481710	503639		4222	861				405123					10173	45	74468	345998	1337369	5129852	5146327
***L_6* Equidae**	334			735				0			4773		352	190		282					181	705		62	13			6036	7627
***L_7* Rabbits**																												0	0
***L_8* Bees (in number of hives)**		12219		0		323		3719	20740		67713		3033	2133		13374					947		2072	405	1264	1480		95863	129422
***L_9* Other livestock**	234		3000	974				58	1664		8214												2669	0	0	521	1185	12850	18519

Source: Eurostat, www.zmp.de; www.organic-europe.net; www.irs.aber.ac.uk/euceeofp/statistics

2004 baseline number of registered operators processing and importing products issued from organic farming

	be Belgium	*bg* Bulgaria	*cz* Czech Republic (2005)	*dk* Denmark (2005)	*de* Germany	*ee* Estonia (2005)	*ie* Ireland	*gr* Greece	*es* Spain	*fr* France	*it* Italy	*cy* Cyprus	*lv* Latvia	*lt* Lithuania	*lu* Luxembourg	*hu* Hungary	*mt* Malta (2005)	*nl* Netherlands	*at* Austria (2005)	*pl* Poland	*pt* Portugal	*ro* Romania	*si* Slovenia	*sk* Slovakia	*fi* Finland	*se* Sweden	*uk* United Kingdom (2005)	*EU15 total*	*EU27 total*
Processors																													
da151 **Meat, meat products**	53		15	66		1		35	143	263	197			0	4		0	113	318				976	0			461	1653	2645
da153 **Fruit and vegetables**	86		21	28		3		115	459		956			0	6		0	169	145				1470	1			590	2554	4049
da154 **Veg./animal oils/fats**	8		0	6		1		233	221	33	832			0	1		0	38					1	0			17	1389	1391
da155 **Dairy products**	50		13	49		2		24	52	170	236			4	2		0	92	117				245	4			170	962	1230
da156 **Grain mill products, starches and starch products**	46		6	18		3		23	119		323			5	4		0	153	71				169	3			197	954	1140
da157 **Prepared animal feeds**	7		0	7		0		14		74	71			2	3		0	43	56				0	0			85	360	362
da158 **Other food products**	386		63	53		0		118	556		1206			13	18		0						171	12			1682	4019	4278
da159 **Beverages**	19		7	4		0		125			475			0	1		0	30					160	3			102	756	926
Total	538		131	641	6480	13	116	759	1635	4874	6081		7	24	38	281	4	986	1056	55	81		19	14	420	467	1841	26013	26561
Importers																													
da151 **Meat, meat products**			0	1		0		0			0				0	0	0	8	172				0	0			6	187	187
da153 **Fruit and vegetables**	2		0	0		0		0			46				0	0	0	68	46				0	0			101	263	263
da154 **Veg./animal oils/fats**			0	0		0		0			8				0	0	0	22					0	0			18	48	48
da155 **Dairy products**			0	8		0		1			2				0	0	0	10					0	0			4	25	25
da156 **Grain mill products, starches and starch products**	1		1	0		0		0			28				0	0	0	68					0	0			32	129	130
da157 **Prepared animal feeds**			0	1		0		1			1				0	0	0	4					1	0			1	8	9
da158 **Other food products**	23		6	0		0		1			50				0	0	0						0	0			457	531	537
da159 **Beverages**			0	0		0		0			0				0	0	0	15					0	0			16	31	31
Total	64		7	108	513	0	6	10	40	149	207		0	0	1	15	0	176	138		1		6	0	14	213	252	1892	1920

Source: Eurostat

Surveillance report statistics for 2005

Country	System	No of operators registered					No of operators submitted to regular annual inspection visits				No of operators submitted to additional visits			
		producers *	processors **	importers ***	others	TOTAL	producers *	processors **	importers ***	others	producers *	processors **	importers ***	others
BE	A	720	546	69	30	1365								
CZ	C	829	125	7	307	1268	829	125	7	307	113		37	
DK	B	3036	443	89	278	3846								
DE	A	16655	7245	542	0	24442								
EE	B	1014	12			1026	1014	12			200			
EL	A	15444	979	9		16432								
ES	C	16718	1779	52	3	18552								
FR	A	11461	5039	105	0	16605								
IE	A	980	142	14	0	1136	980	142	14	0	96	8	1	0
IT	A	44741	4537	185	404	49867	44228	4544	181	482	6708	1961	123	82
CY	A	323	37	1	3	364	323	37	1	3	15	4	1	0
LV	A	2873	10	0		2883								
LT	B	1828	26	0		1854	1802	26			108	2		
LU	C	78	36			114								
HU	A	1551	301	7	120	1979	1551	301	7	120	362	7	0	2
MT	B	6	4			10	6	4			6	4		
NL	B	1468	677	189	13	2347	1423	623	174	12	45	54	15	1
AT	A	20061	1149	78		21288								
PL	C	7182	99			7281								
PT	A	1613	114	0		1727								
SI	A	1718	24	5	8	1755	1718	24	5	8	155	12	2	3
SK	A	196	23	0	3	222	194	16	0	9	7	13	0	1
FI	B	4334	348	5	111	4798	4795				369			
SE	A	3122	431	159		3712								
UK	A	4094	1598	281		5973								
NO	A	2496	331	29		2856								

