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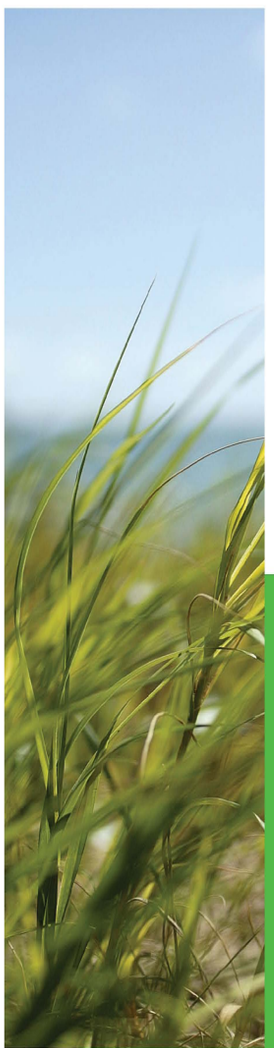

Agriculture and Rural Development

Culture and Education

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HOW TO IMPROVE THE SUSTAINABLE COMPETITIVENESS AND INNOVATION OF THE EU AGRICULTURAL SECTOR

STUDY

EN FR

2012

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This document was requested by the European Parliament's Committee on Agriculture.

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Abstract

This study reviews the extent to which the current CAP and related EU policies promote sustainable competitiveness and innovation in agriculture, and assesses the current legislative proposals for CAP reform. It finds that the current policy does not realise its potential and that, although the reform package represents an improvement, particularly in its proposals for Pillar 2, more could usefully be done. Recommendations are made to strengthen the balance of the package and improve proposals for each pillar of the CAP. Key ingredients include better advice, knowledge transfer, more use of locally tailored, strategically planned measure-packages, fuller sustainability-proofing and new incentives for innovation.

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CONTENTS

LIST OF ABBREVIATIONS

AEM	Agri-environment Measure
AFN	Alternative Food Network
AGRI	Agriculture and Rural Development Committee
ALSIA	Agenzia Lucana di Sviuppo e Innovazione (IT)
CAP	Common Agricultural Policy
CEC	Commission of the European Communities
CF	Cohesion Fund
CGIAR	Consultative Group on International Agricultural Research
CH_4	Methane
CMO	Common market organisation
CO_2	Carbon dioxide
COSVEL	Local Action Group in IT
CSG	Community Strategic Guidelines
CTE	Contrat Territorial d'Exploitation
EC	European Commission
EAFRD	European Agricultural Fund for Rural Development
EAGGF	European Agriculture Guidance and Guarantee Fund
EFA	Ecological Focus Area
EIA	Environment Impact Assessment
EIP	European Innovation Partnership
EIT	European Institute of Innovation and Technology
EMFF	European Maritime and Fisheries Funds
ENRD	European Network for Rural Development
ERDF	European Regional Development Fund
ESF	European Social Fund
EU-12	The 12 Member States of the European Union which have joined since 2004
EU-15	The 15 Member States of the European Union prior to the 2004 enlargement
EU-27	All 27 Member States of the European Union
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FAS	Farm Advisory Service
FEM	Measure 225

FTE	Full-time Equivalent
GAEC	Good Agricultural and Environmental Condition
GDP	Gross Domestic Product
GFAR	Global Forum on Agricultural Research
GHG	Greenhouse Gas
HNV	High Nature Value
IST	Income Stabilisation Tool
ITI	Integrated Territorial Intervention (PT RDP)
ITP	Integrated Territorial Project (IT RDP)
KIC	Knowledge and Innovation Communities
LAG	Local Action Group
LFA	Less Favoured Area
LIP	Local Institutional Partnership (IT RDP)
MS	Member State
MTR	Mid Term Review
N_2O	Nitrogen
NGO	Non-governmental Organisation
NRN	National Rural Network
OECD	Organisation for Economic Cooperation and Development
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
PMG	Processing and Marketing Grant (EN)
RD	Rural development
R&D	Research and Development
RDP	Rural Development Programme
RES	Rural Entreprise Scheme (EN)
SAP	Single Area Payment
SCAR	Europe's Standing Committe on Agricultural Research
SEA	Strategic Environmental Assessment
SFSCs	Short Food Supply Chains
SMEs	Small Medium Entreprises
SPS	Single Payment Scheme
TEEB	The Economics of Ecosystems and Biodiversity
TSG	Traditional Speciality Guaranteed
TWG	Thematic Working Group
WTO	World Trade Organisation

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EXECUTIVE SUMMARY

Background and aims of the study

1. Ensuring the ongoing development and competitiveness of the agricultural sector in Europe is essential to secure the long-term future of the industry and its ability to trade on the global market: this has long been recognised by policy. Today, the notion of *sustainable* competitiveness has emerged and is referred to more frequently in the policy discourse surrounding the future of the CAP. It has been described by the Commission as follows:

"The overarching objective for the future CAP should be **sustainable competitiveness [:] *to achieve an economically viable food production sector, in tandem with sustainable management of the EU's natural land-based resources.*"**

2. This notion has helped to shape the current legislative proposals for reform of the CAP. As Commissioner Cioloş said to the Oxford Farming Conference in January 2011:

   "My conviction is that at the end of it (*the reform*), this policy needs to be well equipped to address the challenges of food security and climate change, to preserve natural resources and to maintain territorial balance across Europe."

3. Innovation is seen as playing a critical role in helping European agriculture and rural areas to meet these challenges. Much greater emphasis on innovation has been placed within the legislative proposals for rural development policy, in particular.

4. This study makes an analysis of how best EU agriculture and rural development policies can promote sustainable competitiveness and innovation, drawing upon existing experience and relevant research, and uses this to evaluate the proposed reforms to the CAP after 2013. The coherence, balance and content of the draft legislative package are assessed and recommendations are made for changes which should improve its ability to deliver against these strategic goals.

Findings

5. ***Sustainable competitiveness*** is used by the European Commission and Commissioner Cioloş to mean an agricultural sector which is able to maintain viable production throughout the territory of the EU, and which at the same time, contributes to the EU's key environmental goals including the protection of natural and cultural resources and the achievement of successful climate change mitigation and adaptation. The term also incorporates a commitment to furthering the goals of cohesion policy and thus, it requires an integrated approach combining economic, social and environmental aspects. ***Innovation*** is viewed as a key means by which these joint goals will be achieved. It should embrace all actors, private, public and voluntary, in the rural economy and rural communities and include the policy process, its integration and implementation.

6. The EU vision as represented in the Lisbon Treaty, the EU2020 strategy and the new legislative proposals for the CAP, call for a transformation of European agriculture towards sustainable competitiveness, which requires a step-change in practice, increasing farmers' knowledge, skills and capacities to build successful and environmentally-responsible businesses providing high quality food, other products and rural amenities for consumers and citizens in Europe and beyond.

7. In view of real-world market failures and market imperfections, key elements in achieving sustainable competitiveness include giving greater attention to the production and protection of public goods through agriculture, as well as considering the relative power and influence of farmers within supply chains.

8. Innovation may be seen as a critical element in helping agriculture to achieve long-term sustainability and resilience, in the face of global challenges. Whilst conventional discussions of innovation usually concern technological and farm management change, evidence suggests that capacity-building, as well as institutional and policy innovation, are also critically important.

9. **Both pillars of the CAP have impacts upon the sustainable competitiveness of European agriculture**. Some impacts are general – providing support to the incomes of farm households across whole territories; while others have a much more targeted and transformative effect upon specific types of business, particular kinds of output and so on. In total, the policy provides a broad toolkit with much potential, in this regard. In respect of innovation, there is less clear evidence of the value of CAP measures for this purpose, although the LEADER legacy remains relevant.

10. **The evidence of actual effectiveness is mixed and it is clear that the policy does not deliver its potential**, in respect of promoting sustainable competitiveness. The balance of funding and policy priority, with much emphasis upon pillar 1 general income support, works against the CAP providing a real stimulus for transformation towards sustainable competitiveness at all levels. Pillar 2 aid is more critical, in this regard as the measures are more overtly transformative in their character. However, there is a tendency for Pillar 2 aids to be offered without sufficient targeting towards sustainability and innovation. Good examples of useful policy initiatives include integrated sub-sector or territorial 'measure-packages', tailored to pursue strategies designed and delivered with multi-partner involvement; and policies which are locally-sensitive and supported by good promotion, information and technical advice.

11. **Aspects of policy design and delivery have a critical influence upon policy performance**; shaping precisely how instruments are used (or not), and their cumulative effects upon the sector. Common obstacles to effective operation include insensitivity to the perceptions and understandings of targeted or intended beneficiary groups; implementation processes designed primarily to simplify payment, control and audit processes rather than to achieve successful outcomes; and lack of trust in local delivery agents and among beneficiary groups. Risk aversion and insufficient understanding of local factors influencing policy performance too often characterise the design and administration of RD funding. Many measures are felt by potential beneficiaries to be bureaucratic.

12. **An under-provision of good quality supporting advice, information and well-functioning knowledge exchange processes often undermine policy success**. This is needed to build capacity in both the public administration and among stakeholders (seeking to establish a shared culture of policy learning), as well as to develop beneficiaries' confidence, to enable innovation.

13. Within the proposals for the new CAP 2014-2020 there are significant changes to both pillars. Assessing these for their potential to enhance sustainable competitiveness and innovation, it appears that the proposals for Pillar 2 are largely positive and potentially significant, whilst those for Pillar 1 and horizontal CAP measures are much less obviously so, for the EU as a whole. Changes to non-CAP policies for research, the dairy sector and the Globalisation adjustment fund are also mainly positive.

14. **In Pillar 2, the proposals offer potential but include insufficient safeguards on sustainability, and inadequate incentives to overcome already-evident conservatism** in programmes' design and delivery, which mitigates against sustainable competitiveness and innovation. In respect of Pillar 1, more ambitious strengthening of positive aspects such as the Farm Advisory System and the greening options, would increase the likelihood that the proposals would deliver better against these goals.

15. In respect of other policy developments, those for the dairy sector should promote competitiveness but do not sufficiently address sustainability, while those for research and global adjustment could be more closely co-ordinated with the CAP toolkit, to maximise synergies. A more integrated approach is needed in the future.

Recommendations

To improve the balance and coherence of the overall package we recommend the following.

1. More emphasis should be placed upon the enhanced development of effective Pillar 2 programmes as a key instrument in the reform, in which funding is used strategically to achieve specific goals for sustainable territorial and sector competitiveness, as well as greater cohesion and resilience in rural areas. It is recommended that the EC ensures that all Member States spend a minimum proportion of their total EU CAP allocations on rural development under the EAFRD, in recognition of its specific potential to promote sustainable competitiveness and innovation, and in support of a better balance in overall resource allocations. This proportion could be set initially at 20% or 25%[1], to be reviewed at mid-term.

2. The Pillar 1 proposals should place greater requirements upon Member States and the Commission, to monitor and review their impacts upon sustainable competitiveness, with specific provision to amend cross-compliance, the greening provisions and the other targeted options for support (young farmers, disadvantaged areas), taking account of review findings, at mid-term.

3. The Pillar 2 proposals should incorporate greater sustainability safeguards in respect of all measures, and Managing Authorities should be required to devise specific eligibility, selection and targeting criteria for all investment aids, in particular, which take account of local conditions and are clearly designed to improve the additionality of funding, and stimulate change that is beneficial in economic, environmental and social terms. All relevant rural stakeholders should help to determine these criteria, as well as to monitor and reflect on their performance.

4. There should be explicit provision for closer co-ordination between CAP administration and planning, and the provisions of the new dairy package and the future proposals for research and development supporting agriculture, environment and the food sector, to ensure that synergies in purpose and the use of resources are maximised.

In respect of the detailed proposals for CAP Pillar 1, the following recommendations are made.

[1] Estimating with 2010 expenditure figures, a 20% threshold would require a larger than current P2 share in 7 Member States (UK, D, Dk, NL, Be, Gr and very slightly, E), while 25% would then similarly affect Ire and It, in addition.

5. The Farm Advisory System provisions should be strengthened considerably. Member States should be required to provide extension services sufficient to enable at least 25% of all registered farmers to benefit from advice and support, in all agricultural regions, over the period (the average proportion in 2009 was 5%). The scope of the FAS should include not only cross-compliance but also how to maximise the benefit of greening measures, and how to incorporate environmental sustainability into all RDP project proposals. A ring-fenced element of CAP funding should be identified to be used specifically to support the expansion and strengthening of FAS across the EU-27 with a particular emphasis upon supporting high-quality services in those Member States with little prior experience of this type of service. Within this programming period, the Commission should take a lead in reaching EU agreement on minimum acceptable professional standards and competencies in FAS, to ensure that farmers throughout the EU have access to suitably qualified and competent practitioners.

6. In whatever form it eventually is agreed, the so-called 'greening' package should be supported with a requirement for Member States to produce a strategy justifying how they have used their discretion to ensure that its application will promote enhanced environmental standards and greater synergies between sustainability and competitiveness, in their own context. The Commission could also require EEA monitoring and oversight of the implementation of the package across the Member States, in partnership with relevant NGOs. This will require the measurement of appropriate environmental baselines and some realistic targets for gauging the performance of greening, by 2020.

7. Whilst direct payments are not a key instrument to promote sustainable competitiveness, we suggest there could be efficiency gains for CAP goals if the future distributional criteria for a new Pillar 1 area payment could be based upon objective economic, social and environmental criteria and more explicitly include cohesion considerations. The current emphasis upon market compensation considerations should be considerably reduced or removed.

In respect of the detailed proposals for CAP Pillar 2, in addition to the critical point about selection criteria stated in the 'balance' section above, the following recommendations are made.

8. The governance of the new EIP should be strengthened at EU level, in order to ensure that it is sufficiently recognised and prioritised within RDPs. For instance, it should have dedicated Commission support and Member State reporting requirements, the Commission should be able to help MS develop their proposals for EIPs separately from the process of RDP approval, and to ensure a ring-fenced share of technical assistance to be devoted to EIPs. The EIP network should require minimum levels of active participation by the EIPs within each programme, specified in relation to attendance at networking events, contribution to exchange of good practice and specific engagement in collaborative partnerships between EIP, to encourage shared learning on common themes (e.g. resource efficiency, adding value and so on). We also suggest it would be beneficial to offer enhanced co-financing rates for all EIP-planned actions.

9. More broadly, the Commission should add a provision which specifically incentivises risk-taking in innovative actions within RDPs (not just within EIP), and prevents the 'performance reserve' mechanism from disincentivising innovation. This provision could, for instance, require all RDPs to include a section proposing new measure-

packages to achieve innovation in priority sub-sectors or territories, linked to specific targets which integrate economic, environmental and social goals for those territories or sub-sectors. Like EIP, such packages should be subject to higher co-financing rates than the norm for the relevant RDP, and should become a second basis for judgements about the release of the performance reserve at mid-term, such that the reserve will only be released if RDPs demonstrate *both* a degree of efficiency in spending AND successful establishment of new measure-packages. The tolerance of failure at project level should also be higher, for projects initiated under these measure-packages (i.e. disallowance or clawback should apply above a financial threshold which is higher than that which applies more broadly).

10. The new Pillar 2 regulation could be undermined by the continuing rigidity of CAP financial regulations governing the EAFRD, which are inconsistent with those applied to other EU funds serving similar development purposes (ERDF, ESF, EMFF). To strengthen the achievement of the Partnership Contracts, as well as to ensure the effective continuation of LEADER and its development as a multi-funding vehicle, the rules governing all of these funds should be harmonised, so that decommitment, disallowance and clawback provisions, and procedures for devolved delivery, control and reporting, should be identical. This is an essential ingredient in ensuring the accessibility of EAFRD funds to those who will generate most benefit from them, at local level. It is particularly important for poorer regions in federal countries and for the new Member States where other EU funds are as significant an influence on rural development as the CAP.

11. The activities and the independence from the Commission of the future networks for Rural Development and the Evaluation of Rural Development should be strengthened, to enable these bodies to expand the range of their activities and the number of actors who become involved, within the Member States. In particular, more resource should be devoted to organising and facilitating knowledge exchange events and relationships which enable RD practitioners as well as policy makers to learn directly from each other's experience with innovative or novel approaches which are well-attuned to address the new challenges.

12. It seems appropriate to consider a minimum threshold for spending on knowledge transfer, information and advice measures, within RDPs. Also, a maximum proportion (perhaps 5%) should be stipulated for the use of risk management measures in RDPs; or these measures should be moved back into the suite of optional Pillar 1 items, rather than remaining in Pillar 2.

1. CONTEXT AND DEFINITION OF TERMS

KEY FINDINGS

- ***Sustainable competitiveness*** has been used by the European Commission and Commissioner Cioloș to mean an agricultural sector which is able to maintain viable production throughout the territory of the EU, and which at the same time, contributes to the EU's key environmental goals including the protection of natural and cultural resources and the achievement of successful climate change mitigation and adaptation. The term also incorporates a commitment to furthering the goals of cohesion policy and thus, it requires an integrated approach combining economic, social and environmental aspects. ***Innovation*** is viewed as a key means by which these joint goals will be achieved.
- The EU vision as represented in the Lisbon Treaty, the EU2020 strategy and the new legislative proposals for the CAP, call for a transformation of European agriculture towards sustainable competitiveness, which requires a step-change in practice, increasing farmers' knowledge, skills and capacities to build successful and environmentally-responsible businesses providing high quality food, other products and rural amenities for consumers and citizens in Europe and beyond.
- In view of real-world market failures and market imperfections, key elements in achieving sustainable competitiveness include giving greater attention to the production and protection of public goods through agriculture, as well as considering the relative power and influence of farmers within supply chains.
- Innovation may be seen as a critical element in helping agriculture to achieve long-term sustainability and resilience, in the face of global challenges. Whilst conventional discussions of innovation usually concern technological and farm management change, evidence suggests that capacity-building, as well as institutional and policy innovation, are also critically important.

1.1. Background and context for the study

Ensuring the ongoing development and competitiveness of the agricultural sector in Europe is essential to secure the long term future of the industry and its ability to trade on the global market. This aim underpins the original objectives of the CAP, as set out in the Treaty of Rome and still in place today. Those original goals placed emphasis upon productivity, output growth and fair returns to the sector. More recently, the notion of *sustainable* competitiveness has emerged and is referred to more frequently in the policy discourse surrounding the future of the CAP. It has been described by the Commission as follows:

"The overarching objective for the future CAP should be **sustainable competitiveness [:] *to achieve an economically viable food production sector, in tandem with sustainable management of the EU's natural land-based resources.*"** [own emphasis]

SEC(2011) 1153 Final/2, European Commission (2011b)

This text makes it clear that the addition of the term 'sustainable' to competitiveness has an explicitly environmental purpose, in this context – sustainability here is not only about

the economic sustainability of the sector, but about improving its management of natural resources: improving environmental sustainability.

