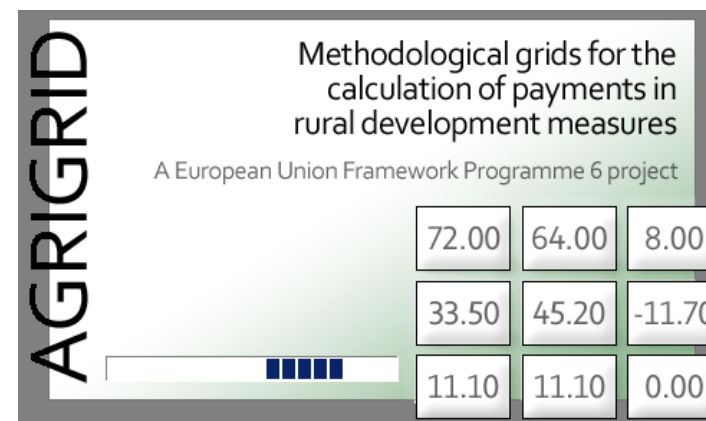




# Methodological grids for payment calculations in rural development measures in the EU

## The AGRIGRID project

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## Outline

- \* Background
- \* Objectives
- \* Review of payment calculations
- \* Developing the grids
- \* The software tool

## Background (1/2)

- Framework given by Rural Development Regulation:
  - Requirement to use standard costs and standard assumptions
- Impact of data availability and higher administration costs
- Challenge to establish a balance between a targeted measure and the extent of transaction and administration costs

## Background (2/2)

- Payment levels form an important criteria for the acceptance of rural development measures
- Large variations in payment calculations
- Challenge to develop a harmonized and consistent methodology for payment calculation across the EU, but at the same time incorporating specific regional circumstances

## Objectives and scope (1/3)

### Objective 1:

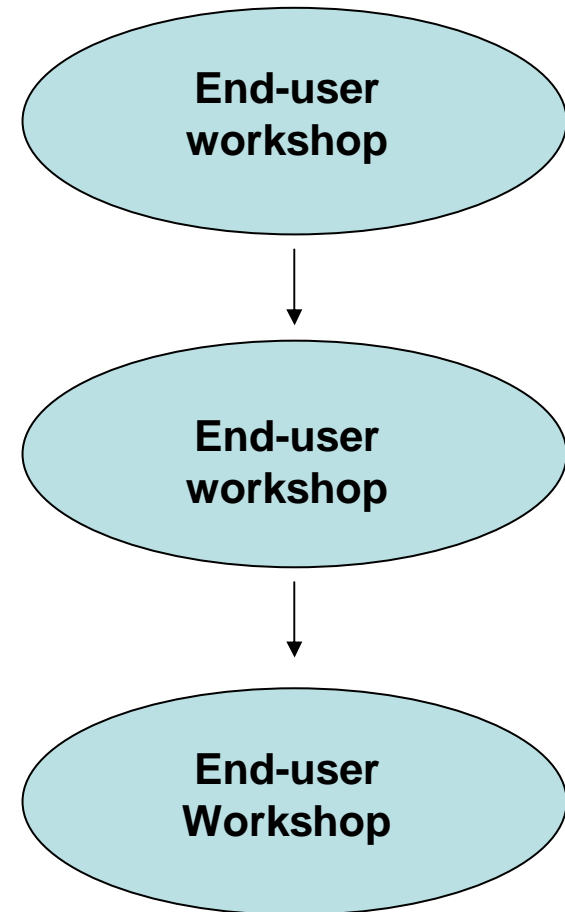
To carry out a comparative analysis of the methods applied by the member states for calculating the payments in their current rural development programmes.

### Objective 2:

To develop methodological grids that are based on objective and quantifiable criteria, which are applicable EU-wide and differentiated by the nature of the measure.

### Objective 3:

To develop an appropriate software for applying these grids in the individual measures.