Source: http://ec.europa.eu/agriculture/qual/organic/control/report_art15_en.pdf

Country	number of visits														
	announced					unannounced					Total no. of visits				
	producers *	processors **	importers ***	others	TOTAL	producers *	processors **	importers ***	others	TOTAL	producers *	processors **	importers ***	others	TOTAL
BE	734	545	74	35	1388	774	360	44	16	1194	1508	905	118	51	2582
CZ	1005		303		1308	59		12		71	1064		315		1379
DK												4429			4429
DE	17226	7408	554	0	25188	2126	952	70	0	3148	19352	8360	624	0	28336
EE	1190	5			1195	51	12			63	1241	17			1258
EL	13589	856	10	14452	28907	863	176	4		1043	14452	1029	14		15495
ES	16077	1506	39	7	17629	2971	654	24	0	3649	19048	2160	63	7	21278
FR	11276	4988	131	0	16395	5528	2720	139	0	8387	16804	7708	270	0	24782
IE	980	142	14	0	1136	96	8	1	0	105	1076	150	15	0	1241
IT	49212	6362	271	613	56458	4644	1043	71	72	5830	52962	7390	315	682	61349
CY	323	37	1	3	364	15	4	1	0	20	338	41	2	3	384
LV	2873	16	0		2889	78	6	0		84	2951	22	0		2973
LT	1808	26			1834	102	2			104	1910	28			1938
LU	78	42			120	10	8			18	88	50			138
HU	1718	304	7	308	2337	9	2	0	0	11	1727	306	7	308	2348
MT	7	5			12	5	3			8	12	8			20
NL	1947	1053	298	27	3325	1058	370	77	6	1511	2005	1423	375	33	3836
AT	6858	1310	85		8253	15006	254	7		15267	21864	1576	92		23532
PL	7223	102			7325	178	81			259	7401	183			7584
PT	1580	119	0		1699	476	37	0		513	2056	156	0		2212
SI	47	25	5	8	85	1829	6	2	3	1840	1876	31	7	11	1925
SK	353	34	0	3	390		8		8	16	353	42	0	11	406
FI		4622			4622		542			542					5164
SE	2950	369	97		3416	2047	17	4		2068	4997	386	101		5484
UK	3902	1522	277		5701	82	32	4		118	3996	1529	281		5806
NO	2496	330	30		2856	20	9	1		30	2516	339	31		2886

Country	number of samples									number of infringements found								
	taken for analysis					indicating breach of regulation				irregularities				manifest infringements				
	producers *	processors **	importers ***	Others	TOTAL	producers *	processors **	importers ***	Others	producers *	processors **	importers ***	Others	producers *	processors **	importers ***	Others	TOTAL
BE	819				819									248	570	63	30	911
CZ	15	5			20	2	2			11	13	2		6				32
DK	198				198	1				49	1			17	3		1	71
DE	154				154					17526								17526
EE	20				20	5				97				13				110
EL	1538				1538					1129								1129
ES	4288				4288					1384								1384
FR	2154				2154					7425								7425
IE	4	2	1	0	7	2	0	0	0	6	1	0	0	4	1	0	0	12
IT	3299	1389	116	21	4825	367	146	4	3	3857	538	48	88	1653	152	1	24	6361
CY	11	0	0	0	11	0	0	0	0	20	0	0	0	1	0	0	0	21
LV	5				5					42								42
LT	12				12	0				1	2			25				28
LU	9				9					5								5
HU	18	10	0	0	28	2	0	0	0	895	107	0	33	256	31	0	10	1332
MT	0	0			0	0	0				7	3						10
NL	146	113			259	3	2				3			11	1			15
AT	844				844									1130				1130
PL	104				104					2533								2533
PT	72				72					1555								1555
SI	84	5	4	5	98	12				2393	15		1	50	1			2460
SK	31	6			37					121				1				122
FI	37	21	0	0	58	0	1	0		1445				358				1803
SE					0					508								508
UK	169				169					2452								2452
NO	0				0					184								184

Country	number of sanctions applied								
	on lot or production run				on the operator				
	producers *	processors **	importers ***	Others	producers *	processors **	importers ***	Others	TOTAL
BE	9	7	1	0	2	0	0	0	19
CZ		8			14	1			23
DK					66	4		1	71
DE	142								142
EE					7				7
EL	1111								1111
ES	512								512
FR	88								88
IE	6	1	0	0	4	1	0	0	12
IT	1095	325	0	4	3260	371	2	15	5072
CY	1	0	0	0	1	0	0	0	2
LV	2								2
LT	1	2			25				28
LU									0
HU	256	31	0	10	0	0	0	0	297
MT									0
NL	1	2			11	1			15
AT	667								667
PL	2533								2533
PT	380								380
SI	1047	7		1	34	1			1090
SK					1				1
FI	354	1			3				358
SE									0
UK	45								45
NO	4								4