These goals acknowledge that in future, achieving competitiveness within the agricultural sector cannot be seen in isolation from the other roles that agriculture plays in relation to the provision of environmental benefits, natural and cultural ecosystem services and within wider rural economy and society. The Lisbon Treaty of 2007 and in particular the Göteborg Strategy 2001 and the European Council's Declaration on Guiding Principles for Sustainable Development (2005), are clear expressions of these multiple dimensions. Continued pressure on the world's scarce natural resources, coupled with the challenge of climate change and the need to move towards a low carbon economy, mean that choosing between competitiveness and sustainability is no longer a viable option. Competitiveness must also be supportive of EU cohesion. As Commissioner Cioloş said to the Oxford Farming Conference in January 2011:

> "My conviction is that at the end of it (*the reform*), this policy needs to be well equipped to address the challenges of food security and climate change, to preserve natural resources and to maintain territorial balance across Europe."

This economic, environmental and social vision is recognised in the objectives of the EU2020 strategy, centred on three mutually reinforcing priorities:

- Smart growth - developing an economy based on knowledge and innovation;
- Sustainable growth - promoting a more resource efficient, greener and competitive economy; and
- Inclusive growth - fostering a high-employment economy delivering social and territorial cohesion (COM(2010) 546 Final) (European Commission, 2010a).

Balancing the need for Europe to provide its share of global food supplies while also delivering long-term improvements in the environment (biodiversity, landscape, soil, water and air quality, resilience to climate change), and quality of life for all, will be a key challenge for the agriculture sector. This change in emphasis for agriculture represents a significant change in respect of the most cost-effective strategies for achieving competitiveness, because the new agenda requires more integrated and multi-functional thinking, in respect of all stages in the planning and implementation process.

Innovation is seen as playing a critical role in this regard and much greater emphasis on innovation has been placed within the legislative proposals for rural development policy, in particular. Historically, innovation in the agricultural sector has tended to focus upon cost reduction and/or new product development. In respect of rural development, innovation has been promoted in LEADER and other Community Initiatives, as well as in research.

In this context, an examination of how best EU agriculture and rural development policies can promote sustainable competitiveness and innovation, drawing upon existing experience and relevant research, is a highly relevant exercise when considering the proposed reforms to the CAP after 2013. This is the broad purpose of our study.

1.2. Study Objectives

The objectives of the study are fourfold.

1. To provide a brief review of the measures available under the current CAP (2007-13) that can be used to improve the sustainable competitiveness of the agricultural sector and encourage innovation, and to demonstrate the degree to which they have been used successfully for this purpose in different parts of the EU, with a particular (but not exclusive) focus on Axis 1 measures within rural development policy.

2. Looking to the future, to assess the potential offered by EU policy approaches to assist the agricultural and agri-food sector in improving competitiveness in a sustainable way and encourage innovation, with a particular focus on the CAP2020 legislative proposals, and to identify key measures that are likely to be most effective in delivering these aims.

3. To analyse the overall coherence and likely effectiveness of the package of available measures to promote sustainable competitiveness and innovation goals in relation to the agricultural sector, considering coherence between the CAP proposals and other EU initiatives, as well as coherence within the CAP itself.

4. To provide policy relevant and realistic conclusions and recommendations reflecting the European Parliament's specific role in relation to CAP reform, post-2013.

The study encompasses a range of policy approaches that have a bearing on encouraging improved competitiveness and innovation within the agricultural sector. Although the main focus is the CAP and the legislative proposals for its reform, other relevant policies are also considered, including the proposed legislative package on contractual relations in the milk and milk product sector, EU policy on research and development, EU agricultural product quality policy, and the potential for synergies between CAP funds and those of the European Regional Development Fund (ERDF), the European Social Fund (ESF), and the European Maritime and Fisheries Fund (EMFF).

1.3. Definitions and terminology

The terms 'sustainable competitiveness' and 'innovation' are not straightforward to define. Because there are no agreed definitions, this can lead to misunderstandings about what precisely is meant by the use of the terms. The following section includes a brief analysis of these concepts and clarifies how the terms are interpreted for use within this study.

1.3.1. Sustainable competitiveness

In relation to **competitiveness,** there is no generally accepted definition of the term and it is laden with different connotations. An elaboration of the OECD definition is that the term is essentially a measure of a business or a country's advantage or disadvantage in selling its products in the market, whether local or international. To be competitive, a business must be able to offer products and services that meet relevant quality standards at prices that are competitive with (= as good as) those of other sellers, and provide adequate returns on the resources employed or consumed in producing them. A competitive firm, sector or country is generally one which has lower costs of production for a given product specification, or offers a higher-quality specification for a given price (cost) compared to other firms, sectors or countries. It is always a comparative or relative term.

"Competitiveness" can refer to almost any level of aggregation from individual enterprises within a business, between businesses operating in local markets or nationally and internationally between businesses, sectors, or whole economies. Whilst at each level, the term competitive has the same meaning, the factors influencing competitiveness, and relevant policy actions, will be different. Most economic text books refer to the word, or define it, in its *macroeconomic* sense. They consider the ability of an economy to compete internationally given its resource base, technology (i.e. productivity) and most importantly, its fiscal and monetary policy and exchange rate. Countries with high business taxes, high interest rates and "strong" currencies may find themselves uncompetitive.

This study is concerned more with the *meso*- and *micro-economic use* of the term for the food and agricultural sector, in the context of pursuing balanced territorial development. Here it is still a comparative term with respect to other sectors of the economy, and because most raw and processed agricultural products are internationally-traded there remains an underlying international aspect in the expression. However, it is recognised that agriculture produces a range of generally non-traded, environmental and social goods and services which may be territorially-specific. In these cases, concepts of international competition are not relevant: the appropriate comparator becomes the efficiency of resource use in the production of these and other domestic goods and services, in a local or regional context.

In most Commission documents and in speeches by Commissioner Cioloş in the past two years, the use of competitiveness is almost interchangeable with notions of the *viability* of EU agriculture. The general thrust is for policies to ensure that farming in all rural areas of Europe remains viable, ensuring balanced territorial development – thus there is a cohesion ethic operating alongside notions of comparative economic success. As illustrated in the quotation in section 1.1, competitiveness is seen as essential to ensure sector viability, and viability is linked closely to notions of territorial extent (avoiding land abandonment).

Thus, combining this perspective with *sustainability* is essentially reinforcing much previous rhetoric concerning the "European model" of agriculture, which respects and preserves the natural environment whilst supporting the continuation of farming, across the EU territory.

Sustainability, in general, may refer to the long-term maintenance of any characteristic of a territory, society and/or economy, natural or cultural. However, in the particular context of CAP reform and in conjunction with competitiveness, it has been used to refer to sustaining the natural and cultural resource base of agriculture and rural areas: protecting and maintaining environmental and cultural resources and preserving ecosystem services.

The importance of sustainability is emphasised in the Lisbon Treaty (Article 2.3.3) which states that "The Union shall... work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment."

All EU policies are required to adhere to the principles of the Lisbon Treaty, and also to demonstrate how they meet the objectives of the EU2020 strategy. The Explanatory Memorandum accompanying the legislative proposals for the CAP 2014-2020 emphasises the "need to promote resource efficiency with a view to smart, sustainable and inclusive growth for EU agriculture and rural areas in line with the Europe 2020 strategy". The recently published roadmap for resource efficiency sets out a vision for 2050, which is that 'the EU's economy has grown in a way that respects resource constraints and planetary

boundaries, thus contributing to global economic transformation. Our economy is competitive, inclusive and provides a high standard of living with much lower environmental impacts. All resources are sustainably managed, from raw materials to energy, water, air, land and soil. Climate change milestones have been reached, while biodiversity and the ecosystem services it underpins have been protected, valued and substantially restored'. The roadmap recognises that a transition to a resource-efficient economy presents challenges, but policies are needed that "recognise the interdependences between the economy, well-being and natural capital and seek to remove barriers to improved resource efficiency, whilst providing a fair, flexible, predictable and coherent basis for business to operate" (COM(2011) 571 final) (European Commission, 2011c).

Numerous recent studies conclude that our natural capital base, providing (natural) resources and ecosystem services, is finite and needs to be used much more efficiently than it has been, to date. In the medium and long term, agricultural systems that are low-carbon and much more resource-efficient will be essential, as argued in studies such as the Stern report on the costs of climate change (Stern, 2007). Increasing scarcity of resources such as fossil fuels and water, and of absorptive capacity in respect of wastes and contaminants, imply increasing costs of living and of production. Thus, the faster that production systems shift towards higher sustainability standards, the better their chances of remaining competitive.

1.3.1.1. Sources of economic competitiveness

There are a number of possible sources of competitive success for any firm, region or sector. Obvious ones are (1) *lower factor costs* (i.e. lower costs of land, labour or capital) and (2) *better technology*/technical performance/productivity of factors. Standard analyses of competitiveness focus on these considerations. They compare input quantities, qualities and prices, and various measures of productivity – simple *partial average productivity indicators* like yields per animal, per hectare, or per €100 of inputs. The more sophisticated indicator generally used is *total factor productivity*. This measures changes in the value of outputs that are not simply explained by the costs of all the factor inputs. All these approaches are essentially static – they measure performance at a given point in time, of a specific type or system of production.

A rather different approach is to interpret competitiveness in terms of dynamic behaviour: including medium and longer term resilience, the relative strengths of (often multi-actor) networks, the adaptive capacity of businesses, the sector, regions and communities, the resilience of agro-ecosystems to climatic variation, or the functioning and qualities of food chains in the face of changing market conditions (see for example Cairol et al. 2009, Knickel et al. 2009, Von Münchhausen et al. 2010, Van der Ploeg & Marsden, 2008). These kinds of competitiveness must be measured indirectly, using different analytical techniques.

Within the agricultural sector, routes to achieving competitiveness, also barriers to competitiveness, are likely to differ between sub-sectors (arable, different types of livestock, fruit and vegetables, wine etc) as well as geographically. At a local, regional, national or European level, the competitiveness of agricultural and agri-food businesses depends on a factors such as the biophysical characteristics of the area, farm size and structure, productive capacity, access to and distance from markets, ability to withstand volatility in prices, human capital (eg skilled labour, marketing skills), technological progress, quality of the final product, transport costs, regulations and policies (fiscal, trade, sectoral). Simultaneously, these factors affect the environmental impact of agriculture.

Given that most farms are multi-input and multi-output businesses, that the quality of both inputs and outputs varies over time and space and that different currencies confound international comparisons, it is not easy to measure agricultural competitiveness. However, persistently poor competitiveness is generally assumed wherever sub-sectors and/or territories suffer significant decline in levels of economic activity. This is therefore perhaps the simplest way to assess it. In the same way, where sub-sectors and/or territories suffer significant decline in environmental quality, we can identify a lack of sustainable competitiveness, even in situations where agriculture is otherwise economically successful.

1.3.1.2. Sustainable competitiveness and the implications of imperfect markets

Market failures refer to situations described by economists where there are significant externalities or the existence of public goods, which are not provided through normal market transactions in the quantities demanded by society. These are not occasional and exceptional occurrences in agricultural production: they are both common and widespread (EEA, 2012; Millennium Ecosystem Assessment). This means that producers or consumers, or both, do not take into account costs they impose on the environment, and are not rewarded for external benefits (public goods) that they produce, through conventional markets. In the absence of significant non-market influences, the net effect is an under-provision of desired goods such as water, soil and air, cultural landscapes and biodiversity.

Agriculture depends critically on natural resources and climate, and how agriculture is conducted has significant effects on almost every aspect of the environment. This inter-dependence is unique amongst sectors of the economy. Evidence suggests that the implicit value of public goods associated with agriculture is significant, compared to the value of the marketed output of agriculture (see for example Bryden et al., 2011, Knickel et al. 2011). Yet none of these considerations enter into conventional measurements of agricultural competitiveness. By adopting the term *sustainable* competitiveness, the EC intention is to widen the narrow, market-based, term to embrace market failures and ensure that the competitive success of the sector is not pursued at the cost of ecosystem services and the long term sustainability of the natural resource base.

Market imperfections refer to departures from the standard economic assumptions of 'perfect competition', in real markets (full information, numerous small players, perfect substitution of factors of production, and so on). For instance, there are situations where, either because the participants in markets are few or because market shares are unevenly distributed, some participants gain significant market power. This gives them an ability to influence market prices and/or production costs and their decisions in this respect will try to anticipate the actions of their competitors; so firms acting under imperfect competition often devote considerable resources in seeking to influence demand for their produce.

Most agricultural production is characterised by being highly fragmented with many producers. Yet it deals with highly concentrated sectors providing many of its variable inputs: energy, fertilisers, seeds, machinery, crop protection, animal health products and credit. It also applies on the downstream side in relation to processors and retailers and, in the case of traded commodities, international traders. Thus, imperfect competition is the norm for farmers buying from oligopsonistic sellers and selling to oligopolistic buyers. This imbalance in power typically puts farmers at a competitive disadvantage, in markets.

Farmers also suffer from many of the problems characteristic of small businesses operating in variable market conditions (for farming, markets vary both seasonally and in longer-term cycles). Risk-averse decision-making with imperfect information, and relative under-

investment in research and development, are perhaps the most notable issues linked to market imperfections, which may create barriers to achieving sustainable competitiveness.

Two crucial points follow from this analysis:

- conventional measurements of competitiveness which do not embrace market failures are insufficient and misleading ways to assess EU agriculture's success in achieving *sustainable* competitiveness. Seeking simply to improve producers' 'market orientation' will not ensure the socially optimal delivery of ecosystem services. Resolving the tension between market efficiency and orientation for the marketed outputs of agriculture with 'the right scale' of delivery of the non-market environmental and social services of agriculture, is what *sustainable competitiveness* seeks to do;

- policies to promote sustainable competitiveness need to be concerned with issues of *market power, information flow and farmer attitudes*, seeking to overcome agriculture and food market imperfections, as well as the more widely recognised themes of improving efficiency and productivity in the sector.

1.3.2. Innovation

In the most general sense, **innovation** is particularly linked to the ability to undertake problem solving activities through the bringing together of actors and expertise from different territorial and policy contexts, to gain new insights and wider perspectives to enrich actions (Knickel et al., 2009). Innovation in business generally comes from individuals or people working together. Innovation at the level of individual farm businesses, regions or product sectors often depends upon entrepreneurial confidence and the acquisition of new skills and information which can be applied to generate improved performance or increased resilience. In respect of sustainability and the CAP, innovation is often seen as key in stimulating a greater degree of adaptation to tackle the considerable challenges of the future, including climate change, water scarcity and the protection of biodiversity (House of Lords, 2011). Key ingredients for successful innovation include good information and understanding; the means to effect change on the ground; and the ability to be recognised and/or rewarded for the positive results of changes - these have been termed farmers' 'willingness to change'; 'capacity to change'; and 'engagement' (Dwyer et al, 2007).

Innovation is needed not just amongst the actors in rural economy and communities, it may be seen as a critical element in achieving a 'step-change' in how EU agriculture is organised and practised, in future. Europe's Standing Committee on Agricultural Research (SCAR) refers to the need to "enable agriculture to cope with a range of complex and interlinked challenges, such as rapidly increasing globalisation, climate change and unsustainable consumption of natural resources". Its highly relevant report "Agricultural Knowledge and Innovation Systems in transition" was published in March 2012. In general terms, it is possible to identify at least two dimensions to 'innovation' in agriculture:

1. Technological progress, where commercial farmers or food processors adopt new technologies or practices (including biological, technical and organisational progress) where the main element of innovation is already embodied in these new practices as developed and promoted by companies, research firms and/or extension agents. Here, farmers 'innovate' by being early adopters of such practices. In some cases, innovation may come direct from farmers themselves who have experimented to identify new

practices (e.g. as seen among farmers who follow the principles of Integrated Crop Management, experimenting with ways to reduce inputs without compromising yields);

2. More fundamental innovation where the whole land and business management system changes, to incorporate new concepts or modes of behaviour – for example, novel strategies such as community-supported agriculture or care-farming; or supporting food production by much more significant leisure, energy generation, retail or tourism ventures; or new forms of vertical integration or short supply chains (e.g. for pharmaceuticals or novel crops); or waste minimisation and recycling. In these cases, the innovation is more in respect of how a business is conceived and its strategic orientation, rather than in any specific technical aspects of the production or management process.

Looking ahead, the analyses provided in the context of the "International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD)" suggest that the further evolution of sector innovation needs to go beyond simple technological and technical questions in addressing the challenges of global food security and climate change. Thus, it would seem reasonable to seek to identify ways in which policies can encourage more fundamental innovation, rather than only considering technological progress, in this study.

From long experience in agricultural and rural development policy evaluation, we note that in respect of fostering successful transitions to sustainable competitiveness in the sector, much evidence suggests that capacity-building (i.e. helping farmers and other rural actors to develop entrepreneurial confidence, and the skills to begin to innovate), as well as institutional and policy innovation (using design and delivery to encourage more novel or radical actions) are also critically important.

2. REVIEW OF CURRENT POLICY INSTRUMENTS IN FACILITATING SUSTAINABLE COMPETITIVENESS AND INNOVATION

KEY FINDINGS

- **Both pillars of the CAP have impacts upon the sustainable competitiveness of European agriculture**. Some impacts are general – providing support to the incomes of farm households across whole territories; while others have a much more targeted and transformative effect upon specific types of business, particular kinds of output and so on. In total, the policy provides a broad toolkit with much potential, in this regard. In respect of innovation, there is less clear evidence of the value of CAP measures for this purpose, although the LEADER legacy remains relevant.
- **The evidence of actual effectiveness is mixed and it is clear that the policy does not deliver its potential**, in respect of promoting sustainable competitiveness. The balance of funding and policy priority, with much emphasis upon Pillar 1 general income support, works against the CAP providing a real stimulus for transformation towards sustainable competitiveness at all levels. Pillar 2 aid is more critical, in this regard as the measures are more overtly transformative in their character. However, there is a tendency for Pillar 2 aids to be offered without sufficient targeting towards sustainability and innovation. Good examples of useful policy initiatives include integrated sub-sector or territorial 'measure-packages', tailored to pursue strategies designed and delivered with multi-partner involvement; and policies which are locally-sensitive and supported by good promotion, information and technical advice.
- **Aspects of policy design and delivery have a critical influence upon policy performance**; shaping precisely how instruments are used (or not), and their cumulative effects upon the sector. Common obstacles to effective operation include insensitivity to the perceptions and understandings of targeted or intended beneficiary groups; implementation processes designed primarily to simplify payment, control and audit processes rather than to achieve successful outcomes; and lack of trust in local delivery agents and among beneficiary groups. Risk aversion and insufficient understanding of local factors influencing policy performance too often characterise the design and administration of RD funding. Many measures are felt by potential beneficiaries to be bureaucratic.
- **An under-provision of good quality supporting advice, information and well-functioning knowledge exchange processes often undermine policy success**. This is needed to build capacity in both the public administration and among stakeholders (seeking to establish a shared culture of policy learning), as well as to develop beneficiaries' confidence, to enable innovation.

2.1. Introduction

This chapter reviews how far EU policy approaches and instruments for the agricultural sector contribute to enhancing sustainable competitiveness and/or help to promote innovation in that respect. It analyses the factors influencing the relative success or failure of different approaches for sustainable competitiveness, as well as the main elements which promote innovation. The main focus is on the CAP, given the current reform context.

The chapter does not provide an exhaustive review of evidence, but builds its analysis on the basis of examples drawn from a wide variety of different contexts across the EU. Sources of evidence include secondary research, interviews with policy evaluators and academics in eleven Member States (France, Germany, Spain, Poland, Slovenia, UK, Ireland, Malta, Sweden, Finland, Denmark) and findings from Mid-Term Evaluation of RDPs collated for the meta-evaluation (in progress).