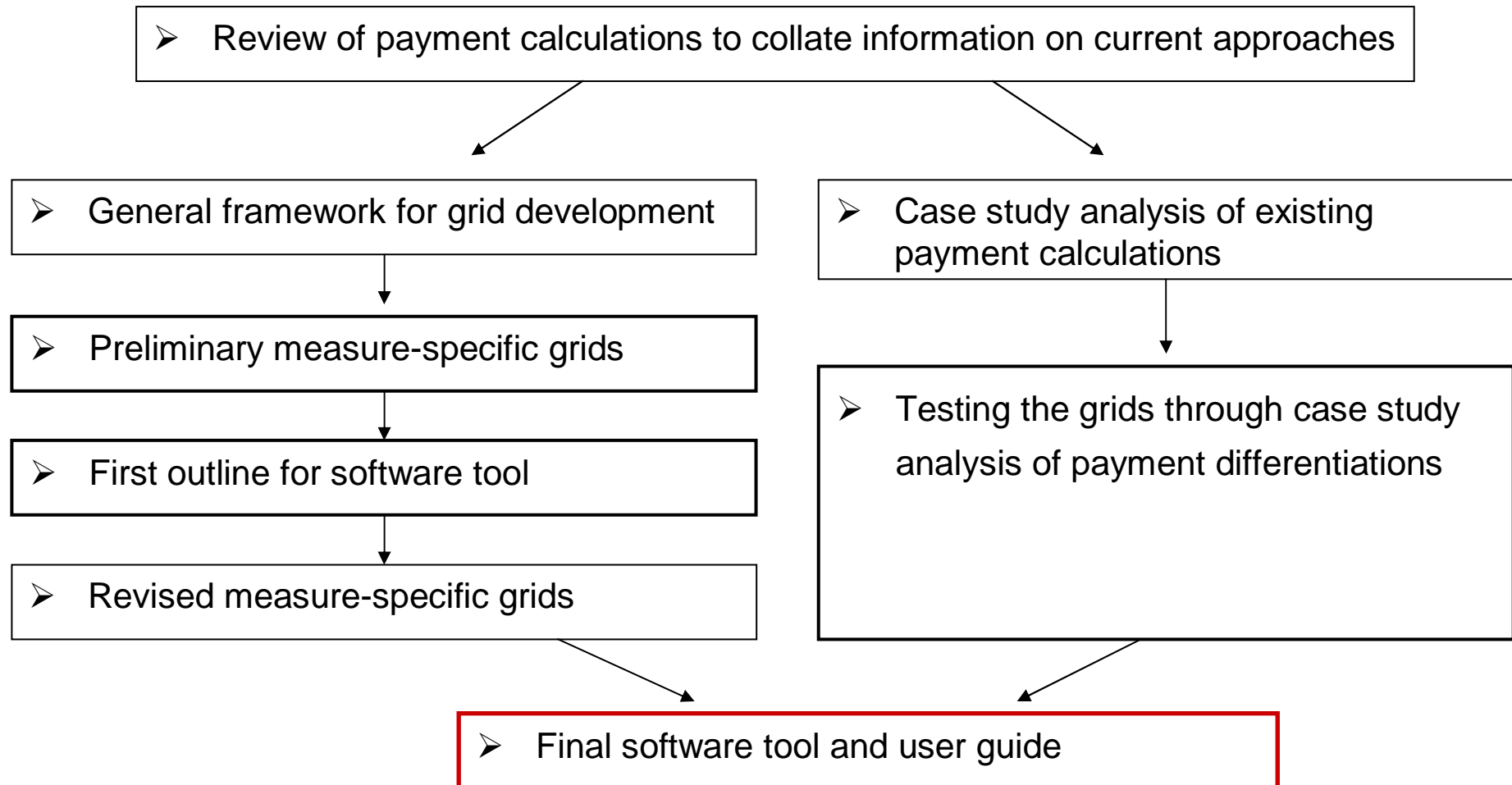
## Objectives and scope (2/3)

### Examined rural development measures

RD measure	Measure code
Meeting standards	131
Natural handicap payments in mountain areas	211
Natural handicap payments in other than mountain areas	212
Natura 2000 payments on agricultural land	213
Agri-environment payments	214
Animal welfare payments	215
First afforestation of agriculture land	221
First afforestation of agroforestry systems	222
First afforestation of non-agricultural land	223
Natura 2000 payments on forestry land	224
Forest-environment payments	225