A range of measures within the current CAP have the potential to enhance agricultural competitiveness. Many also support innovation, although this is not yet set out as a core objective of funding either under Pillar 1 or Pillar 2 of the CAP. Measures under Axis 1 of the European Agricultural Fund for Rural Development (EAFRD – Pillar 2) are of particular relevance, as their core objective is 'to improve the competitiveness of the agriculture and forestry sectors'. For that reason, we begin the inventory by considering these measures along with the other measures of Pillar 2 (section 2.2), before moving on to assess Pillar 1 of CAP (section 2.3) and then covering other policies which may have significant effects (2.4). The analysis is also supported by three specific case studies (in Annex 2) of 'instruments' or functions which are likely to increase in significance as a result of the reform process: the use of risk management, adding value in supply chains, and collaborative partnerships to increase territorial coherence and facilitate co-ordinated use of different funding sources. We conclude with an overview of key findings.

2.2. Rural Development Policy (Pillar 2 of the CAP)

The second Pillar of the CAP currently absorbs 21 per cent of the EU-funded financial resource for the CAP (COM (2011) 571: European Commission, 2011c). In addition to this, Member State co-financing means that overall, this element of the CAP will result in public expenditure of around €150 billion over the full programme period 2007-13. For the new Member States in particular, the scale of budget devoted to Pillar 2 in this period may be equal to or greater than that available in Pillar 1, whereas for most of the EU-15 (with the exception of Austria and Finland), Pillar 1 absorbs the majority of CAP expenditure.

The Community Strategic Guidelines (CSG) for rural Development[2] highlight the need to improve competitiveness of the agricultural sector to meet evolving market demands through embracing 'new approaches, technologies and innovation'. However this statement, and the text which follows it, provide only general guidance to Managing Authorities as to how this need should be provided for, within RDPs. The tools with which such a goal is pursued are contained within the individual axes of the Regulation itself.

For delivering sustainable competitiveness and innovation, the Strategy Guidelines suggest that the measures in Axis 1 (Improving the competitiveness of the agricultural and forestry sector) are the primary mechanism; however, evidence suggests that the combination of measures used for these purposes varies significantly between Member States and regions (Dwyer et al, 2008; Dwyer et al, 2009).

Within the Pillar 2 framework, Axis 1 and 2 receive the largest funding, both in terms of EU subsidies and co-financing, reflected also in beneficiary uptake of Pillar 2 measures. Based upon planned EU expenditure for the EU-27 as agreed in 2007, the ranking of measure spend was as follows (Dwyer et al, 2008):

[2] Council Decision 2006/144/EC

1. Agri-environment measures (24%).
2. Payments for areas with natural constraints (Less Favoured Areas; mountains and other areas – 15% combined).
3. Farm modernisation aid (9%).
4. Adding value to agricultural and forestry products (6%).
5. Agricultural and forestry infrastructure (including irrigation – 5%).
6. Village renewal and support for cultural heritage (4%);

- with the remaining 37 per cent of expenditure split between all other measures.

Emerging evidence of actual expenditure (Table 1) suggests that axis 1 in particular has assumed prominence among the new Member States, while axis 2 does indeed dominate within the RDPs of the EU-15.

Table 1: Overview of Pillar 2 funding allocations and selected expenditure to date

AXIS	REGION	REALISED (ACTUAL) EXPENDITURE 2007-2008-2009-2010		PROGRAMMED EXPENDITURE 2007-2013		EAFRD % ON TARGET	TOTAL PUBLIC % ON TARGET	% OF PROGRAMMED TOTAL EAFRD %	% OF PROGRAMMED TOTAL PUBLIC %
		EAFRD (€ M)	TOTAL PUBLIC (€ M)	EAFRD (€ M)	TOTAL PUBLIC (€ M)				
1	EU27	9,038	14,953	31,655	50,524	28.6	29.6	34.2	33.8
	EU15	4,543	8,990	17,042	31,234	26.7	28.8	30.1	30.3
	EU12	4,495	5,963	14,613	19,290	30.8	30.9	40.6	41.5
2	EU27	18,615	32,461	42,448	71,158	43.9	45.6	45.9	47.6
	EU15	14,011	26,710	29,851	55,347	46.9	48.3	52.8	53.7
	EU12	4,604	5,751	12,597	15,811	36.6	36.4	35.0	34.0
3	EU27	1,962	3,082	12,747	18,798	15.4	16.4	13.8	12.6
	EU15	1,096	1,953	5,535	9,386	19.8	20.8	9.8	9.1
	EU12	866	1,129	7,212	9,412	12.0	12.0	20.0	20.3
4	EU27	501	827	5,675	9,074	8.8	9.1	6.1	6.1
	EU15	425	732	4,123	7,119	10.3	10.3	7.3	6.9
	EU12	76	95	1,552	1,955	4.9	4.9	4.3	4.2

NB: Figures for the outermost regions are not included.
Source: EC (DG Agri) published figures from Annual Progress reporting by Member State (2011).

The sections that follow briefly consider the potential for EAFRD axes to contribute to sustainable competitiveness and innovation, as well as the evidence of their actual contribution to date, based upon existing literature and selected interviews.

2.2.1. Axis 1 measures

2.2.1.1. Overview

The overarching objective of Axis 1, as set out in Council Regulation 1698/2005 is "to improve the competitiveness of the agriculture and forestry sectors". The 16 measures in Axis 1 can be divided into 4 groups:

- Those to enhance and adapt human potential (measures 111, 112, 113, 114, 115)
- Those to enhance and adapt physical potential (121, 122, 123, 124 125, 126)
- Those that can enhance the quality of agricultural production (131, 132, 133)
- Those which continue tools dating from the 2004 Accession (141, 142).

Examining planned and actual expenditure on these measures, the farm modernisation measure (121) accounts for 11% of total planned public RD expenditure for 2007-13: double any other Axis 1 measure. Between 2007 and 2010, expenditure in axis 1 was indeed heavily concentrated upon spending on measure 121 (43.8% of all axis 1 spend), followed by measure 123 (adding value, 13.5%) and measures to assist young farmers and encourage early retirement (around 10% each). Figures on expenditure patterns are also available by Member State, emphasising the significance of modernisation funding within the new Member States, in particular.

Almost all of these measures have potential to be used to promote *competitiveness in a sustainable way*, taking account of social and environmental needs and priorities as well as focusing on the economic development of the holding or the food chain. A number of the measures make specific mention of environmental objectives, within the Regulation:

- Measure 111 (vocational training) can "include training to develop …. Awareness in the fields of …. Sustainable management of natural resources".
- Measure 114 (use of advisory services) aims "to the sustainable management of forest and farm holdings, at minimum to (meet) EU cross-compliance requirements…"
- Measure 121 (farm modernisation) provides support for "tangible or intangible investments aimed at modernising production techniques, including …. improving the environmental …. status of holdings."
- Measure 123 (adding value) supports investments which can "promote the processing of products for renewable energy' and 'improve environmental protection".

Similarly, all measures have the potential to promote *innovation* in practices and techniques, in the senses discussed in section 1. Specific reference is made to promoting innovation, or developing expertise in new technologies, in the regulatory texts for vocational training (111), farm modernisation (121), adding value (123), cooperation in development of new products (124), infrastructure development (125) and restoring agricultural production potential (126).

Examples of ways in which measures have been used to promote sustainable competitiveness and innovation are summarised here, as documented in the ENRD Contact Point's project database, highlighted in EU Rural Reviews (http://enrd.ec.europa.eu), as well as in the background information for the ENRD TWG3 report on public goods, and the

2010 IEEP report for the EC on the same topic (Cooper *et al*, 2010). However, the degree to which this occurs in practice for any Axis 1 measures is dependent on the way in which Member States choose to apply them in RDPs, including details of their targeting, eligibility criteria and other considerations (see section 2.2.2).

Improving the mechanisation and modernisation of farms (measures 121 / 125)

- Upgrading farm infrastructure, for example improving storage facilities for waste or nutrient management; upgrading or installing livestock housing and handling facilities (eg winter housing to keep stock off the land overwinter / housing with improved energy efficiency, reduced emissions, etc).
- Installation of anaerobic digesters and photo-voltaic panels.
- On-farm water saving devices; other input saving /efficiency investments.
- Investments in machinery, e.g. to allow more efficient spreading of manure / fertilisers, or precision farming equipment.
- Investments in off farm infrastructure including water management/storage facilities and/or new irrigation infrastructure, such as drip irrigation, etc.

Training and advice – building capacity (measures 111, 114, 115)

- Training in the more efficient use of fertilisers (eg FR, AT, IT, LV, RO) – sometimes this is made a condition of other kinds of support (e.g. modernisation aid), to ensure adequate farmer uptake;
- Training and information relating to energy efficiency, opportunities for generating renewable energy and developments in relation to environmental technology (e.g. in BE, NL, SE, UK).

Perhaps more fundamentally, training and advisory initiatives, as well as support to producer groups, help to build farmer and/or sector capacities in respect of improved business management and development skills, which then facilitate improved sustainability and productivity.

Improving product quality / processing and marketing (measures 123, 124, 132, 133)
There is less information available on the extent to which these measures have been used in ways that benefit the environment. Measures for adding value (123), and meeting standards based on Community legislation (131) have been used in some RDPs to promote food products (mainly livestock-related) that are produced using traditional breeds and environmental management practices. It can also be used to establish quality and traceability policies for products (c.f. ES, IT), which sometimes have sustainability benefits. The measure promoting co-operation the in development of new products (124) has been used in some RDPs to improve the energy efficiency of production, the management of waste, and to incentivise the processing of non-food products into bioenergy.

Semi-subsistence farms –measure 141
In the same vein as the discussion for axis 2 (see section 2.2.3), it is possible that aid for semi-subsistence producers has a local positive, but sectorally neutral or marginally negative, impact upon competitiveness. At EU level, its impacts are likely to be negligible.

Fewer examples are apparent in relation to how the current Axis 1 measures are used for innovation. Some relate to cooperative approaches to developing new products and processes (measures 123, 111, 114), or in relation to the introduction and application of new technologies under the modernisation measure 121. Support for producer groups was also intended to have benefits in respect of product quality and thereby farm performance.

The issue of raising competitiveness became one of the key priorities of the rural development programmes in the new Member States during the accession period, accounting for between 35% and 65% of total SAPARD and early RDP funds, per country. Although comprehensive programmes included support to investment in agricultural holdings and to the food processing industry, direct support for innovation was not apparent. In the period from 2000 to 2012, the region received a strong financial injection of public funds for development and modernisation of agriculture. According to estimates, more than €20 billion of EU and national funds were invested for these purposes. This is a huge investment, which should contribute significantly to raising competitiveness in the entire agro-food chain but at present, clear evidence to demonstrate this is lacking.

Early oversight from the Mid-Term Evaluation of RDPs for all EU-27 countries suggests that evaluators have been able to calculate the economic effect of Axis 1 measures on the gross value added of agriculture in around one-third of cases, and that overall, positive impacts on productivity have been noted in the majority of RDPs (early indications from the evaluation, pers comm). However it is not possible to benchmark these findings in order to assess the significance of RDP support, in this respect.

2.2.1.2. Contrasting strategies

Broadly speaking, it is possible to identify two or three main approaches taken by Member States under Axis 1 to facilitate agricultural competitiveness, giving varying attention to environmental sustainability within that process. The first and probably most common approach is a strong focus on the modernisation of individual farm holdings, using the farm modernisation measure (121) as the main instrument to achieve this. The approach is particularly evident among New Member States, as well as southern and smaller EU-15 regions (Spain, Portugal, Greece, some parts of Italy, Wallonia, Luxembourg), often but not exclusively reflecting territories where farms are generally smaller and/or less well endowed with capital equipment and modern management technologies, compared to other parts of Europe. It may be complemented by public investment in agricultural infrastructure, such as for irrigation, drainage or land consolidation.

In these situations, the principal argument is that modern equipment enables improved efficiency which in turn improves capacity to compete. However, the degree to which this strategy actually facilitates enhanced competitiveness, still less sustainable competition, is heavily dependent upon the design and delivery of the measure; including the groups to whom it is targeted (or not, in which case the groups who succeed in obtaining support are relevant to consider); the 'flanking' provision of advice or other means to improve the quality, sustainability and appropriateness of investment plans; the degree of co-ordination of applications from individual farm businesses in order to minimise displacement and maximise sector effectiveness, and so on. Our analysis, drawn from reviews of experience in both longstanding and new Member States, questions how effectively aid is being used in these instances.

The second approach to encouraging competitiveness in agriculture relies more on the strategy of adding value to farm products to enhance their competitive success. This is commonly pursued by use of the measure for adding value to products (123) and related investments in more horizontally co-ordinated, shorter, or more vertically-integrated food supply chains, but advice, training and information measures can also be relevant. The main rationale for this strategy is to address farms' relatively limited influence upon food supply chains and thus the tendency for returns to the primary producer to represent only a small proportion of total value added, in the agri-food sector. By investing in processing

and marketing facilities which can offer an improved level or security of return to producers, by helping producers to come together and learning how to improve product quality and presentation, as well as to develop new marketing ventures and exploit new market outlets, the quality and resilience of agriculture should be enhanced. This approach is particularly favoured in a number of EU-15 Member States including Germany, Spain, Italy and, to an extent, the UK. Sustainability may or may not be incorporated.

The third type of strategy for the use of Axis 1 measures in the current programme period is their use in some Member States primarily to enhance the environmental performance of agriculture. This approach may be triggered by a pressing need to raise environmental and hygiene standards up to the level required under EU legislation (as in the case of certain new MS such as Malta, for instance, where long-term sustainability may or may not be assured). Alternatively, it may result from an overriding policy concern to tackle new, global environmental challenges including the protection of water resources and climate change mitigation and adaptation. Denmark, Sweden, the Netherlands and to a lesser extent, the UK, adopt this stance towards the use of Axis 1 funding, which generally incorporates sustainability considerations.

2.2.1.3. Strategy 1: Modernisation of Farms and Investment in New Equipment

The measure to facilitate the modernisation of agricultural holdings (121) is viewed as a key measure for the competitiveness of agriculture by some Member States (in particular the new MS but also in the EU15 such as Spain, France, Ireland, Belgium and Germany). Particularly in regions with small farms and low levels of capitalisation in farming, modernisation is viewed as a necessary step in addressing low yields and increasing efficiency on agricultural holdings. However, the degree to which innovation and sustainability are incorporated within this modernisation effort is highly variable.

In most of the new Member States, modernisation relies heavily on the simple transfer of existing, established technologies from Western European countries. 'Technological innovation' in this context mostly comes from Western European industry, and is therefore generally designed for the management of larger holdings (for example, the most common technologies for managing waste from cattle farms – slurry stores and pits, sheds with slatted floors and scrapers, pumping and separation systems).

During the accession process of new Member States, several reports were commissioned to ascertain the efficiency of new Member States agricultural sectors that found that they were limited by their obsolete mechanisation, low yields and poorly paid workforce (OECD; FAO; World Bank). They also noted a bimodal structure, in many countries: small and often subsistence or semi-subsistence holdings, representing rather more a social category than a market-oriented productive resource; and the former collective sector which is organised in the form of large, more capital-intensive companies (although the capital stock is frequently older than that in more developed EU-15 economies). There are also large agglomerates emerging: livestock breeding farms and large arable farms using economies of scale and the latest technologies. Among these groups, the large agglomerates tend to be better able to meet the criteria for receiving significant funding under measure 121 due to the comprehensive planning needed to build modern buildings such as stables, waste management and secure input storage facilities, even bioenergy plants. In such circumstances, a high degree of deadweight might be anticipated from the use of measure 121 (meaning that funds are given to beneficiaries who could have made the investments anyway, without public funding). This tendency has been noted across the EU, in respect of farm investment aid, in previous funding periods (Dwyer et al, 2008).

Also in the new MS, smaller-scale investments in equipment and mechanisation reach a wider circle of beneficiaries. But in this context also, the measures have weaknesses. Because the most common approach to funding is for paying agencies to issue periodic calls based upon simple eligibility criteria, funding can be granted to almost everybody, regardless of strategic needs; although small and subsistence farms tend to be excluded because they are not able to provide their own funds or are considered ineligible by the planners. This can lead to incoherent results – for instance, over-capitalisation in sectors where rapid farm enlargement is likely to follow, regardless (and therefore much of the capital equipment will soon be too small-scale); or the introduction of high levels of indebtedness on farms (due to the need to match aid with private funds) which increases their vulnerability to market shocks in what have become increasingly competitive and volatile product and input markets. This issue has been identified in respect of the dairy sector in Malta, for example. There can be knock-on effects, too. Often, farmers purchase expensive equipment, which they may get at relatively cheap prices due to the grants, but they speculate that they will be able to sell it after the compulsory period expires, which may push up the price of mechanisation on the market for other farmers.

Similarly to new Member States, in some other EU 15 regions where structural change has been relatively slow, obsolete mechanisation on holdings has been viewed as a key barrier to a competitive agricultural sector, and thus, the modernisation of machinery was prioritised under this measure. In Spain, sustainability has been considered in the process (e.g. in respect of improving the efficiency of irrigation or the handling of livestock wastes) and regional administrative organisations are suggested as the key actors who ensure this element of sustainability (Spanish expert, pers. comm.).

In Finland, eligibility for the farm modernisation measure is limited to dairy and beef cattle buildings, and glasshouse investments. These investments have contributed to higher productivity and competitiveness, but also to the adoption of new technologies that protect the environment and increase welfare (MTE, FI). However, there can be tensions between modernisation and the sustainable competitiveness objective as a whole, including its cohesion aspects. For example, in Mecklenburg-Vorpommern (Germany), one of the objectives for achieving a competitive sector (stated in the RDP) is the creation of jobs, particularly in the livestock sector. However, modernisation aid has actually reduced the workforce, by consolidation. The MTE argues that measure 121 targets rationalisation rather than growth, although it is unclear how this affects sector competitiveness.

2.2.1.4. Strategy 2: Adding Value

Evidence suggests contrasting experiences with this approach among the Member States – some have used it for more than 20 years whilst others have only recently begun to do so. In Spain the concept is relatively new to this programming period (2007-13). In spite of this, some instances of success in enhancing sustainable competitiveness are apparent, particularly in the wine industry, largely via the provision of supporting advice and training (see Box 1) – note that this example does not make use of measure 123. A criticism concerning this project, however, is that it has too great a focus on the larger farming co-operatives, thereby excluding individual holdings who could also benefit (Spanish expert, pers. comm.).

Box 1 : Added value wine in Spain

In 2009 WWF initiated a project that will run until December 2012 with a budget of €708,051 (€500,000 funded by EAFRD) (ENRD[3]). The project aims to improve management of forests, vineyards, and the sustainable use of local resources. Both the wine and cork industries were under increasing pressure from competitors with higher yields and lower prices. This was encouraging Spanish farmers to grub up traditional vines and replace them with irrigated varieties to produce higher yields. Furthermore, synthetic materials as alternatives for wine corks were putting increasing pressure on the 1,500 million €/year cork industry.

The purpose of the project is to add value to the wine by establishing a link between the sustainable management of cork oak groves and viticulture in these areas. The main instrument used to do this was providing guidance and training. WWF produced a guide outlining both generic practices for managing irrigated crops but also specific actions for irrigated vineyards (WWF, 2009). The guide examines the seasonal production cycle of vines in keeping with regional temperate conditions showing when water is most needed to improve yields and quality, thus restricting irrigation whilst reaching optimum output. The project also provided training for farmers and foresters to encourage good agricultural practices on vineyards, such as maintaining green cover field edges and enhancing natural pest control by natural predators. Training with foresters sought to conserve natural resources and avoid desertification by better tree management (WWF, 2011).

A particularly important element for sustainable competitiveness and innovation of this project is that it is cross-regional and successfully facilitates networks between different actors including researchers and processors, along the entire production chain (Spanish expert, pers. comm.). Unlike other projects funded by EAFRD, it is country-wide, focussing in particular on Castilla La Mancha, Valencia, Andalucía, Extremadura, Cataluña, Islas Canarias. This cross-regional approach is rare in Spain, where RDPs are regionally-designed and delivered (Spanish expert, pers. comm.).

Source: ENRD; WWF, 2009; 2011.

Many Mid-Term Evaluations of the current RDPs (in progress – these authors are involved) report a positive assessment of the use of measure 123 to promote sector competitiveness. For example, in Baden-Wurrtemburg, although the measure had low uptake, with only 37 funding cases between 2007 and 2009, there was an estimated average added value increase of €430,000 per case, demonstrating significant potential for enhanced competitiveness (IfLS *et al*, 2010).

Member States often associate adding value to agricultural products with alternative food networks (AFN) and short food supply chains (SFSCs). Shortening the food supply chain and promoting the re-localisation of food supply may encourage a "reconnection" between food producers and consumers and engender endogenous rural development. This is an important, developing trend within French niche markets; although such markets are generally well-established and not considered particularly innovative (French expert, pers. comm.). The re-generation of food supply chains at local and regional levels can be problematic: policies encouraging AFNs and SFSCs have been criticised on grounds of authenticity, sustainability and resilience (Ilbery and Maye, 2005a and b; Feagan, 2007; Kneafsey, 2010; Tregear, 2011).

A positive example of the use of measures 121 and 123 together was reported in Poland in the fruit and vegetable sector, where funding for modernisation and adding value was used to substantively increase production levels for a concentrate and puree producer. The modernisation plan included installation of new items of machinery, an automated reception line for preparing and packaging the fruits and vegetables, and a new cold storage unit. Such technologies are not particularly innovative, and yet implementation of this project saw an increase in production rates of 20 per cent. This led to the creation of six new jobs

[3] http://enrd.ec.europa.eu/projects/rdp_view/en/view_projects_en.cfm?action=detail&backfuse=jsview&postcard_id=2180

and reportedly provided more security for fruit and vegetable producers in the region, thus improving the competitiveness of both the individual business and of the region (ENRD, 2011). In assessing the reasons why this approach is recognised as successful, key elements appear to be the combination of strong advance planning – which was favoured by the fact that the beneficiary already had a track record of successful business development – coupled with accurate market knowledge pinpointing the opportunity to develop a particular product line, good links with the producer base through an appropriate and trusted collective management structure, and ongoing support to maintain and improve product quality and ensure throughput, once the new equipment was installed. Precisely these elements have also been highlighted as criticial in the context of developing successful added-value strategies for the islands of Malta and Gozo (Dwyer et al, in press).

2.2.1.5. Strategy 3: Investing in enhanced sustainability

As mentioned earlier, a few Member States have prioritised the application of axis 1 measures in current RDPs for the purpose of improving the environmental sustainability of farming practices. There are some reports that this strategy has achieved notable environmental successes – for instance, in respect of addressing water contamination problems in parts of England due to livestock pressures; however, its effects upon farming competitiveness are not yet apparent. In the area of improved soil and water management, evidence from research suggests that strategies for addressing soil structure and reducing erosion and phosphate transfer into watercourses can also result in cost savings for farmers (e.g. Withers et al, 2005); but as yet, there is no widespread confirmation of this from the areas where these projects have been implemented under the RDP. However, parallel work to assess the benefits to UK farmers of adopting integrated crop management systems, found significant financial benefits were noted by farmers themselves (Mills et al, 2011).

The Danish RDP is highlighted as a good example of a programme where sustainability considerations are central to the criteria for making investments under Axis 1, with the RDP as a whole an integral part of the broader, national 'green growth' plan. Denmark has also been a pioneer in respect of national policies to stimulate innovation (Dwyer *et al*, 2004).

In all these examples from Axis 1, eligibility and selection criteria play a key role in using structural measures (especially 121 and 123) to promote sustainability and innovation. Recent analysis carried out within the RuDI FP7 project (Mantino et al, 2010) provided evidence of the lack of criteria which take account of sustainability and innovation considerations, among a sample of 2007-2013 RDPs. Most countries did not fix any such selection criteria, relying only on traditional and well-consolidated eligibility criteria (age, residence, income, family status, children, education, training, holding size, experience). Where it does happen, scoring of applications for Measure 121 is on the basis of criteria related to the features of the project (7 cases out of 12). These criteria refer to:

- production sector, according to RDP priorities;
- compliance with EC standards;
- positive financial performance;
- quality of the project.

In two regions (Cumbria, UK, and Sicily, Italy) selection criteria were set for Measure 123 on the type of beneficiary (giving priority to women and/or young people) and on the environmental or structural features of the farm. In these cases, requirements serve several purposes: in Cumbria, the selection criteria favour innovative and strategic interventions by giving priority to farms undertaking new businesses and promising

significant programme outputs, and they encourage employment by favouring farms taking on a first employee. In Sicily, the selection criteria favour access to funds by small and medium-sized enterprises, the diffusion of integration in supply chains (priority to holdings participating in food-chain agreements), the adoption of quality systems (priority to enterprises realising more than half their production through quality systems) and the widespread diffusion of a 'legality culture' (priority to farms established on territories which were confiscated from criminal organisations). The only case of selection criteria related to the type of beneficiary was in Emilia Romagna (IT), where they encourage the integration of Measure 121 with Measures 112 (setting up of young farmers) and 114 (use of advisory services), to increase cost-effective targeting.

These examples serve to illustrate what might be regarded as good practice in designing delivery approaches which can discriminate between applications for funding, in such a way as to favour those with most potential to encourage sustainable competitiveness, bearing in mind the particular circumstances and needs of each territory.

2.2.1.6. The importance of advice and training (including discussion of the Farm Advisory System – a CAP pillar 1 requirement)

There are numerous examples from RDPs in UK, Denmark Malta, Sweden, Germany, Ireland and Italy where the training measure (111) has been used successfully to raise farmers' understanding of key aspects of sustainable agriculture, as well as to promote higher standards of resource management and improved profitability through better planning and continuous improvement of production processes. These examples can be found in evaluation reports from previous programming periods, as well as within the Mid-Term Evaluations for current programmes. The most important common feature of success appears to be the identification of topics and beneficiary groups where there is *both an environmental need and an economic gain to be realised* from appropriately targeted training. Less success is reported in cases where training either lacks direct economic relevance to producers, or is too general to address specific environmental concerns and opportunities in each local situation – this is apparently a problem in several of the new MS. MTE reports in many cases have found that uptake of support for training and advisory services has been lower and slower than was planned in RDPs, suggesting the persistence of significant barriers to uptake, among beneficiary groups.

Some experts and officials cite the apparent value of making certain types of training a condition of receiving other support under Pillar 2. This applies in the case of measure 214 (agri-environment schemes) in a number of Member States and regions (Ireland, Wales, UK, some German regions), and also for some applications of the farm modernisation measure (121) and support for young farmers (112). The aim is to ensure that those receiving management or investment funding understand the environmental and economic potential of their actions.

The **Farm Advisory Service** (FAS) is required under the horizontal provisions of Pillar 1 policy but it has been established and/or part-funded in many Member States (especially new Member States) through the training and advice measures of axis 1 in Pillar 2 (111, 114, 115). It is seen as an approach with significant potential for supporting sustainable competitiveness, but whose potential is only partially realised, to date (ADE et al, 2009). Farmers in some regions and Member States are obliged to attend training on cross-compliance and this is reported to have been beneficial in encouraging improved practices (e.g. in Malta). However, the EC-commissioned evaluation of the FAS stated that 'Currently, at MS level, for a large number of MS and regions, the FAS does not address

comprehensively the various needs of farmers, except cross-compliance advice', and furthermore:' The synergies/complementarities between the FAS and other interventions related to the CAP objectives under pillar one and two are potentially very high. The FAS is also coherent with broader Community interventions supporting the objectives of the Lisbon Strategy. At MS level, there is currently little evidence of concrete synergies'. Of some concern is the comment also that 'large farms, already familiar with existing advisory services, are the main users of the FAS' (ADE et al, 2009). Furthermore, in some Member States the FAS is apparently seen more as a policing instrument for cross-compliance than a genuine advisory service, in which case its usefulness for innovation will undoubtedly be limited. Considerable evidence demonstrates the necessity of advice coming from a trusted source and being seen as useful, by farmers, if it is to successfully facilitate positive behavioural change and successful farm adaptation to new challenges (Dwyer et al, 2007, literature review; Dwyer et al, 2004).

In Spain, "vocational training and information actions" and "setting up of management, relief and advisory services" were flagged as key initiatives needed for a sustainable, competitive agriculture (Ministerio de Medio Ambiente y Medio Rural y Marino, 2011). Yet, within the current framework, the advisory services tend to be viewed as a control mechanism rather than a source of advice for farmers, due to an emphasis upon their link to cross-compliance conditions (as required under the Regulations).

Another example where the role of advice and training is viewed as important for sustainable competitiveness is in France. Under Axis 1, the French RDP has developed a hybrid measure (111b) on information and extension of scientific knowledge which is specifically intended to mobilise innovation in the agricultural sector. However, it is very poorly implemented with uptake in only 5 regions. The main reason for poor uptake is felt to be that the RDP is designed at a national level with complex rules, yet co-financing and implementation is organised at a sub-regional level, making it difficult to access, and achieve consistency. It is also noted that it is difficult to measure successful outcomes of such funding (Épices *et al*, 2010).

Developing the role of the internet and other innovative forms of communication to advise farmers is favoured by some experts. In Spain, there is felt to be a generation gap between young and old farmers and that generally speaking, young farmers are more receptive to technological change and innovation, particularly in methods of communication and the use of information technology. There is a particular emphasis on the targeting of enhanced management training for this generation and it was suggested that this would be more effective in facilitating sustainable competitiveness, if linked to the measure for setting up of young farmers (Spanish expert, pers. comm.).

In France, as in several other Member States, there are many examples of farm advisory services operating outside of the CAP Pillar 1 and Pillar 2 frameworks. Keenleyside et al (2012) reviewed advisory services for agri-environment schemes in selected Member States. In many cases, advisory services were established decades before the RDP was introduced and thus they are not eligible for support under measure 115. Equally, although they could in theory receive support under measure 114, the linking of this measure to advice on cross-compliance requirements means that it is generally viewed as appropriate only in new Member States, where such advice was previously lacking. In some cases, advisory services receive specific and targeted support for offering training under measure 111, but this is generally limited in time and in scope.

Among the variety of advice sources, some services are state-funded, some funded through state and NGO collaborative partnerships (as with the Chambres d'Agriculture in France, similar institutions in many German regions, also Austria, Slovenia), while others are membership organisations supported by environmental NGOs and farmers' associations. A final group of advisory institutions is fully commercial and owned and operated by private sector companies. As might be anticipated, commercial services tend to be more active in economically-developed regions and sectors characterised by large and relatively efficient farms, since they charge the full cost of advice provision to the recipient.

There is some evidence that knowledge exchange, innovation and sustainable competitiveness have been adversely affected by the demise of fully state-funded advisory services in several Member States, such as the UK (Dwyer, 2011). In a number of different situations and countries, sustaining adequate farm advisory provision has proven to be challenging during periods of severe public sector cuts. Yet in many instances, this can be a critical time for enabling successful adaptation in the sector (Dwyer et al, 2004, 2007).

It has been suggested by some experts (pers comm.) that the Farm Advisory System, as required under CAP pillar 1 provisions, is too weak to ensure sufficient provision of advice to the sector, and it must be revised if it is to support sustainable competitiveness effectively and enable innovation in agriculture, going forwards.

Also, it is the authors' experience that one of the biggest obstacles to effective use of these instruments is a lack of robust policy credibility, particularly among delivery agencies which also have responsibilities for audit, monitoring and control functions. Advice, information and training may be viewed as 'soft' approaches with uncertain and/or un-measurable impacts. They can also be associated with high 'administrative overheads', in the sense that the technical advisors that support an investment or collaboration measure may be counted as part of its overhead, rather than part of the outcome.

The need to improve the implementation of the advisory services measure (114) was raised in the Mid-term Evaluation for Baden-Wurttemberg, by linking this measure more closely to cross-compliance. In Sweden, the Mid-term Evaluation of the RDP noted a need to strike a better balance between financial support for specific actions and capacity building in the form of advice, implying that so far, there has been too much emphasis upon the former and not enough on the latter.

In new Member States, experts conclude that the under-development of a public research and extension network significantly affects the efficiency of support aimed at raising competitiveness. Producers have insufficient access to information, and available solutions are developed in other environments and applied to different social and natural conditions for agriculture without sufficient tailoring to local situations. The challenge for competitiveness in new Member States is not only the search for basic development solutions and their transfer, but also filling specific technological and organisational gaps, in each local context. The relevant institutions lack funds and sufficient human resources. Potential young academics apparently prefer to search for other types of employment as these professions are less attractive to them, not only financially, but also in terms of their status in the eyes of the wider public. Supporting a sector which still retains something of a 'peasant' image in certain countries and regions can be seen as an unattractive career option for aspiring scientists, technicians and 'animateurs'.

The creation of 'exchange networks', involving key 'actors' such as farmers, advisors, researchers, food operators and consumers, to transfer knowledge and encourage innovation in rural development measures, is highlighted as an essential ingredient of success, in local level evaluations of initiatives for sustainable agriculture. It is reported that there are interesting approaches in Austria, the UK and Denmark where farmers collaborate within 'Rings' and 'hubs': small networks, where farmers sit together with public or private extension agents to devise strategies for dealing with different issues of competitiveness and technology transfer (Mills et al, 2008). This seems to be a successful approach with wider potential as a model of good practice, among RDPs.

2.2.1.7. Other measures in Axis 1

Other measures within Axis 1 that can support the goals of sustainable competitiveness and innovation in agriculture include cooperation for the development of new products, processes and technologies in the agriculture and food sector (124) and support for infrastructure related to the development and adaptation of agriculture (125). The former is thought by experts to be a particularly important driver for innovation whilst the latter is viewed more as a mechanism for improving efficiency. Both are thought to have direct benefits for sustainable competitiveness, although experience so far suggests that the reality may be less positive than the *ex-ante* expert assessment.

For example, cooperation for the development of new products, processes and technologies in the agriculture and food sector was flagged by experts in France, Germany, England, Ireland and Spain (and in their respective RDPs) as an important mechanism for innovation in agriculture. However in all these cases, a severe lack of funding, and/or very low levels of uptake, are noted in the Mid-Term Evaluations of programmes in 2010. This may reflect a low priority for this measure within the Managing Authority, or barriers to uptake among farmers, particularly where prior experience is lacking and measures have low credibility.

Support for infrastructure (measure 125) has had a relatively high uptake in Spain when compared both to national and EU uptake of other measures in Axis 1. The key area of investments is public water infrastructure and is felt to support sustainable competitiveness via improved access to water. However, in Castilla La Mancha much investment was made to improve the water infrastructure, ultimately resulting in a massive increase in water demand as farmers irrigated permanent 'secano' crops (vineyards and olive groves) which do not need irrigation to survive, but whose yields increase substantially if irrigated (Beaufoy, 2001; Spanish expert, pers. comm.). To address this issue, it was suggested that more stringent environmental impact assessment and requirements should be linked with this measure and more broadly with water management in agriculture, to ensure that it supports sustainable competitiveness (Spanish expert, pers. comm.).

These two examples appear to be classic cases of measures which are conceived as important and valuable for rural development, based upon good evidence from previous programmes, but which fail as a result of *inadequate design and implementation processes*, related to insufficient institutional capacity and/or resourcing, within the responsible agencies. This lesson is particularly pertinent to the future rural development toolkit as set out in the draft legislative proposals: we therefore return to it later in this report.

2.2.2. Axis 2 measures

The overarching objective of Axis 2 is to improve the environment and the countryside, supporting the sustainable use of land and responding to society's increasing demand for environmental services. Axis 2 contains six measures directly related to agriculture.

Of these, the measures that may contribute most directly to improving the relative competitive position of farm holdings are the two *natural handicap measures (211 and 212)*. By providing compensation to farmers within "Less Favoured Areas" for natural disadvantages, as well as economic remoteness from markets, payments aim to ensure the continued use of agricultural land in economically more marginal areas, directly supporting the viability of these farm businesses (i.e. reducing their comparative economic disadvantage compared to farms elsewhere). Economists would note that in targeting more economically-marginal farms, these payments may lower the average productivity of the sector as a whole and therefore have a negative impact on national measures of 'competitiveness', without taking any account of public goods. Often, these areas are managed using predominantly extensive management practices which are beneficial for the environment. As a result the payments, if sufficient, may provide a foundation on which more focused incentives for environmental management, adding value to products, and/or encouraging sustainable diversification, can build.

The *Natura 2000 measure* (213) compensates farmers within Natura 2000 areas for additional costs emanating from mandatory requirements in these areas. Its impact upon sustainable competitiveness will be similar to natural handicap measures.

Evidence suggests that at present, the *animal welfare measure 215* is used to fund initiatives which are linked to securing or increasing market share, which could therefore be of benefit for competitiveness in those sectors where they are concentrated. Higher welfare farming systems may also represent innovations, in themselves, when compared to previous practices or sector 'norms'.

The *agri-environment* measure (214) and associated non-productive investment measure (216) provide compensatory support for farming practices that are environmentally beneficial and enhance the attractiveness and character of the landscape. They are not associated with increasing the competitiveness of the agricultural sector: indeed, by reducing the financial disincentives for more extensive farm management, many payments have the effect of reducing output per hectare, compared to the counterfactual situation. The payments in many places support the continuation of extensive systems and thus may have positive effects upon *these* farms' relative competitiveness, as well as overall minor negative effects on sector performance, just as in the case of natural handicap aids.

Environmentally-focused Axis 2 measures may have some potential to promote sector innovation. Some are used in an innovative way, particularly the agri-environment measure. Examples include co-operative approaches to the design and delivery of management, which can deliver landscape-scale impacts. In the Netherlands, local organisations of farmers and non-farmers (technical and environmental specialists, local community interests) work in close collaboration with each other and with local, regional and national agencies to integrate nature management into farming practices. First introduced in 1992, there are now over 100 cooperatives in existence and in 2004 these included 10 per cent of all farmers and 40 per cent of agricultural land (Cooper et al, 2009). Also, the piloting of outcome-based approaches to AEM offers enhanced scope for farmer-led innovation in environmental management, for example in Germany in relation to

the preservation of species-rich meadows, with schemes operating in Baden-Württemberg and Lower Saxony; and collective approaches for example on common land, where individual farm-level agreements are difficult to secure (Jones, 2011).