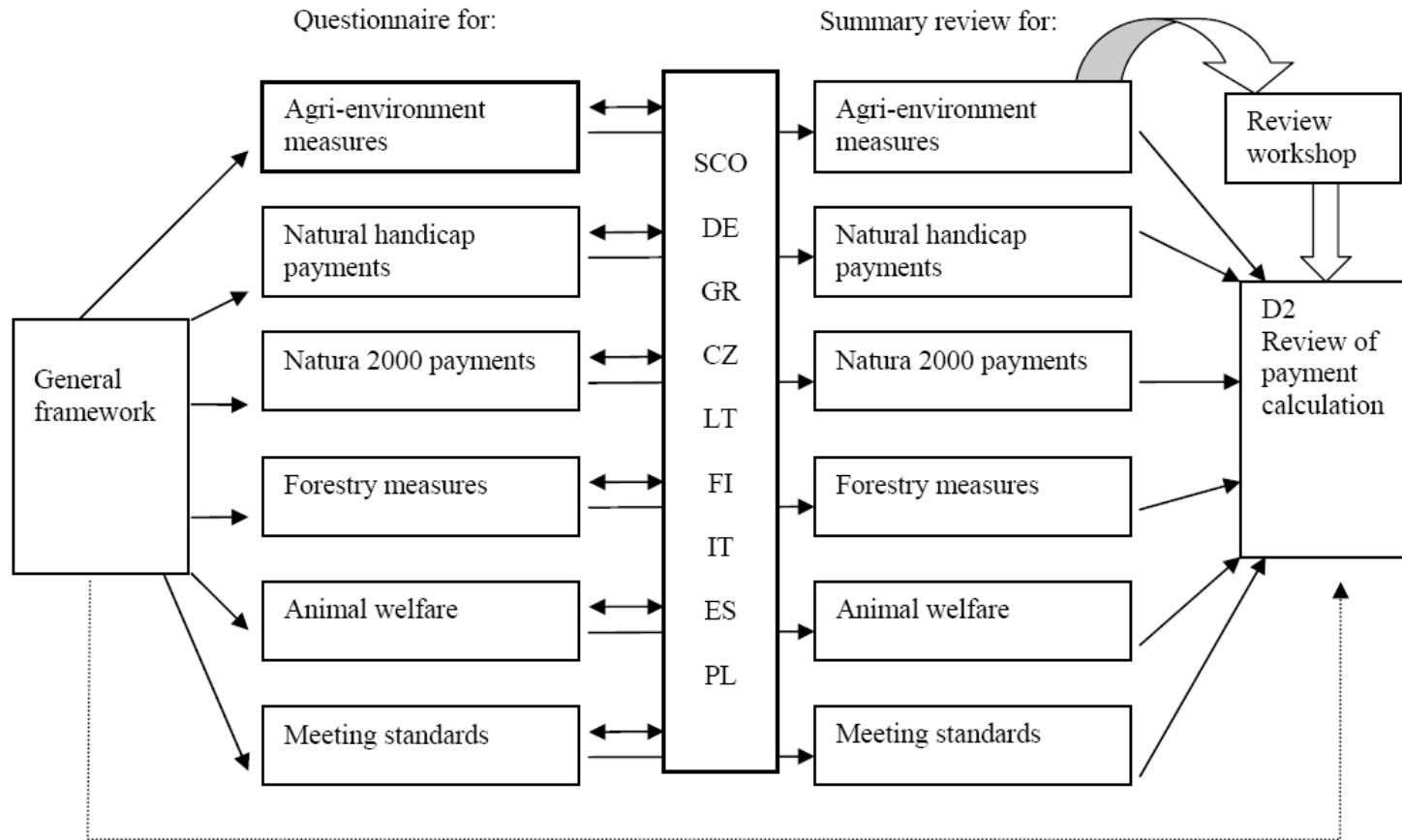
## Objectives and scope (3/3)

### Workplan



# Review (1/3)

## Process of data collection



## Review (3/3)

### Some measure-specific key aspects from the review:

- Stakeholder interests affect payment design and calculation through consultation process (AEM, forestry measures)
- Fixed costs can not be considered in payment calculation (AEM, AWM)
- Fix Commission guidelines which are, at least in some cases, not effective (AEM, forestry measures)
- Difficulties in payment calculations hinder innovation in application of new measures (AEM, Natura 2000 payments)
- Definition and calculation of baseline requirements (AEM, LFA, AWM)
- Changes in the policy and economic environment are not considered in payment calculations (AEM, LFA)
- Uncertainty in relation to transaction costs (AEM, AWM).