Agri-environment is in many ways an experimental measure, and its enduring impacts upon farm businesses are still being explored. From accumulating evidence (e.g. ECA, 2011; Siebert et al, 2006), agri-environment schemes may provide a stimulus to farm-level innovation by changing farmer perspectives on the potential importance and value of environmental features and resources on the farm, helping to generate new ideas for business development. These include adding value to products, encouraging tourism activities, diversification activities that use the environment as a unique selling point, and so on. The clearest example of such a link can be seen in the use of the measure to support organic farming, where conversion offers farmers a differentiated product with opportunities for niche marketing and distinctive value-added product development.

In the UK and Germany, some studies indicate positive effects upon rural employment and farm family incomes, from agri-environment agreements plus non-productive investment aids. For example, a study in England (UK) showed that, for every £1 of Environmental Stewardship (AEM) payment to the beneficiary, £0.26 is generated off-farm in the local economy and over a four year period, around 665 full-time equivalent (FTE) jobs in the local economy were created, of which 530 FTE were through direct employment of farm workers, contractors or advisors stimulated by the AEM (Mills et al, 2010).

Notwithstanding this discussion, it should be noted that there are also many examples – most likely the majority – where the agri-environment measure shows few signs of stimulating increased innovation or competitiveness, and seeks rather to maintain longstanding or traditional farm practices which are beneficial for the environment, but which have lost their economic rationale. In these instances, questions may still remain about the long-term viability of these systems and practices, not least because axis 2 payments are rarely sufficient, on their own, to guarantee survival. This points towards the need for broader solutions in which axis 2 is part of a wider package of measures, rather than viewed in isolation.

2.2.3. Axis 3 measures

This Axis includes a number of measures anticipated to have a role in promoting sector competitiveness and innovation, despite the fact that it also contains several measures which only support non-farm rural enterprises. Most obviously, the farm diversification measure (311) can be used to support new business ventures (e.g. farm shops, tourist attractions, novel products, catering/hospitality or contracting /construction work) which may complement and assist sectoral performance: on the other hand, some kinds of diversification divert management skills, labour and capital resources from the farm business, which could have negative impacts upon performance. These measures are sometimes controversial amongst farmers who have not been persuaded that such economic diversification is in the long run interests of viable rural economies where farming is often a part-time activity. On the other hand, a pattern of diversified farming and pluri-activity is a well established feature in some regions of Europe (e.g. NW Austria, some parts of Italy).

Expenditure on farm diversification aid from 2007-2010 has totalled €1.489 billion for the EU-27, of which around €650 million has been in the new Member States. However, overall,

EU-27 expenditure on this Axis is running significantly behind schedule, in contrast to the rate of expenditure on Axes 1 and 2.

Whilst not supporting farm businesses directly, measures which contribute to rural infrastructure and transport (321) can be important for sectoral competitiveness. The most obvious example is broadband improvements, which offer potential efficiencies to many farm businesses, or the improvement of rural roads used by farms to transport their goods to and from markets. Indirectly, also, investments to improve villages or support rural tourism and crafts, by attracting more people into a local area, can have positive impacts upon those farms that sell their products locally; and measures that enhance the quality of life in rural areas may help farms to source local labour – for example, where they offer part-time, non-farm employment which can be combined with on-farm work.

2.2.4. Axis 4 measures – the LEADER approach

The LEADER legacy in Europe includes a strong emphasis upon fostering innovation and the local competitiveness of rural economies, including aspects of farming competitiveness. Whilst not universally established as an effective mechanism, LEADER groups in some areas achieved notable successes in rural development during the 1990s, including agricultural as well as broader actions (Lukesch, 2003) In the archives of the LEADER II observatory[4] there are many examples of LAGs supporting agricultural innovation in environmental and economic terms. During the 2000-06 period, LEADER+ had a funding theme on "adding value to local products", which generated some good examples of innovation and sustainable competitiveness (e.g. many were used at the European Commission's Salzburg conference, 2003, as examples of good practice[5]).

However, the mainstreaming of LEADER in Axis 4, in the current programming period, led to significant changes in its focus across the EU. The range of purposes for which Local Action Groups (LAGs) can give aid has narrowed and is commonly confined to Axis 3 measures. In some cases, only non-agricultural measures are available to LAGs. As a result, it seems likely that current LEADER funds fewer projects supporting sustainable competitiveness and innovation in the agricultural sector.

It is interesting that the new Member States (and candidates) presently show more interest in the formation of local partnerships for LEADER approaches than in overall support to agricultural development (Erjavec, pers comm.). It is an apparent contradiction that on the one hand, farmers still pursue early capitalist methods of farming and face a real problem of rural poverty (despite often high spending on axis 1 measures), but on the other hand structures are being established for "using endogenous potential" in these areas. This pattern may reflect a relative lack of joined-up thinking and/or common understanding between local communities and Managing Authorities, in respect of the most effective targeting of resources.

A distinctive feature of LEADER as a funding approach is the notion of new, multi-sectoral partnerships building local development strategies, something which in itself has been shown to be a source of innovative thinking and actions (Knickel and Kroger, 2006; Shucksmith, 2009). Whilst the funding devoted to LEADER-style approaches remains only a small part of overall Pillar 2 budgets in all Member States, its significance in this respect is recognised in a variety of ways, in the Mid-term Evaluation reports.

[4] http://ec.europa.eu/agriculture/rur/leaderplus/index_en.htm
[5] http://ec.europa.eu/agriculture/events/salzburg/index_en.htm

2.2.5. The importance of measure-packages, integrated approaches and networking

Analysis of the existing RDPs in respect of single measures or axes risks ignoring one of the most significant instances of "good practice" in supporting sustainable competitiveness and innovation. This is the approach of combining measures either within or between axes, into packages which are designed to stimulate change in a co-ordinated way, within micro-regions and/or in respect of particular sub-sectors of agriculture targeted by the RDP.

The design, oversight and implementation of measure-packages for *agricultural sub-sectors* has been termed the "filière" approach, and has had marked success in some parts of France, Italy and Germany, improving farms' competitive success in markets by enhanced supply chain efficiencies and/or added value products. The use of integrated packages of measures to pursue local strategic goals of sustainable competitiveness is also seen as critical for ensuring the continued viability of High Nature Value (HNV) farming in many parts of central, southern and eastern Europe (Poláková et al, 2011). These types of package have potential to contribute positively to sustainability, especially if environmental experts or stakeholders are involved in their design.

Territorial approaches were among the first experiments in integrated project design and implementation that used different measures or funds. Many offer a combination of measures in order to promote local areas as attractive venues for tourists, with a range of high-quality providers of food products, places to stay and to eat, and leisure opportunities. Because these require many years to develop as a fully integrated "offer", most date from earlier programme periods (Peter et al., 2006, Von Münchhausen et al., 2010). But several current RDPs (2007-2013) have been innovative in adopting a territorial approach, or strengthening the importance of this approach (e.g. Portugal, Ireland, some Italian and French regions). Analysis of cases (Mantino, 2011) reveals interesting trends:

- There is growing interest in designing and experimenting with territorial approaches within the RDPs, in different Member States and regions.
- These approaches frequently involve protected areas, regional and national parks, as they already pursue environmental, economic and social goals in a local strategy.
- This logic is reflected in the mix of eligible measures in the local plans (from Axis 2 measures to a wide range of Axis 3 measures and some Axis 1 measures).
- The model of partnership approved by the Managing Authorities (MA) and the selection criteria for funding are different from the classic Leader model: more flexibility is allowed in the relationship between individual partners, and with the MA.
- In some cases, there is a close relationship between these new partnerships and any LAGs which operate in the same territory, to foster synergy and avoid duplication.

Table 2: Relevant integrated territorial approaches in the 2007-2013 programming period

THEME	TYPE OF PROGRAMME / SCHEME	TYPE OF AREA	SCALE	MEASURES AND FUNDS	TYPE OF GOVERN-ANCE
Natura 2000 and environ-mentally valuable farmland	Integrated Territorial Intervention (ITI) within Portuguese RDP	Specific territories designated on natural, landscape and/or heritage grounds: Douro River region & 8 areas in SPA and National Nature Parks, Portugal	Sub-regional: small scale	214 AEM, 225 FEM, 227 non-productive investments in forestry, 323 rural heritage conservation. Other funds: ESF for land register and mapping; LIFE+	Local support structure (different from LAG). Need of integration with LAGs interventions within the LAG areas.
Sustain-able develop-ment	Rural Development Programme	"Organised Rural Territories" in some regions of France e.g. Languedoc-Roussillon	Sub-regional: Pays, Natural Regional Parks	311 diversification, 312 micro-enterprise, 313 tourism, 321 basic services, 341.2 local development strategy	Charter of partnership (signed between the partners and government)
Valoris-ation of natural resources	Rural development Programme	Rural Integrated Projects for Protected Areas. Campania (Italy)	Regional and National Parks	125 infrastructure, 216 & 227 non productive investments, 321 basic services, 322 rural heritage, 323 village renewal	Programme agreements/ investment agreements
Environ-ment : water resources, soil, HNV, mountain landscapes	Rural development Programme	Integrated Area Projects (Veneto, Italy)	Sub-regional: Natura 2000, protected areas, mountain areas	213 Natura 2000, 214 AEM, 216 non productive investments, 221 Forestry payments, 227 non productive forestry investments	Private and public actors coordinated by a public Body (Province, Commune, other public actors)

Source: Mantino, 2011.

Also worthy of note here is the accumulating evidence of the value of effective networking as a vehicle for spreading good practice in rural development policy and implementation. Whilst there has yet to be any independent evaluation of the National Rural Networks set up for the current programming period, evidence from a number of Member States – including Italy, UK and Estonia - suggests that they have played a very valuable role in bringing stakeholders and policy makers together to discuss and reflect upon good practice in RD. In addition, several experts commented that the outputs and the discursive process of the Thematic Working Groups (TWG) of the European Network for Rural Development had been valuable in a similar way. However, it was also felt that the close relationship between TWG and Commission officials had potential to create some sensitivities, in a political context, which was not always helpful for policy learning.

2.3. Pillar 1 of the CAP

2.3.1. Overview of measures

The first Pillar, including both direct aids and market intervention, accounted for 79% of EU CAP funding in 2011. However, the distribution of these resources between the Member States is very uneven and, as noted earlier, this also affects its relative importance at national and regional levels, by comparison with Pilllar 2 (Dwyer et al, 2008). There are two broad categories of instruments within Pillar 1:

- direct payments under the Single Payment Scheme (SPS) which account for 85% of Pillar 1 resources and most (85%) of which are now decoupled from production;
- market support measures under the Single Common Market Organisation (CMO), which comprise the residual 15% of Pillar 1 funds.

The trend in CAP reforms since 1992 has been to increase "market orientation" and liberalisation, switching from commodity market support to direct payments, and then, following the 2003 CAP Reform, decoupling payments from production. These were explicitly stated by the Commission as changes necessary to get farmers to focus more closely on consumers' needs in the market and, in the process, to become more competitive, driven by the need to reorient support in conformity with WTO requirements. However, considerable latitude was allowed in the way that this was accomplished by the Member States, and there are also variations in how remaining market supports operate.

In the Single Payment Scheme, payment is based either on the historical payments received by each farmer in the reference period 2000-02, or allocated as a regional average flat-rate payment per hectare in defined regions. Most Member States chose to allocate the payments on an historical basis, though Germany, England (UK), Finland and Denmark selected a dynamic hybrid moving slowly to a regional average payment, and Northern Ireland (UK) adopted a static hybrid. The continued use of coupled payments, to a limited degree and for some regimes only, is also allowed. EU-15 were allowed voluntarily to switch (modulate) funds from Pillar 1 to 2, to help fund rural development programmes, although few opted to do this. Following accession, new Member States (EU-12) were offered the option of a Simplified Area Payments (SAPs) scheme, and resources for Pillar 1 payments could be topped-up by switching funds from Pillar 2 allocations – several MS have made use of this facility. The 2003 CAP Reform also included "Specific Payments", amended and extended through the 2008 CAP Health Check (Article 68), which enable Member States to use a limited share of Single Payment funds in targeted aid to assist specific types of farming for environmental or food quality purposes; to provide assistance for crop insurance; or to help in dealing with animal disease risk[6].

Annex 1 shows the choices adopted by Member States in implementing the Single Payment Regulation and, where relevant, Article 68. There are a great many variations in how direct payments are allocated amongst farmers. Because price supports had been very uneven between commodities, Member States produce very different commodity-mixes, and new MS payments are being phased in over time, the level of direct payments varies enormously between farms within and between Member States.

[6] Originally permitted under Article 69 of Council Regulation 1782/2003 and subsequently revised and extended as Article 68 of Council Regulation 73/2009.

2.3.2. Likely effects upon sustainable competitiveness and innovation

Both SPS and SAPS are decoupled from production, so theory suggests that they should not significantly affect competition or trade *within* the EU single market. However, a major driver in the CAP reform discussion for 2014-20 is the redistribution of national allocations ('national ceilings') for direct payments. In this discussion, there is a strong presumption that vastly different direct payments affect competition, at least indirectly, because they affect producer incomes. At the same time, it is evident that some of the targeted CAP measures – especially Article 68 - have an income support component to ensure the continuance of particular sectors in particular places (e.g. this is the case for Finnish and Slovenian supports for cattle producers). Again, this implies that the distributional impact of direct payments affects relative competitiveness.

There is a large evaluation literature on the economic and environmental effects of the Pillar 1 instruments and market regimes of the CAP. In sum, the dominant economic view is that the historic CAP affected resource allocation inside the EU and internationally, slowed structural change in agriculture, and contributed to environmental degradation. However, as the policy has been transformed in the last two decades, because of the wide variety of implementation choices made by Member States it is difficult to offer a thorough analysis of Pillar 1 effects, and there is no official or independent analysis of their impacts on sustainable competitiveness across the EU. We offer some basic assessment here.

2.3.2.1. Single Payment System

This system offers annual payments to farmers on condition that they respect a set of cross-compliance conditions. These are based upon EU and national regulation on the environment, animal welfare and food safety and nationally determined standards of Good Agricultural and Environmental Condition (GAEC), and thus vary between Member States (Alliance Environnement, 2007).

The effect of these payments on farmers' competitiveness and innovation depends on a variety of factors, including the size of the payment in relation to income from all sources, and on how the funds are viewed by beneficiaries. Three kinds of effect are suggested.

Income effect: Direct payments account for 38% of total farming income on average across the EU27, but in some Member States and some farm types (mostly in the beef and sheep sectors, for example in UK upland cattle and sheep farms), the payments can exceed total farm business income. The payments undoubtedly enable many farm businesses to survive (echoing the EC interpretation of competitiveness as continuing viability). However, to the extent that the annual payments encourage "dependency" behaviour, this may have a dampening effect on the entrepreneurial edge of farmers, discouraging development, adjustment and innovation. This effect could work directly as well as indirectly, if the payments encourage farmers to postpone their retirement. Ageing farmers are unlikely to be amongst the most competitive and innovative. If generational change is delayed by direct payments then they can be expected to slow structural change and reduce opportunities for innovation. However, these trends may favour the preservation of environmental goods and services, on such farms (Potter and Lobley, 2004).

Investment effect: Another view of the payments is that they are bound to be a transitory element and depreciate in value in real terms, so must not be included in day-to-day farm budgeting. If farmers take this view, payments could serve partially as a source of investment funds for restructuring and modernising, to increase long-term resilience. Some studies (Baldock *et al*, 2002) suggest that the income surety role of direct payments may offer farmers greater access to capital funds for investment from private sources, although the SPS is not always acceptable by banks as collateral (ELO, pers comm.). Also, there may be a simple liquidity effect of the payments on investment, in that the annual payment comes in a lump sum once a year, and thus can represent a form of short-term 'capital' which funds the purchase of more durable inputs. If the payment is guaranteed, it can be used, but if it is cut or curtailed (for example, by the farm failing a cross-compliance check), investment may fall. These aspects suggest a positive impact upon competitiveness, but this approach is possible only in situations where the payments are not critical to day-to-day financial survival (e.g. needed to cover basic variable input costs). An indirect effect of direct payments may also appear via the impact on land values and rents. Economic theory suggests that payments made on land will convert into minimum rents, and thence be capitalised into land values. Swinnen *et al* (2008) have researched this and found some strong association with *land rents*, particularly in those new Member States where there were no previous price supports to farming. However overall, empirically the impacts of direct payments on *land values* were small. Nonetheless, they might work in the direction of strengthening the collateral for borrowing of owner-occupier farmers.

Stabilisation effect: For farmers in Eurozone countries and perhaps particularly in the EU-15 where payments are based on historic reference levels, the support has been a relatively unchanging, stabilising element in farmers' receipts. This may provide some degree of confidence for business development, innovation and thus competitiveness, compared to an unsupported situation. But it could also enable survival among less efficient producers, lowering sector performance (this clearly depends upon the distributional impact of payments: if all farms benefit proportionately to their performance then this effect will be lower than if benefit is felt more by smaller, less efficient or more marginal farms). It is difficult *a priori* to establish whether the stabilisation effect on competitiveness is likely to be positive or neutral, on balance. There are also many situations which don't follow this logic: for farmers outside the Eurozone countries, or where payments are being redistributed over time, or where their value remains low by comparison with production incomes, or where there are periodic changes in modulation rates, incomes from direct payments may change significantly over time. In these situations, direct payments are less likely to be seen as income stabilising elements, although they may still contribute significantly to incomes.

Overall, the most significant influence of direct payments upon EU competitiveness appears related to the relative distributional impacts between Member States, regions and types of beneficiary. Because at the current time, the largest share of support payments remains directed towards those sectors and regions which experienced the greatest impact of cuts in guaranteed prices over the past 2 decades (i.e. the most productive regions and farms for arable, beef and dairy sectors), there is an apparent paradox that, with some exceptions, more 'income support' flows to the larger and more productive farms and regions in the EU-15 than to smaller, less developed or more marginal regions and sectors, particularly in the EU-12. At the same time, payments have been criticised for favouring large, non-farming landholders over active farmers who lease land on a short-term basis.

Those groups arguing for pillar 1 redistribution in the current reform package do so at least partly on the basis that the current pattern gives a relative competitive advantage to the EU's longstanding 'more favoured' regions, which is seen as inconsistent with needs.

Commodity support arrangements – the market regimes - were the backbone of the original CAP. Since 1991, each successive reform has gradually reined-in the market-linked commodity supports through a steady process of cutting guaranteed prices and simplifying and streamlining the CMOs, bringing the system gradually into a common, single Common Market Organisation, although differentiated tariffs still remain. It is the combined effect of domestic and border measures which determines the economic conditions for EU farmers. EU agriculture now operates in a more 'internationally-competitive' environment, although intervention maintains a safety net to cover times of exceptionally low product prices.

There are, of course, huge variations between specific Member States and commodity sectors. For example, after the collapse in farming in the new MS following the transition to the market economy there has been an increase in productivity and competitiveness as measured at national level. There are also other factors at work, in addition to direct payments which have been introduced gradually and partially in these countries; including significant funding for farm modernisation under Pillar 2. Elsewhere across the EU (particularly in the EU-15), there has been a contraction of publicly funded research and development (R&D) in agriculture, which may also be relevant.