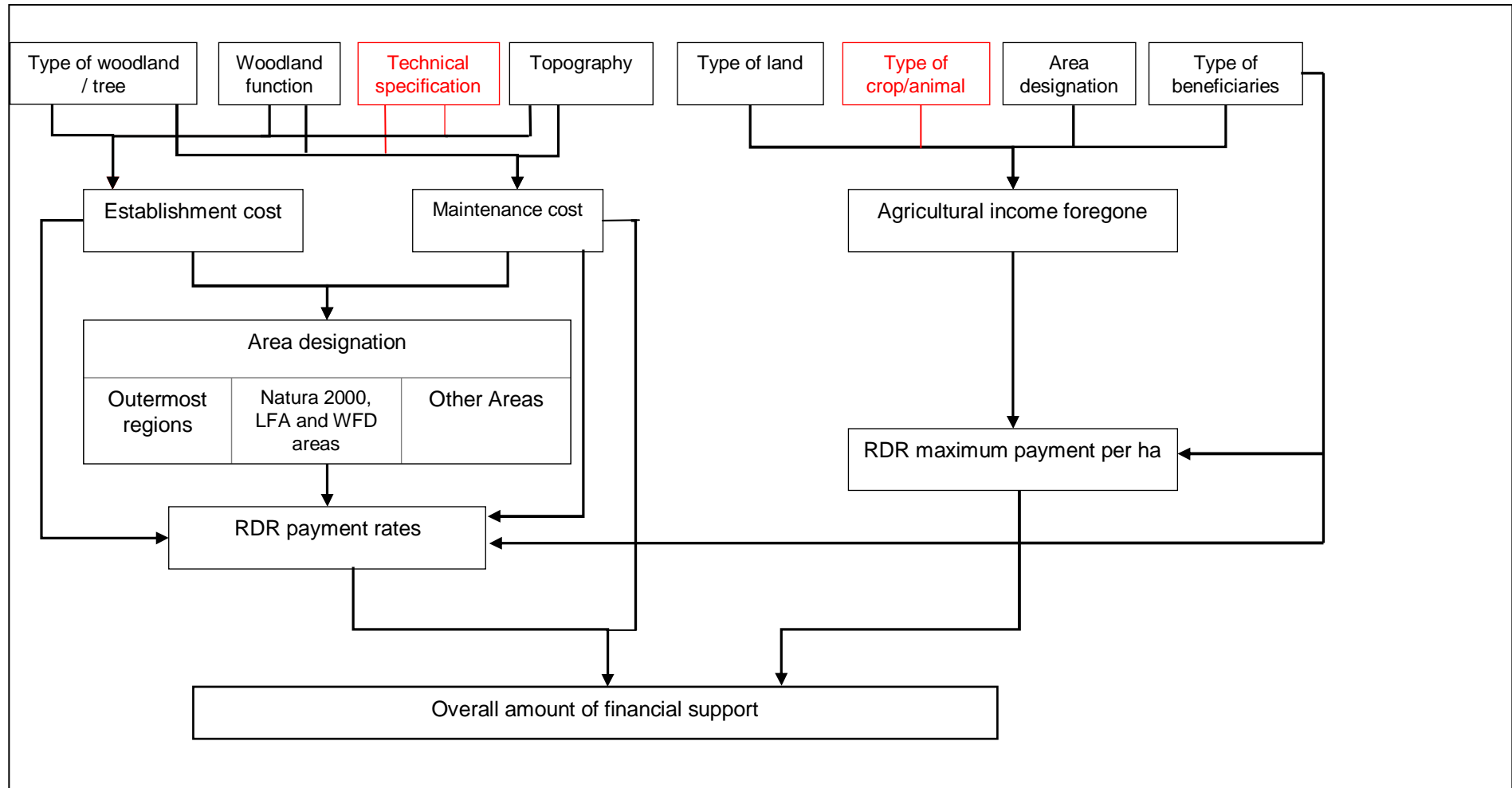
## Review (3/3)

### Some general key aspects for grid development and case study analysis:

- Complexity of calculations versus simplicity (balance between scientific approaches and political acceptability)
- Lack of suitable and current technical, economic, and regional data
- Need to test efficiency (gains) of more differentiated approaches
- Rigidity of RDR requirements and WTO framework
- Large variation in applied eligibility criteria, commitments and payment differentiation
- Different degrees of transparency of payment calculation

# Developing the grids (1/5)

## Logic frameworks of payment calculations: example of afforestation measures



## Developing the grids (2/5)

### Key parts of methodological grids

- Database of existing calculation approaches and components
- Identification of different core parts of the calculation process:
  - baseline requirements
  - relevant commitments defined in the rural development measures
  - lists of practices reflecting required changes in farm management
  - lists of cost, revenue and income components
  - payment differentiation categories and elements
  - RDR requirements
- Integration of core parts in methodological grids in Excel

## Developing the grids (3/5)

### A few key issues in relation to the grid development

- Theoretical and practical consistency of calculation methods
- Two methodological approaches for the calculation process:
  - Balance sheet (FADN) approach - uses cost, revenue and income components at the whole farm level and its components are organised in the same hierarchy as in the FADN database.
  - Practices approach - allows the user to calculate payments based on specific activities or practices required to fulfil the commitments of the rural development measure.

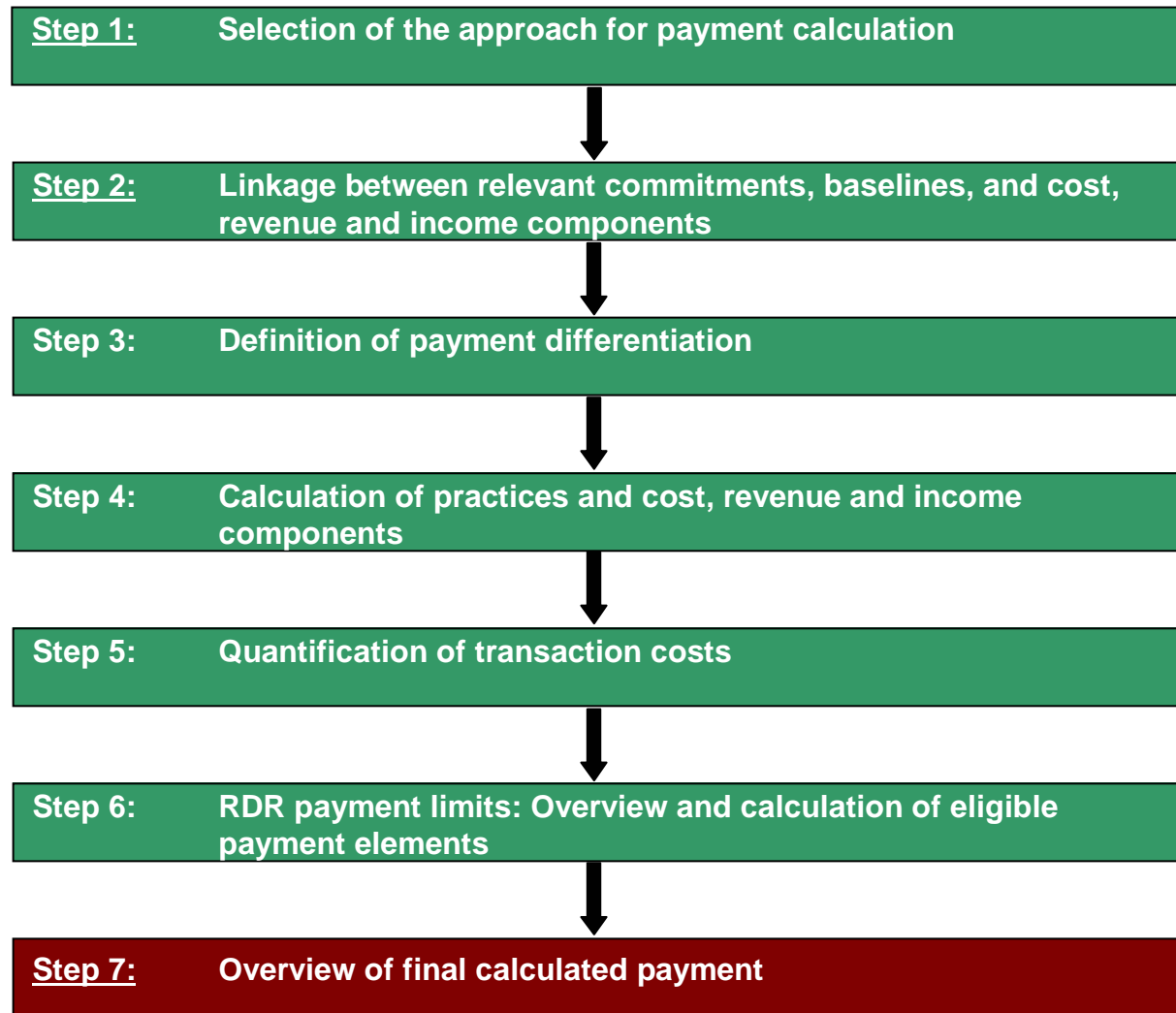
## Developing the grids (4/5)