Considering environmental sustainability, the view of the European Commission is that Pillar 1 payments contribute to the sustainability of European agriculture by securing better adherence of all EU farming to the baseline cross compliance regulations for animal welfare, the environment, and food safety. Some research evidence exists to support this view (Baldock *et al*, 2002, Swales et al, 2007). Farmers also interpret the payments as (partly) compensating for what are claimed as the higher environmental and animal welfare standards of EU production compared to that of other agricultural trading nations. Research is currently underway to try and quantify the higher costs to EU farmers of EU regulations[7].

For many of the EU-15 (except some southern regions of Italy, Portugal and Greece), the decades 1960-1990 were associated with a rapid rise in the productivity and output of EU agriculture, with degradation of many aspects of the environment (Baldock *et al*, 2002). Whilst the CAP's role in this is by no means simple or uniform, reforms since 1991 have seen production levels falling and, at least prior to the upswing in market prices around 2007-8 there were indications that the pressure of farming on aspects of the environment had abated: fertiliser and pesticide use rates had fallen, declining stock numbers meant that GHG emissions fell, and the rate of decline of farmland birds reduced. With the introduction and gradual strengthening of cross-compliance, as well as common provisions such as the Farm Advisory Service requirements, pillar 1 should explicitly contribute to aspects of environmental sustainability. However, NGOs continue to criticise what they believe are still relatively modest environmental safeguards (Birdlife/ELO, 2011). The new CAP proposals seek to take Pillar 1 'greening' further, as discussed in chapter 3.

[7] Study commissioned by DG AGRI entitled 'Assessing farmers' costs of compliance with EU legislation in the fields of environment, animal welfare and food safety, 2012/S 15-022807.

2.3.2.2. Specific Payments under Article 68

Analysis of the 71 schemes introduced under the Specific Payments options (Article 68) found the total extent of payments in 2010 and 2011 was about €1.5bn out of €40bn of total direct payments (i.e. about 3.8% of the CAP Direct Payment funds). Four countries made no use of the Article (Germany, Cyprus, Luxembourg, Malta, and UK outside of Scotland). The main purposes of aid are to support livestock production (30 cases), crop production (19 cases) and quality marketing (8 cases), while risk insurance, agri-environment, restructuring and organic farming each account for 5 cases or fewer.

A large number of livestock schemes are linked to maintenance of farming systems in vulnerable or fragile areas, so they are clearly intended to be a contribution to their viability. It is not clear to what extent there are management requirements on beneficiaries which ensure the environmental sustainability of farming practices – evidence for this is lacking, at present (see for example Hart et al, 2011; Poláková et al, 2011).

The schemes devoted to improving quality and marketing in theory should be contributing to sector competitiveness, as should those focused on restructuring. The risk management schemes may assist in creating a more stable business environment and thereby help competitiveness, or they may weaken the need to pursue improved competitiveness. Because of their significance in the legislative proposals for the CAP after 2013, we made a particular analysis of risk management measures in Italy, in Annex 2.

2.4. Approaches which may accompany CAP instruments

2.4.1. Information and awareness-raising as a stimulus to innovation and sustainable competitiveness

The potential for using information to help drive innovation in the agricultural sector to enhance sustainable competitiveness is of growing relevance to Member States, although there are relatively few examples of this being carried out in practice. Nevertheless, the Commission regularly funds projects and campaigns to help citizens to appreciate agriculture. In Sweden it is reported by experts that there is a 'lack of interest' from regional authorities towards innovative development in agriculture. It has been proposed that a new 'rural innovation system', which would establish links between the 290 Swedish municipalities, 21 counties, research universities and businesses, would be an effective tool in mobilising innovation in the agricultural sector (T Norrby, pers. comm.).

In Spain, it is felt that innovation in relation to consumer communication and marketing could bring significant advances for the competitiveness of added value produce and local food chains (Spanish expert, pers. comm.). An example of this can be seen in an Axis 4 initiative in France's Loire Valley; Touraine, where the focus for improving competitiveness is on improving consumer awareness and knowledge of local produce by holding workshops and producing a directory of seasonal local produce (ENRD, 2011).

In other Member States, the development of action plans for organic agriculture (some preceding, some in tandem with, the agreement of an Organic Action Plan at EU level) have tended to place significant emphasis upon the role of enhanced information exchange, particularly between producers and consumers, in stimulating innovation, growth in markets and enhanced competitiveness for the organic farm sector. In some regions, these Plans are now sufficiently established to demonstrate this value – for instance, in some

regions of Germany, and in England, UK; where organic markets and the volume and value of organic sales by domestic producers (as opposed to imported goods) have grown significantly in recent years.

The need for improved information campaigns is relevant to ensuring that Axis 3 is better equipped to support sectoral competitiveness. The Mid-term Evaluation for Baden-Wurttemberg maintains that Axis 3 is an important policy mechanism for boosting capacity in the agricultural sector, with particular reference to promoting innovative measures for women. In this context, the measures for micro-business start-ups, for farm diversification and for non-agricultural training and information, may all be very important, offering farm family members (women and young people) options for increasing their incomes and standards of living by developing new business ventures alongside the maintenance of agricultural production by the principal farmer. However, key to enabling the successful use of these measures in that context is the provision of information and help to review and assess business development options, as has been demonstrated with initiatives such as the successful 'Opportunities for farm families' programme, originally funded in western Ireland under LEADER (Dwyer et al, 2004). It is also important to note that the attempted scaling-up of this opportunities programme into a national initiative failed, as a result of inadequate attention to providing a high quality, dedicated advisory resource to support it (Farrell, 2008).

2.4.2. Other EU policy measures – the role of quality product labelling

The connections between agricultural competitiveness, quality food production and sustainability are relatively straightforward. Quality is an issue for all actors in the food chain, whether dealing with commodities produced to basic standards guaranteeing food safety or with high-quality food. EU farming can build on a high quality reputation to sustain its competitiveness and profitability. Specific EU quality schemes guaranteeing quality include:

- Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) for agricultural farm products and foodstuffs wine and spirits.
- Traditional Speciality Guaranteed (TSG) for agricultural farm products and foodstuffs.
- Organic farming products.

EU agricultural product quality policy complemented the earlier creation of Common Market organisations (CMO) in the 1960s and 1970s. Its aim is to meet the demands of European consumers (and citizens) for healthy food, more quality, environment and animal-friendly production methods, the maintenance of natural living conditions and care of the countryside. As early as 1985, a Green Paper suggested the "creation of the legal framework needed for the harmonization of the quality standards […], to facilitate […] marketing and consumer information". The basic ideas expressed in the Green Paper were taken up in the Commission guidelines "A future for Community agriculture" (EC, 1988). Where the Commission acknowledged that "general quality-linked protection of geographical indications, also covering origin designations" is needed. In 1991, the first EU legislation on organic farming was adopted. This was followed in 1992 by the first EU legislation on geographical indications, protected designation of origin and certificates of specific character, for agricultural products and foodstuffs.

In 2009 a Quality Policy Conference was organised by the Czech Presidency resulting in a Green Paper laying down strategic orientations (COM(2008) 641: European Commission, 2008). Some key points are given here, as lessons that should be relevant to a future CAP.

"… As globalisation spreads, products from emerging countries with low production costs are putting greater pressure on EU farmers. There is growing competition for both agricultural commodities and value-added products. Faced with these new commercial challenges, the EU farmers' most potent weapon is 'quality'. The EU has an advantage on quality given the very high level of safety ensured across the food chain by EU legislation... Quality is about meeting consumer expectations. The agricultural product qualities addressed in this Green Paper are the product characteristics such as farming methods used, place of farming, etc."

"… consumers increasingly pay attention to the contribution made by farming on sustainability, climate change, food security and development, biodiversity, animal welfare, and water scarcity. […] … farming is a key factor in the territorial development of regions, landscapes and valuable environmental areas... consumers with growing disposable income – in many parts of the world – are demanding taste, tradition and authenticity in their food as well as the application of higher animal welfare standards... Instead of seeing these demands as a burden, EU farmers have a real opportunity to turn them to their advantage by delivering exactly what consumers want, clearly distinguishing their products in the marketplace, and gaining premiums in return. The EU's agricultural policy must support farmers' efforts to win the quality challenge."

"Sustainability criteria can also make an important contribution to the quality of the product and in meeting consumer expectations, such as:

- contribution of the product to the economy of a local area,
- environmental sustainability of farming methods,
- economic viability of the product and potential for export,
- for processed food products, the requirement that all raw materials must also come from an area surrounding the zone of processing of the product."

"The current EU quality schemes ... represent the cornerstone of EU quality policy. There are a number of candidates for further EU schemes, including product of high-nature value or mountain areas, welfare quality, an EU origin label and extension of the Ecolabel scheme to processed agricultural products. Innovation could also be encouraged."

"For consumers seeking quality products... some of the main drivers of innovation include:

- a desire for consumers to reconnect with agriculture and give preference to local and seasonal products from farming systems that sustain both nature and society;
- the environmental concerns of combating climate change, managing natural resources such as water and soil more efficiently, and preserving biodiversity;
- promotion of nutritional qualities of foodstuffs;
- societal concerns: the Fair Trade label is an example of a scheme based on the strategic intention to help producers and workers... move from a position of economic and social vulnerability to one of security and economic self-sufficiency;
- animal welfare: private schemes promoted by animal welfare groups and farmers working with retailers and the scientific community... generally certify that higher than the minimum requirements are met, for marketing purposes."

These points neatly summarise the ways in which product quality policies, designed to work synergistically with other CAP tools and measures, including support for advice, training and enhanced consumer-producer information, as well as investments in adding value, can help to achieve sustainable competitiveness and promote innovation, in the farm sector.

Some stakeholders argue that social, environmental and other standards laid down in EU law negatively affect agriculture's competitiveness. However, it must be remembered that the aim to guarantee minimum quality of all European products is a long-established societal requirement. It is to ensure basic ethical standards as well as, for example, food safety needs. European standards also facilitate the operation of the internal market and international trade. Given that the EU is itself the largest market for food products in the world, it seems appropriate that European food production and supply chain standards should reflect societal expectations within that market, regardless of whether lower standards are acceptable elsewhere. In some areas – for example in the 'globalGAP' process which benchmarks quality standards for fresh produce across the world – the pre-existence of European standards had a beneficial effect (Macdonald et al, 2006).

The specific EU quality schemes mentioned above go beyond these standards, and are voluntary for producers. They act to ensure products are in conformity with retailers' and consumers' higher quality expectations and they generally attract price premiums in the market. The official EU schemes operate in the market alongside an increasing number of public and private certification and labelling schemes, including the French 'Label Rouge', the UK's 'LEAF Marque', the global organic standards of the Soil Association and so on.

Becker, T. (2009) distinguishes four clusters of countries: *a) the PDO/PGI-oriented Mediterranean countries, including Portugal, with Italy being diversified and very highly quality oriented; b) countries with a clear orientation towards food quality assurance systems including Germany, the United Kingdom, Ireland and Belgium; c) The Netherlands and Luxemburg with an orientation towards diversification and quality; and d) a fourth cluster consisting of Austria and the Scandinavian countries, which are organic-farming oriented. The Eastern European Countries of the Czech Republic, Poland, Slovakia, Hungary and Slovenia are catching up with respect to PDO/PGI products. The Czech Republic, Slovenia and Estonia have high shares of farmland used for organic production, while Slovakia, Hungary, Latvia and Lithuania have moderate shares. In Poland, a very low percentage of farmland is used for organic production.*

This passage illustrates the differential influence of food and farming cultures, institutions and traditions upon the development and adoption of 'quality' as a key feature of agricultural production, across the EU.

2.5. Conclusion: the effects of current CAP and other key policies on sustainable competitiveness and innovation

The sections in this chapter have reviewed a wide range of experience with CAP and related policy instruments for the agriculture sector, assessing their relative success and failure in respect of promoting sustainable competitiveness and innovation. A number of general lessons emerge from this analysis, as summarised here.

Firstly, it seems clear that the CAP provides a varied policy tool kit with the potential to be used in the support and promotion of sustainable competitiveness in agriculture. However, the degree to which this objective is achieved in practice is evidently much lower than its potential. This is largely because of the balance of resourcing and priority that is given to

the different elements in that toolkit, as well as the extent to which tools are appropriately designed, targeted and delivered in ways which can maximise their overall impact.

Relevant instruments include very widespread and general measures such as the income support payments under Pillar 1, as well as highly targeted instruments such as specific aids for collaboration, training and investments in Pillar 2. Not all policy instruments involve financial aid – in the example of the product quality policies, we see how a policy simply enabling product differentiation can nonetheless generate significant financial incentives for producers and other actors in food supply chains. And not all policies explicitly target agriculture: in the examples of business supports under Axis 3 and capacity-building, information and promotion under Axis 4, we can see how measures which stimulate complementary economic activities can nonetheless offer benefits to the farm sector and thereby encourage greater resilience and competitive success.

The scale at which success in enhancing 'competitiveness' in a sustainable way is achieved is important. Maintaining farms through relatively general kinds of income support may be extremely important as an element in sustaining farming activity, public goods and local cultural value in marginal areas of the EU, but its value in more prosperous regions should surely be regarded more critically, when evidence suggests that more targeted packages using pillar 2-style support are more likely to deliver positive outcomes in respect of both sustainable competitiveness and innovation. It seems clear that while much attention is devoted in public debate to the scale of pillar 1 aids to the sector, these are unlikely to positively stimulate change towards more competitive or sustainable farming. At best, and if explicitly targeted for this purpose, they may help to sustain agriculture in forms and in places where it might otherwise cease to be financially viable. However, they may do relatively little in this respect currently, because their pattern of distribution largely mirrors the market drivers, except in respect of the targeted Article 68 and Pillar 2 aids.

This point is clearly under-acknowledged in the majority of debate surrounding the CAP reforms, at present. Almost without exception, interest groups representing the farm sector place more emphasis upon their perceived need to retain and/or increase pillar 1 support than upon any aspects of pillar 2, although support for continuing funds for physical investment is also a concern among the new MS, in particular. One reason for this lack of 'balance' in the debate undoubtedly concerns the considerably greater ease of access by most farmer beneficiaries to funding under Pillar 1, as compared to Pillar 2, such that one is guaranteed and immediate whilst the other is often costly and uncertain in both duration and scale of impact, because it frequently involves competitive or discretionary project funding. Such characteristics are frequently seen by potential beneficiaries as unnecessarily bureaucratic, while funding authorities may view them as important to ensure cost-effectiveness. These considerations suggest a need in future to seek to enhance the attraction of Pillar 2 to a wider range of farmer beneficiaries.

The other reason for prioritising pillar 1 over pillar 2 in the policy debate appears to relate to concerns about international competitiveness – both the EU's ability to compete effectively in global agricultural trade, and the relative ability of Member States to compete effectively in the internal EU market. Even in this context, the question must be asked as to whether decoupled income support represents the most cost-effective, environmentally-sustainable and resilient approach to deliver this goal, in the medium term, or whether a more locally-sensitive and flexible model could offer better value for money.

Two issues emerge from the evidence base as particularly relevant to the discussion on sustainable competitiveness. These are the role that can be played by mechanisms to promote greater cooperation/collaboration between measures and rural actors, and improved advisory and information services, both for farmers and their families and for those further up the food chain with whom they must interact, from processors and retailers to final consumers (Peter et al., 2006, Von Münchhausen, et al., 2010).

The value of territorially-appropriate, integrated packages of measures is highlighted in many cases, including economically prosperous and more marginal situations in the EU. Also, the significant potential of advice, information and capacity-building is confirmed. At present, these measures are under-utilised. There are a variety of barriers to success, including reluctance and/or lack of appreciation of their value by farmers; as well as institutional unwillingness (in managing authorities, paying agencies and delivery bodies) to invest in advice and training, related to perceived difficulties of demonstrating impacts, effective monitoring and control, as well as a lack of appropriate targeting and promotion. In these conditions, a greater emphasis upon using information, promotion, demonstration of good practice, enhanced financial incentives and increased learning by exchange and networking, to encourage more positive experiences, may be necessary.

In respect of key elements of success, there is evidence that approaches which go beyond the specific measures of the CAP and which can be linked with other funding and with non-financial incentives such as product quality policy, can also generate durable results.

These experiences also bring home the point that a toolkit, on its own, is insufficient to ensure policy success in meeting goals. The ways in which instruments are designed – their eligibility criteria, the approach to targeting, assessment of applications, flanking assistance (advice, information, etc.), as well as monitoring and follow-up processes – all have significant effects upon their performance. In particular, there is a need for much better use of eligibility and selection criteria in addressing issues of sustainability and innovation at beneficiary level. Evidence suggests that these goals have been inadequately taken into consideration when measures in Axis 1, in particular, were designed and implemented within most RDPs.

Tailoring of measures at the local level, particularly the degree to which territorial context is taken into account and the extent to which local knowledge and local actors can become fully engaged in policy delivery, is clearly a central element in determining what they can achieve. The Italian experience in particular (see annex 2, Basilicata) suggests that agricultural competitiveness is strongly linked to territorial competitiveness of the whole agro-food chain, not only in the most marginal and inland areas but also in intensively cultivated and highly productive plain areas. An integrated territorial approach offers more opportunities for successful rural and agricultural development than traditional approaches (Mantino, 2011). However, successful establishment of these approaches requires a high degree of trust within the public administration, between central authorities and local delivery structures. To avoid overly centralised and complex approaches by central administrations, governance issues could be clarified and defined further at EU level.

The need for and potential of improved advisory services and networks is also stressed. Advice and training are integral support mechanisms for sustainable competitiveness and sector innovation. The degree to which specific types of advice, capacity-building or promotion can succeed will vary by Member State and region, reflecting different pre-existing capacities and levels of public, institutional and sector understanding. The absence of effective national public-private infrastructure and investment for innovation and

knowledge transfer, which has further deteriorated since the beginning of the financial and economic crisis after 2007, is an important reason behind the lack of more integral development in many countries. In the new Member States of central and eastern Europe, knowledge formation at the national level is weak, in some cases even weaker than before the transitional period. Although public extension services, which are meant to assist smaller producers, exist, they are reportedly more engaged in assisting them to access public funds than in contributing to technological and organisational development.

At both national and European levels, capacity to measure sustainable competitiveness is questionable and was raised as a particular issue. An issue that was raised by an expert in Germany was the restrictive timeframe implied by the targets set for competitiveness, whereby short-term goals (measured in profitability, productivity, external trade etc) compete against longer term goals of sustainability. Experts comment that programme evaluations tend to be heavily bureaucratic affairs intended mainly to satisfy EU administrative criteria rather than providing meaningful feedback (this was also found in other studies, e.g. Schiller et al, 2010). Furthermore, there are not many analyses of comprehensive (social, environmental and territorial) effects available at the level of the entire region, only partial analyses. Such meso-scale, holistic analyses would be particularly relevant to assessing the effectiveness of measures in achieving sustainable competitiveness, and in exposing programming and implementing problems.

As this chapter has demonstrated, it is not possible at present to make a robust analysis of the impacts of CAP policy upon sustainable competitiveness across the EU, at regional, national or international levels. Further research in this area would seem to be a worthwhile investment on the part of the European Commission, so that it is able to monitor the policy's performance against its key goals.