### A few key issues in relation to the grid development

- Harmonisation of terminology (e.g. cost components, differentiation categories and elements)
- Level of detail and consistency across measures and countries
- Defining calculation baselines - creation of linkage tables with commitments, baselines, cost and revenue components
- Policy relevance and user-friendliness - end-user involvement and testing
- Developing a generic step-by-step approach which was then expanded for the different rural development measures according to measure-specific characteristics

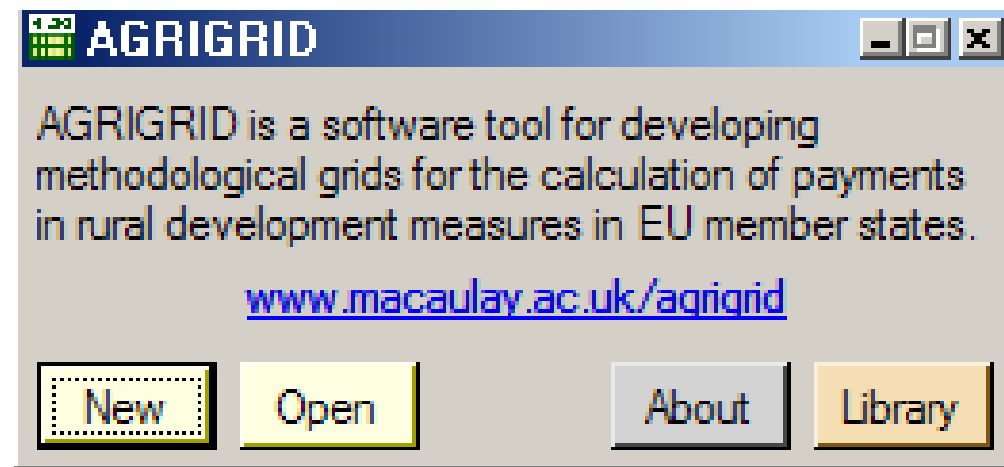
## Developing the grids (5/5)

Step-by-step template



## Software tool (1/4)

- Methodological grids were then transformed into a software tool for payment calculations



- The AGRIGRID software tool utilises .NET Framework 2.0.
- The software application follows the step-by-step approach
- Examples of software output for a few steps...

## Software tool (2/4)

- Linkage table with commitments, baselines, and cost/revenue components

The screenshot displays two windows from the AGRIGRID software. The left window, titled 'AGRIGRID - Linkage', contains configuration options for RD Commitment, Baseline, Revenues, Costs, and Notes. The right window, titled 'Linkages for Payment Calculation', shows a table of linkages. A large blue arrow points from the 'Set' button in the 'Linkage' window to the table in the 'Linkages for Payment Calculation' window.

RD Commitment	Baseline	Revenues	Costs
Introduction and maintenance of organic farming according to prescriptions of directive EEC number 2092/91 of the council considering organic farming and corresponding labelling of	Conventional farming	SE135 Total output crops and crop production	SE300 Crop protection, SE295 Fertilisers, SE340 Machinery and building current costs, SE305 Other crop specific costs, SE285 Seeds and plants, SE370 Wages.