3. THE POTENTIAL OF EU POLICY INITIATIVES TO ENHANCE SUSTAINABLE COMPETITIVENESS AND INNOVATION IN THE AGRICULTURE SECTOR

KEY FINDINGS

- Within the proposals for the new CAP 2014-2020 there are significant changes to both pillars. Assessing these for their potential to enhance sustainable competitiveness and innovation, it appears that the proposals for Pillar 2 are largely positive and potentially significant, whilst those for Pillar 1 and horizontal CAP measures are much less obviously so, for the EU as a whole. Changes to non-CAP policies for research, the dairy sector and the Globalisation adjustment fund are also mainly positive.
- In Pillar 2, the proposals offer potential but include insufficient safeguards on sustainability, and inadequate incentives to overcome already-evident conservatism in programmes' design and delivery, which mitigates against sustainable competitiveness and innovation. In respect of Pillar 1, more ambitious strengthening of positive aspects such as the Farm Advisory System and the greening options, would increase the likelihood that the proposals would deliver better against these goals.
- In respect of other policy developments, those for the dairy sector should promote competitiveness but do not sufficiently address sustainability, while those for research and adjustment could be more closely co-ordinated with the CAP toolkit.

Building on the critical review of the potential and actual experiences of using the current CAP and other policy measures in chapter 2, this chapter reviews the range of legislative proposals currently on the table to enhance agricultural competitiveness and innovation, in ways that are sustainable. The opportunities offered by different measures are noted, as well as any conflicts or risks to their achievement from other elements in the package.

The analysis focuses in particular detail on the CAP legislative proposals that were published by the Commission on 12 October 2011, and specifically on the proposals for the future of Pillar 2 (COM(2011) 627/3, European Commission, 2011d). However, the Pillar 1 proposals are proving to be by far the most controversial element of the overall package for the CAP, and elements of these are also assessed for their relevance to the focus of this study. In particular, the proposed new greening 'payments for agricultural practices beneficial for the climate and the environment' are considered; including the ecological focus area measure which is currently subject to strong criticism from farming organisations and some Member States as working against food security and competitiveness. Other Pillar 1 considerations include the move away from a historic basis for direct payments, the optional use of voluntary coupled support, and of critical importance as indicated in chapter 2, the expanded remit of the Farm Advisory System.

Beyond the CAP, other new policy instruments and initiatives offer potential to enhance sustainable competitiveness and innovation in agriculture: the milk package; the European Globalisation Adjustment Fund; and Horizon 2020, setting out the EU's strategy for research over the next multi-annual financial framework. These are also briefly reviewed.

3.1. Proposals for the CAP 2014-2020

We first set the strategic context for the draft legislative proposals, before assessing the specific proposals for Pillar 2 of the CAP, and then some key elements in the proposals for Pillar 1. We conclude by analysing the combined potential of the package as a whole. This assessment takes into account the Commission's Impact Assessment published before the draft legislative proposals, which gave more detail on the likely effects of key aspects of the proposed reform (EC, 2011b).

3.1.1. Context

The thrust of the 2014-2020 reform proposals is that the major change in the CAP should be to better distribute, target and green the current Pillar 1 direct payments. The commodity support system is to be further streamlined by the elimination of the remaining supply management (quotas). The major changes in the Rural Development (RD), second, Pillar are to better integrate it with other EU funding streams, to offer greater flexibility to Member States in assembling their seven-year rural development programmes, and to highlight the need for RD innovation through changes to the LEADER framework and a new 'European Innovation Partnership' approach.

In relation to the increased focus on innovation in agriculture as a goal of the future CAP, Commissioner Cioloş has made the following statements (Cioloş, 2011):

- "The agriculture of tomorrow is one based on knowledge. We need to be able to make more use of the results of scientific research and innovation and bring them closer to farmers. Often farmers do not have the means of applying technology to their farming practices…"
- "Farming is the main economic activity in a lot of rural regions in Europe. We need to begin injecting a new dynamism into this economic activity and enable people with ideas, however small, to put these ideas into practice."

In respect of the overall philosophy behind the reform package, the following quotations from the Commissioner seem especially pertinent to our study.

"The key aims of this reform are: to ensure that the competitiveness of all European farming safeguards our food security; to lay down the foundations for long-term competitiveness that is both environmentally *and* economically sustainable; to ensure that agriculture flourishes throughout Europe; and finally, a spearhead objective - to simplify the CAP."

(Presentation to the European Parliament, 12 October 2011)

"My conviction is that at the end of it (*the reform*), this policy needs to be well equipped to address the challenges of food security and climate change, to preserve natural resources and to maintain territorial balance across Europe. It should offer farmers more stability and a coherent tool-box to fight economic downturn and price volatility. It has to be more equitable, simpler and easier to understand."…
"We cannot win the battle of food security at the expense of permanent damage to our environment. European agriculture needs to sustain and reinforce its competitiveness on the basis of a productivity model that combines economic, environmental and social sustainability."

(Speech at the Oxford Farming Conference, January 2011)

These quotations neatly capture the Commissioner's understanding of what sustainable competitiveness and innovation should mean, within the sphere of CAP reform. We now examine how these understandings have shaped the detailed legislative proposals.

3.1.2. Pillar 2 of the CAP / Rural Development Policy

The new draft regulation for the European Agricultural Fund for Rural Development (EAFRD) has been re-structured by comparison with the current model. The approach gives much more flexibility for the available measures (which are now presented as bundles of measures) to be used in ways that meet ***six overarching Union Priorities*** (reflecting the priorities of the EU2020 strategy – see below) which in turn should contribute to three objectives: the competitiveness of agriculture; the sustainable management of natural resources and climate action; and the balanced territorial development of rural areas.

Although only one of the six priorities specifically mentions competitiveness (objective 2), several priorities emphasise activities that have the potential to enhance competitiveness, including those relating to human capital, to promoting food chain organisation and risk management, to encouraging economic development in rural areas and priorities focused on achieving environmental and climate goals. The same is true for innovation, although this has an even stronger emphasis now within the proposed legislative text as ***"all of the priorities shall contribute to the cross-cutting objectives of innovation, environment and climate change mitigation and adaptation".***

Although many of the measures that are currently available within the EAFRD are retained, merged and/or broadened in scope, there are new emphases, particularly in relation to collaborative working and capacity building for collective action and knowledge transfer. New measures have also been introduced in relation to risk management.

Taking forward the Commission's flagship initiative on the "Innovation Union", perhaps one of the most substantive new additions to the EAFRD promoting sustainable competitiveness and innovation, is the inclusion of the European Innovation Partnership approach for "Agricultural Productivity and Sustainability" and the associated prize for innovative local cooperation in rural areas.

Rather than the EAFRD having a dedicated strategic framework, as is currently the case with the Community Strategic Guidelines for Rural Development, the EAFRD is proposed to sit within a new Common Strategic Framework[8], covering all the main EU funds for which there is joint responsibility between the European Commission and the Member States: i.e. including also the Structural Funds (the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF)), and the European Maritime and Fisheries Fund (EMFF). This joint framework is to be planned to cover the programme period, for all programmes across the EU-27. The proposed legislation which lays down common provisions brings all the funds under a Common Strategic Framework (CSF) at EU level and transposes this principle at national level into a Partnership Contract (PC). The CSF and the PC provide new opportunities for coordination and integration and should be considered as two fundamental institutional innovations in the new EU policy framework.

The PC is designed to translate the Europe 2020 objectives into eleven thematic objectives and then into the stated priorities for each fund, at national level. It must identify the linkages between the Europe 2020 objectives and the six EAFRD priorities. The PC should

[8] As set out within COM(2011) 615 final of 6 October 2011 (European Commission, 2011e).

set out the main indicators and quantify relevant targets to be met at the end of the 2014-2020 programming period, as well as at "milestones", to achieve in 2016 and 2018. This must be done for each EAFRD priority, in order to assess the progress of the programme over time and to allocate the performance reserve of 5%.

Other key changes to pillar 2 can be summarised as follows.

- The former 4-axis structure and the minimum spending thresholds per axis have been removed, in favour of a structure focused around six new strategic goals. The scope and purpose of all existing measures are retained but they are consolidated into fewer, more flexible instruments, and there is an obligation upon Member States to use whichever measures they choose, to deliver against the new strategic goals for the period (i.e. no pre-determined link between measures and goals). In brief, the new goals are:

    - knowledge transfer;
    - improved competitiveness;
    - innovation in products and processing;
    - protection of biodiversity and landscapes;
    - more efficient and sustainable use of water, energy and low-carbon technologies; and
    - tackling rural poverty and social exclusion through local economic development and improved rural viability.

- There is explicit support for programmes which can be made up of a number of more focused 'sub-programmes', tackling specific themes or challenges identified at programme level.

- A new approach is added for 'European innovation partnerships', which seek to build closer links between research and land-based sectors, in tackling RD challenges. In addition, a new measure for collaboration significantly increases the types of collective and partnership-based planning and delivery that can be assisted. For example, it can involve partnerships between farmers, local authorities and environmental experts to manage agri-environment-climate actions; and partnerships along food chains, to develop added-value or innovative products and supply arrangements.

- There is a reinvigorated approach to LEADER which reinstates its relative independence from the wider measures' architecture, requires all EAFRD programmes to spend at least 5% of their total funds on it and promotes multi-funding from all EU funds, as appropriate. There are also new measures to promote capacity-building in relation to LEADER-type delivery approaches, more widely.

In sum, the basic architecture of the proposed rural development policy is now more similar to that which has formerly characterised ERDF and ESF funding programmes, in that it gives more choice to MS about which measures they wish to use, in which combinations, and for which aims. However, the financial rules governing the proposed new fund will not adopt the same degree of flexibility that applies to ERDF and ESF, retaining similar provisions to those covering the current EAFRD.

The common requirements of programmes are that all must be consistent with the six new strategic objectives of EU RD policy; that they must be developed in partnership with stakeholders; and that they must adopt the multi-annual programming approach as first established under the Agenda 2000 reforms. Agri-environment measures remain, as

before, the only compulsory measure within the menu, but the former requirement to spend at least 25% of programme funds on these and other measures for 'environmental land management' has been altered so that in future it should apply to a bundle of environmental measures, indicated as aids for agri-environment-climate; organic farming; and areas facing natural or other specific constraints. However, the degree to which earmarking would be observed in practice remains to be seen, given that the requirement is not (yet) set out within the draft legislative text and therefore not legally binding.

3.1.2.1. The revised Pillar 2 menu- objectives and measures

The draft regulation reduces the current 30-plus measures for rural development to 25, but without losing any functionality of the previous list. Thus, many measures are more broadly defined than previously, while some are actually combinations of two or more previous measures, such as the physical investments measure (covering farm modernisation, farm infrastructure, processing and marketing investments and the current non-productive investment measures), as well as those which had considerable overlap in the current programmes (e.g. village renewal and basic rural services).

While measures are no longer placed in 'axes', their titles give a clear indication of the kinds of strategic goal (some single, some multiple) for which each may be best suited. These goals or objectives are reflected in the objectives for the EAFRD proposed for the Common Strategic Framework, set out in the recent Commission staff working document.[9]

The six strategic objectives for RD at the European level chime well with needs and opportunities identified as relevant to sustainable competitiveness and innovation, in chapter 2 of this report. These goals are now considered in turn, alongside the types of measures that are likely to be of most relevance for meeting these objectives.

(1) *fostering knowledge transfer in agriculture and forestry*, focused on promoting human capital and smart networking; fostering innovation and the knowledge base; and strengthening the links between the sectors and research and development.

Preamble 14 of the legislative proposals states that, 'Knowledge and information acquired should enable farmers, forest holders, persons engaged in the food sector and rural SMEs to enhance in particular their competitiveness and resource efficiency and improve their environmental performance while at the same time contributing the to sustainability of the rural economy'. The CSF objectives for fostering innovation and the knowledge base in relation highlight *key actions* under rural development policy as 'cooperation between the agriculture, food and forestry sectors and other actors and the creation of clusters and networks'; 'the establishment and use of advisory services….[and] enabling farmers, forest holders and SMEs to access advisory services in order to improve economic and environmental performance'; and 'strengthening the links between agriculture and forestry and research and innovation through setting up operation groups….[as] part of the European Innovation Partnership for agricultural productivity and sustainability' (SWD(2012) 61final, p 4) (European Commission, 2012b).

As discussed in Chapter 2, facilitating knowledge transfer through training, advice provision and capacity building has been shown to be an important means of achieving long term behavioural change in relation to sustainability and environmental issues. This priority

[9] SWD(2012) 61 final – Commission Staff Working Document 'Elements for a Common Strategic Framework 2014-2020', 14 March 2012.

could be used to build upon those initiatives that have already been developed in several Member States under the current programming period, to help to increase the skills and knowledge of farmers in respect of more efficient water use, soil conservation, protection of water quality and increased productivity through more careful management practices and systems. For example, encouraging a more widespread shift of practices towards Integrated Crop Management and other efficient-input technologies and systems could increase sustainability without compromising farm output, and even bring new opportunities for better market returns (Dwyer et al, 2010).

Knowledge transfer and networking can also be a key part of securing shorter supply chains which offer a greater return to the primary producer. It is only when farmers themselves have the confidence to enter into marketing ventures and/or to work with their neighbours to produce sufficient volumes or variety to make this viable, that these kinds of initiative can succeed. Spending resources to set up groups or hold events which bring together producers, market agents and retailers to consider how to improve the links between local products and customers and secure a better return to the producer, could be important.

Experience from countries within and beyond Europe suggests that farmer-centred learning and networking is an essential element in encouraging widespread adoption of enhanced practices (e.g. Röling and Wagemakers, 2008). But working with and through existing networks is known to be important, as well as encouraging more collective discussion and learning at times and in places which best suit farmers. Our analysis in Chapter 2 concludes that the most common reason for failure in respect of promoting this goal is where training is not carefully designed to attract uptake from those beneficiary groups who should benefit most from it. Promotion, and inclusive delivery approaches, are essential.

(2) *enhancing competitiveness of all types of agriculture and enhancing farm viability*, with a focus on: restructuring of farms facing major structural problems, with a low degree of market participation, and farms in need of agricultural diversification; also facilitating generational renewal in the agricultural sector.

Key objectives for the EAFRD as articulated in the draft CSF staff working documents under this objective are 'to enhance the competitiveness of the agricultural sector…to secure viable food production in the EU and contribute to job creation and maintenance and growth in rural areas'. It cites particular challenges that need addressing in the agricultural sector, which include 'the size of agricultural holdings in some regions which forms an obstacle to competitiveness, the sector's age structure, with only around 6% of farmers under 35, and the need to foster productivity and efficiency to respond to competition from third countries, rising input costs, market volatility and environmental challenges'.

Despite the fact that Article 5 of the rural development legislative proposals requires environmental concerns to be integrated into all actions funded, sustainability concerns do not appear to be at the forefront of this priority's overarching objectives. They do not feature in key actions to be funded via the EAFRD, which include: farm restructuring (with specific mention of economic sustainability); generational renewal through support to young farmers; integration of primary producers into the food chain (see below); and risk management (see also below).

The importance of the competitiveness objective/priority is especially reinforced by the fact that Member States are permitted to include thematic sub-programmes within their RDPs, focussing on four areas, three of which are linked directly to this objective (young farmers, small farms, and short supply chains - to address restructuring of agricultural sectors which have a strong impact on the development of rural areas). For any sub-programmes

targeting young farmers and short supply chains, the maximum support rates for all investment measures can be increased by 10%, as long as the total levels of support do not exceed 90% of the total cost of investment.

This goal clearly has potential to encourage competitiveness that is sustainable, but environmental sustainability is not ensured by the current drafting of either the legislative text or the proposed objective within the outline of the CSF.

The main measures that might be used for this goal centre around different kinds of investment aid (private or public, but mainly productive), as well as payments to facilitate inter-generational transfer of holdings (early retirement and support for young farmers). Land consolidation is seen as important for ensuring the continuing viability of land management in some areas. Encouraging farm business start-ups among the younger generation can also offer new or more diverse types of farming.Our review in Chapter 2 has highlighted the importance of using investment aid in combination with appropriate training, advice and information, in order to maximise its cost-effectiveness.

Within the proposed new measure for 'investment in physical assets' which brings together most investment aids for farming and forestry, there has been an attempt to improve the sustainability in investments relating to irrigation by a new stipulation that 'only investments that lead to a reduction of previous water use by at least 25% shall be considered as eligible expenditure' (article 46(3)). Other than this explicit mention, funded investments may trigger Strategic Environmental Assessment (SEA) and/or Environment Impact Assessment (EIA) processes, as a means to ensure they are environmentally sustainable. Existing evidence suggests that these mechanisms are not sufficient, on their own, and that more can be achieved where programmes incorporate specific criteria to discourage or prohibit investments which cause environmental damage.

Other implementation weaknesses in relation to farm modernisation investments were highlighted in Chapter 2, such as high deadweight; encouraging over-capitalisation in sectors where rapid farm enlargement is likely to follow and thereby render this unnecessary; and the introduction of high levels of indebtedness on farms (due to the need to match aid with private funds), resulting in increased vulnerability to market shocks. Under the current legislative proposals, these issues look likely to remain in the forthcoming programming period, unless Member States do more to introduce enhanced eligibility criteria within their RDPs. We therefore consider how such practices could be encouraged, in Chapter 4 of this study.

(3) *promoting food chain organisation and risk management in agriculture*: integrating primary producers into the food chain through quality schemes, promotion in local markets and short supply chains, producer groups and inter-sectoral organisations.

This priority is also intended to improve the competitiveness of the agricultural sector, promoting shorter supply chains and trying to help farmers deal with the 'increasing economic and environmental risks [they face] as a consequence of climate change and increased price volatility' (preamble 20 of the EAFRD proposals). The actions suggested as priorities for the EAFRD in the CSF working documents are:

- for promoting food chain organisation: 'integration of primary producers into the food chain, through support for quality schemes, promotion in local markets, horizontal and vertical cooperation, new marketing and networking opportunities, the development of short supply chains and the setting up of producer groups'; and

- for risk management: 'farm risk management, through a range of tools to assist farmers with the effective management of increasing economic and environmental risks, including animal and plant diseases, and support for investments in preventive and restoration actions'.

Building upon ideas suggested for priorities 1 and 2, shorter marketing chains for agricultural products, as well as new products and marketing ventures, could be an attractive and viable strategy for some sectors in many regions. However, as with the earlier priorities, the sustainability dimension of this priority is not explicit.

There are important opportunities for using this priority to enhance competitiveness in a sustainable way. Making closer links with major food users in hotels, catering and hospitality sectors, as well as with processors and food retailers, could be important, in order to identify the best opportunities. The types of investments that might be promoted from a sustainable point of view could include equipment and collective structures to facilitate rapid fresh crop-to-plate or crop-to-supermarket-shelf supply chains which preserve product quality, guarantee origin and authenticity and improve traceability. Capital funding under this goal could facilitate product development and processor agreements with suppliers.

The rural development proposals here introduce a new set of measures for risk management, as formerly supported under CAP pillar 1. It is proposed that all such measures in the former Article 68 (see Chapter 0) will be transferred to Pillar 2 and will be required to be co-financed by Member States. However, a number of risk management measures will continue outside Pillar 2, for example in the wine and fruit/vegetable CMOs.