# Software tool (3/4)

➤ Grid with calculation components and applied differentiation

Practice/Cost & Revenue/Income components (as selected in linkage table) **Enable Children**

Differentiations for the selected Cost/Revenue Component

Woodland_and_Trees: Type of woodland	Woodland_and_Trees: Woodland function	Baseline	Commitment	Difference
Conifers	Productive (traditional)	0	9.6	9.6
Conifers	Naturalistic (regeneration)	0	10.4	10.4
Conifers	Productive (commercial)	0	9	9
Broadleaves	Productive (traditional)	0	10.2	10.2
Broadleaves	Naturalistic (regeneration)	0	10.8	10.8
Broadleaves	Productive	0	10.2	10.2
Mixed conifers & broadleaves	Productive	0	10.2	10.2
Mixed conifers & broadleaves	Naturalistic	0	10.8	10.8
Mixed conifers & broadleaves	Productive	0	10.2	10.2

**AGRIGRID - Sub Mask**

Title: Wages paid for afforestation planning

Sub-mask library Save to Library

	Title	Data Source	Unit	Value	Sub-mask	Sub-mask
a	Labour	Expert opinion	hour	16	Edit	Clear
b	Wage	National guidelines	Eur/hour	12	Edit	Clear
c	Area	Average size of applications in the past	ha	20	Edit	Clear

Formula:  $(a*b)/c$

=  $(16*12) / 20$

= 9.6

Tip: Ensure that a space follows a minus (e.g. a - b) except when changing the sign of a number/variable (e.g. a + -b)

# Software tool (4/4)

## ➤ Output window

**AGRIGRID - Grid Output**

Show general grid information  
 Baseline  
 RD commitment  
 Cost/revenue/income values  
 Cost/revenue/income notes  
 Cost/revenue/income data sources  
 Unused cost/revenue/income components  
 Sub-mask details  
 Differentiation description  
 Transaction cost notes  
 RDR limit notes

Select differentiations to display Show >

- Other areas
- Outermost regions
- Naturalistic (regeneration)
  - LFA Area
  - Other areas
  - Outermost regions
- Productive (commercial)
  - LFA Area
  - Other areas
  - Outermost regions
- Broadleaves
  - Productive (traditional)
    - LFA Area
    - Other areas
    - Outermost regions
  - Naturalistic (regeneration)
    - LFA Area
    - Other areas
    - Outermost regions
  - Productive (commercial)
    - LFA Area
    - Other areas
    - Outermost regions
- Mixed conifers & broadleaves
  - Productive (traditional)
    - LFA Area
    - Other areas
    - Outermost regions
  - Naturalistic (regeneration)
    - LFA Area

	Commitment	Additional	Commitment	Additional	Commitment	Additional
Differentiation Categories:						
Woodland_and_Trees: Type of woodland		Conifers		Conifers		Conifers
Woodland_and_Trees: Woodland function		Productive (traditional)		Naturalistic (regeneration)		Productive (comm
Administrative_Land_Division: EC Regulations / National laws / Regional laws		LFA Area		LFA Area		LFA
Establishment Costs	Commitment	Additional	Commitment	Additional	Commitment	Adc
INCOME FOREGONE (EUR)						
Total for Income Foregone (EUR)		0		0		
ADDITIONAL COSTS (EUR)						
Forest planning	9.6	9.6	10.4	10.4	9	
Wages	9.6	9.6	10.4	10.4	9	
Forest planting	1780	1780	576	576	2230	
Seedlings for forestry	880	880	336	336	1150	
Wages	900	900	240	240	1080	
Forest site preparation	200	200	50	50	220	
Protection of forest seedlings	110	110	80.00	80.00	110	
Tree and plantation protection products	110	110	80.00	80.00	110	
Total for Additional Costs (EUR)		2099.6		716.40		
Gross Income (EUR)		2099.6		716.40		
RD Rate (EUR)		0.8		0.8		
RD Minimum (EUR)		0		0		
RD Maximum (EUR)		N/A		N/A		
Financial Support (EUR)		1679.68		573.12		
Maintenance Costs	Commitment	Additional	Commitment	Additional	Commitment	Adc

## Conclusions

- The user-friendly software tool applying the developed grids provides a harmonized step-by-step approach for payment calculations across the EU while maintaining sufficient scope to account for variations in available data.
- The flexibility of the new tool has been emphasized by end-users
- The application of the software has the potential to facilitate the justification of rural development payments between the member states and the European Commission.
- Translation into different languages and maintenance
- However, lack of data remains a key constraint for payment calculations

Project website

# AGRIGRID website

[www.macauley.ac.uk/agrigrid](http://www.macauley.ac.uk/agrigrid)