In respect of the new Pillar 2 risk management approach, the proposed toolkit includes three types of measures (Articles 37-40) which fall within the third general priority of the RD policy, "promoting food chain organisation and risk management in agriculture". These measures are intended to have a stabilising effect on farmer competitiveness by helping address the fact that "farmers are exposed today to increasing economic and environmental risks as a consequence of climate change and increased price volatility" (COM(2011) 627/3) (European Commission, 2011d, p19).

Table 3: Changes from the current programming period to the next period

2010-2013	Risk Management	2014-2020	Risk Management
Direct payments	Article 68 (farm insurance schemes, mutual funds)	Direct payments	-
Market measures	Wine CMO Fruit and vegetables CMO (farm insurance schemes, mutual funds)	Market measures	Wine CMO Fruit & vegetables CMO (farm insurance schemes, mutual funds)
Rural development	-	Rural development	RDP measures (farm insurance schemes, mutual funds)

The evidence we have discussed in Chapter 2 (and in the Annex 2 Italy case study) suggests that although public funding in this field presents farmers with opportunities to reduce risks, thereby perhaps giving them more confidence to innovate and/or improve product quality, there are several weaknesses of the current proposals (see Box 3). One concern is that the optimal design and function of these measures could be said to have

more of the characteristics of equal treatment and economies of scale traditionally associated with Pillar 1, than with the more targeted and territorially-differentiated style of programmed measures in Pillar 2. Furthermore, there is a risk that Member States will be tempted to allocate a significant share of pillar 2 resources to these relatively easy-to-disburse financial measures, and this could jeopardise the priority given to more ambitious measures which seek more positive approaches to sustainable rural development. Adopting a maximum threshold for these measures might therefore find support as a way of avoiding these concerns. Alternatively, a proposal could be made to move these measures into the Pillar 1 framework as an option available to Member States, as has been the case under the current policy.

Box 2: Issues with the Commission's Pillar 2 risk management proposals, as identified from analysis of the case study of Italy

- The cost to national budgets of co-financing measures will be higher than rates under Article 68 (from 25% to 50% in all regions other than less-developed ones). This could disincentivise adoption within the new menu of RD measures.
- RDPs may be national or regional in scale. For risk management measures, a national approach would be preferable to regional one, as: (i) a national fund would have a critical mass of resources for more rational management; (ii) it could diversify the client base and thereby distribute risk across a wider territory; (iii) diverse rules among regional RDPs would affect competition among farms operating in different regions; (iv) the measures need a strict set of common rules to avoid the risk of over-compensation (summing the benefits from contemporary use of the measures); (v) there are high initial administrative costs, due to lack of specialist knowledge in setting up mutual funds, which would be duplicated by each region, in federal countries. These factors would make this instrument considerably less efficient in a federal context.
- The definition of farm income used for calculating losses deserves specific attention, given its current ambiguity in the regulatory proposals.
- There is a need for strong co-ordination and a common regulatory framework to avoid conflicts/overlaps with similar measures under CMOs (for wine, fruit & veg).
- The lack of previous experience of mutual funds in some regions could require specific 'flanking measures' to ensure success (technical advice, information, animation).
- This measure is essentially serving a similar purpose to income support under Pillar 1 of the CAP. Thus, the fact that risk management funds are relatively easy to disburse, once established, could jeopardise the priority given to other measures which more clearly promote rural development. In order to avoid this, some maximum threshold for risk management within RDPs could be needed: interviewees suggested 5%.

Source: Mantino, 2012.

Interim findings from an ongoing study for DG Clima (IEEP, in progress) suggest that from a climate adaptation perspective, measures that provide funding for restoring productive potential as the result of a natural disaster can be counter-productive, in that they act as a disincentive for farmers to think about longer term solutions that might help avoid the impact of the risk in the first place. In this vein, the key actions that are highlighted within the CSF working document to 'promote climate adaptation and risk prevention and management' include sustainable water management (including efficient water use); improved soil management; and maintaining genetic diversity of crops and livestock. It would seem pertinent, therefore, to at least monitor whether increased use of risk management and insurance approaches in RDPs leads to reduced use more long-term or resilient risk-reduction practices.

(4) *preserving and enhancing ecosystems dependent on agriculture*: preserving biodiversity and landscapes; improving water and soil management.

This priority is one of the two explicit environmental priorities within the rural development proposals. Measures which promote environmental land management to maintain, enhance and restore habitats and associated ecosystem services can be central in underpinning the sustainability dimension of enhanced competitiveness, if appropriately designed.

Building upon the few good examples of innovation that have been demonstrated to date (see Chapter 2), agri-environment-climate payments should be further developed in ways which can maintain or increase sector viability and cost-effective business performance. At present, it seems many AEM are perceived as constraining successful farm business development, despite experience from some countries which shows how the opposite is indeed possible, by adopting careful design which involves farmers themselves. At root, the WTO obligation for these payments to represent 'compensation' for income foregone is not helpful, but notwithstanding, the significant variability in individual costs of production and business motivations should ensure that AEM can be made both attractive and workable for a significant share of rural land managers. Key to increasing the success of these measures in terms of sustainable competitiveness is to encourage greater partnership in measure design and delivery, between environmental and farming practitioners.

The EIP for agricultural productivity and sustainability could play a key role here (see section 3.1.2.3), alongside the measures for environmental management, such as agri-environment-climate and organic farming measures, and measures for farm advice, information, knowledge transfer and training. The new collaboration measure is also potentially essential for effective measure planning and targeting.

Maintaining extensive farming systems, as well as integrating sustainability considerations into more intensive systems, will be critical, over the coming years. Many of Europe's distinctive landscapes are threatened by decline in active management, and encroachment by insensitive non-farm use. Agricultural landscapes of High Nature Value as well as the network of Natura 2000 protected areas are a key priority for protection. In more productive farmland areas, land use mosaics and linear features are an integral part of landscape quality and habitat diversity which should be maintained. Such maintenance takes time and resources, which small farms in particular can find difficult to sustain. Collective planning to ensure regular upkeep of these places and features may often be needed, so that environmental agencies work with farmers and other organisations (recreational groups, tourism providers) who can contribute skills and/or perhaps volunteer labour, to support continued management.

The use of the EAFRD for these purposes will need to build on the proposals to 'green' Pillar 1 direct payments which, together with cross-compliance requirements, could provide a solid foundation on which the more ambitious Pillar 2 measures can build.

Another important element in this priority will be the use of funding to enhance the capture, storage and re-use in agriculture of water, to improve the efficiency of water use within the sector and to plan for the adaptation of farming in some southern areas towards dryland systems, to remain competitive in the longer term. To achieve this cost-effectively will require cross-Ministry working at Member State and regional levels and the use of investment measures, alongside those promoting sustainable land management. This is likely to be an important theme in the Partnership Contract governing all EU funds, especially for southern and eastern regions where water scarcity is a serious concern.

(5) *Promoting resource efficiency and the transition to a low carbon economy* in the agriculture and food sectors, increasing efficiency in water use; energy use; supply

and use of wastes, residues and other non food raw material for the bio-economy; reducing nitrous oxide and methane emissions from agriculture; and fostering carbon sequestration in agriculture and forestry.

This goal is essential to ensure the long term sustainability of the agricultural sector and allow it to continue to be competitive, particularly in the context of the challenge of climate change. It will also be central in enabling the agricultural sector to contribute effectively to the EU vision for a resource efficient Europe, in keeping with the EU2020 strategy.

With a particular focus upon agriculture, key actions under this priority within the CSF staff working document include: increased efficiency in energy use in agriculture and food processing (through investments and advice); facilitating the supply and use of renewable sources of energy and of by-products, wastes, residues and other non-food raw material to promote the bio-economy; reducing nitrous oxide and method emissions from agriculture; and enhancing carbon sequestration and emission reduction in agriculture.

Better handling, treatment and re-use of livestock manures and reduced livestock numbers in some sectors will help with reducing GHG emissions and be complementary to those enhancing efficient water use in both livestock and crop farming, as discussed earlier. In respect of renewable energy generation, a variety of types of aid to support planning, establishment and effective marketing/feed-in provisions, are likely to be beneficial.

(6) *realising the jobs potential and the development of rural areas*, facilitating diversification and job creation; promoting social inclusion and poverty reduction; and fostering local development in rural areas.

Experience has shown that, where increasing rural employment is a key goal for rural development, seeking this through agriculture is usually not the most cost-effective option: creating rural jobs in other sectors appears more likely to prove a durable strategy, particularly if farm pluriactivity is included. The CSF staff working documents highlight the importance of promoting diversification from the agricultural sector to create new small enterprises in rural areas. Improving the income of the poorest rural inhabitants is also very relevant to agriculture in some regions and sectors, particularly where low incomes are linked to low levels of education or skills. This priority can be promoted by many of the actions highlighted under priority 1, but effort is often needed in order to ensure measures are attractive and accessible to the poorest farm families. In addition, access to basic services and relief / care provision in isolated rural areas can add value, particularly in respect of helping women and young people in rural households to seek employment or develop more home-based economic activity to supplement farm incomes. Evidence from the current programmes suggests that, particularly in new Member States, funding opportunities for the commercial, trade and service activities typically found in villages, as a means of generating new value-added partnerships in rural areas, would be beneficial. The increased flexibility allowed within the legislative proposals, including the increased emphasis placed on collaboration and partnerships, should help facilitate this. Perhaps equally importantly, the greater financial independence of the LEADER approach in the draft regulations, compared to its status in current programmes, could add value in this context.

3.1.2.2. The EIP for Agricultural Productivity and Sustainability

The EIP for 'Agricultural Productivity and Sustainability'[1] is one of several EIPs under the Innovation Union Flagship for the EU2020 Strategy.[2] It is promoted as a way to foster innovation and mobilise the potential of research, for actors in the agricultural sector, to be implemented through actions under the EAFRD and the EU Research and Innovation Policy. Two headline targets have been identified for the EIP as a whole:

- to reverse the trend of diminishing productivity gains by 2020; and
- to secure *soil functionality* at a satisfactory level by 2020, in order to increase the sustainability of agriculture.

By achieving these targets the EIP aims to 'promote a resource efficient, productive and low emission agricultural sector, working in harmony with the essential natural resources on which farming depends'. It is intended as a policy response to the challenges of increasing food demand, increasing demands on land for biomass and bioenergy production as well as for nature conservation, pressures on resources and the environment, and the slow-down of growth in Europe's technological development within the agricultural sector.

The Commission's Communication on the future EIP (COM(2012) 79 final) (European Commission, 2012a) highlights that one of its key aims is to integrate sustainability into all components of agricultural production:

- in land management that is both resource-efficient and protects public goods;
- in measures addressing the whole supply chain;
- in actions to improve recycling and the reduction of post-harvest losses; and
- in the development of new products.

Funding is intended to allow partnerships to be developed between researchers and practitioners to run innovative projects, with an EIP network at EU level, to foster cooperation and enhance communication between different actions. The Commission's Impact Assessment states in particular that: 'Public involvement and funding is particularly important in those areas (e.g. public goods) which do not attract the interest of the private sector.' (CEC 2011b, Annex 7 p.41).

The EIP is being encouraged as an element in RDPs for 2014-2020. It requires Managing Authorities and stakeholders to agree one or more specific topics for this approach. The key feature of the EIP is that farming sectors must work with research and development organisations in EIP-supported actions, to strengthen the capacity for the sector to innovate. This might mean farmer organisations or groups working closely with agricultural or environmental researchers in Universities and institutes to determine how best to meet priorities on water and energy, or experimenting with new approaches to increase the environmental and economic sustainability of crop or livestock production. Another possibility would be to forge new partnerships between farmer-entrepreneurs and other centres of business innovation in the wider rural economy, such as tourism and hospitality, in order to develop new products and approaches.

The biggest unknown, in respect of this new chapter in the draft regulation, is how far Member States will respond to the highly aspirational model that it describes, in order to promote sustainable competitiveness and innovation. Our analysis of experience to date under EAFRD (see Chapter 2 conclusions), suggests there is a risk that EIPs in practice will fall short of the promise of the policy rhetoric, due to low capacity and lack of trust between key rural actors and stakeholders, including the public administration, at local level. This suggests a need for the legislative proposals, or the flanking measures to support imaginative use of EIP (guidance, networking, promotional actions, additional incentives), to be strengthened in this regard.

3.1.2.3. Changes to the design of Pillar 2 measures, with implications for delivery options

It is important to note that for many of the proposed measures in the draft regulation, their flexibility has been increased. So, for example in respect of payments for knowledge transfer (formerly represented by the training measure 111), eligible items can include training by farmers for farmers, farmers working in groups, making visits to learn from others at home or in other countries, using capital funding to provide equipment for certain activities (e.g. processing of produce on-farms, such as a mobile cheesemaking unit), demonstration events and sites. These add to the existing scope of measure 111.

In respect of payments for land management, it is explicitly stated that these can, in appropriate circumstances, be paid to people other than farmers, where that is clearly beneficial to land management for environmental benefit. This offers the potential, for instance, to set up associations which might take on certain environmental tasks on behalf of farmers, in order to manage the work more effectively in priority areas. Such associations could have both farmer and non-farmer membership or representation.

An integrated approach at local level is embodied in the draft regulation on rural development for the 2014-2020 period. Integration in measure design and delivery is no longer limited to the LEADER model, but is widened to encompass other policy instruments. In fact, article 36 of the draft regulation offers many different opportunities in the field of rural development to combine packages of measures with a partnership method of planning and delivery of these packages: its scope covers food and non-food chains; clusters and farmer networks; and partnerships for innovation (within the EIP framework).

In general, the measures give more opportunities for the creation and support of collective solutions to land and resources management, getting people together to plan and agree what needs to be done, supporting group actions with additional payment to cover transaction costs of collaborating, and supporting the carrying out of management by collective as well as individual beneficiaries. These changes should provide real opportunities for Member States and regions to devise the most efficient ways to tackle rural development challenges without the risk that aid is given on an individual basis to a large number of very small and un-co-ordinated recipients, with limited strategic impact.

To emphasise the importance attributed to innovation in the future CAP, it is also proposed that the proceeds of the reduction and capping of payments to large pillar 1 beneficiaries should remain in the Member States where they were generated and be used for EAFRD projects that 'provide a significant contribution to innovation, relevant to agricultural productivity and sustainability, including climate mitigation or adaptation' (article 66).

3.1.2.4. Summary assessment of Pillar 2 proposals

The proposed changes to Pillar 2 architecture and measures appear broadly positive in respect of their ability to foster sustainable competitiveness. They give more scope for Member States and regions to design focused, integrated and themed strands of activity designed to meet the six new EU priorities in ways which best suit the needs and opportunities in each region.

The Common Strategic Framework and the partnership contracts for rural development and structural funding between the European Commission and the Member States are expected to deliver greater coherence between the European Agricultural Fund for Rural Development and the Structural Funds, which could also be helpful to innovation.

Since minimum budget shares will be defined for only two areas (three environmental/climate focussed land management measures, and LEADER), Member States and regions have more flexibility to design rural development programmes to suit their specific needs. VTI has commented that the planned differentiation of the co-financing rates does not suggest an orientation towards "European added value", territorial aspects of public good provision or a focus on regions with specific problems (2011). However, we tend to the opposite view: the differentiation is more clearly targeted than before, although some targets (e.g. young farmers) do not fall into these three categories.

A significant note of caution needs to be added, however, to this assessment. From evidence presented in Chapter 2, it was clear that the simple provision of measures which offer aid for the establishment and development of more co-ordinated, collective and strategic approaches for sustainable competitiveness is not sufficient to ensure that these processes will indeed take place. There is already evidence that among the range of pillar 2 measures, Managing Authorities have struggled to succeed in implementing those which require the greatest degree of prior collaborative or partnership effort, in order to be operable. The reasons for this pattern are not always the same, nor simple to identify, but contributing factors seem likely to be a level of local mistrust between farmers, or between farmers and other key actors in rural territories, including government agents and officials; the time and trouble required from multiple actors, in successfully establishing groups of farmers and others who are willing to collaborate for mutual benefit; and the low levels of pre-existing understanding concerning the potential benefits of this kind of approach, compared with those expected from more conventional and individualistic approaches.

Bearing this in mind, the value of lessons learned from existing successful collaborative and strategic funding partnerships, such as the example from Basilicata discussed in Annex 2, is emphasised. We will therefore revisit these lessons in the next chapter.

3.1.3. Pillar 1 of the CAP

3.1.3.1. Direct payments

The proposed reform terminates the Single Payment Scheme (SPS) applied to the EU15 since 2004, and the Simplified Area Payment Scheme (SAPS) applied in some new Member States since accession, to be replaced by a new scheme applying to all Member States. The main features of the new scheme are that: the supports will be **redistributed** between and within Member States, payments will be **better targeted** to support only active farmers, give less support to largest farmers, give more support to young farmers, more support to farmers in Areas of Natural Constraints, and retain some coupled payments; the payments will be **simplified** especially for small farmers; and **greened** for all farmers. The legislative text is explicit that one intention of these changes is to assist the competitiveness and sustainability of EU farming. The extent to which different elements of the proposals are likely to achieve this in practice, is discussed in the sections below.

Redistribution and regionalisation of direct payments

The proposal is to redistribute funds from Member States with above average payment rates to those below average, calculated to close one third of the gap between the current payments and 90% of the EU-27 average. The net effect is likely to be neutral as far as competitiveness and innovation are concerned at EU level. It also seems unlikely to be sufficient to have a major impact upon relative sector performance, between Member States. However, at the farm scale, as direct payments in all Member States converge towards flat-rate payments per hectare, in theory this will provide large reductions in payments to some individual farms and large gains to others. This could, at least

temporarily, affect competitiveness between sub-sectors since, if applied at national level, the basic shift of support is likely to be from arable to grass-based livestock production and from intensive to more extensive systems, *ceteris paribus*. However, Member States have the option of applying the redistribution on a regional basis, with regions 'in accordance with objective and non-discriminatory criteria such as their agronomic and economic characteristics and their regional agricultural potential, or their institutional or administrative structure' (Article 20 of COM(2011) 625 final/2) (European Commission, 2011g). This means that the extent of the redistribution between sub-sectors is likely to be more limited in reality. In several Member States there is concern amongst farming sub-sectors which would lose considerably from regionalisation, that the proposed pace of redistribution is unacceptably fast. On the other hand, in other areas where farmers would stand to gain from such a move, views have been expressed that the ambition to close only one third of the gap between current rates and 90% of the EU27 average is too modest.

The move to regionalise the payments across each Member State *could* be a stimulus both for more competitiveness (amongst productive farms losing payments) and more sustainability, in that more funds are allocated to more extensive farms, usually associated with the provision of more public environmental services. Conversely, if redistribution triggers significant structural change and farm consolidation without sufficient safeguards, this may threaten sustainability: similar trends have contributed historically to significant environmental damage in Europe (Baldock et al, 2002).

Restrictions of payments to active farmers, and cutting / capping aid levels

It is proposed (Article 9) to define active farmers as those whose direct payments (above €5000) are greater than 5% of "the total receipts they obtained from non-agricultural activities", and they are carrying out 'minimum activities' established by the Member States. This is an area of great contention currently.

Article 11 proposes progressive reduction of the basic payment (excluding the 'green direct payments') above €150k, capping them at €300k and making an adjustment for salaried labour. This proposal will impact on Europe's largest farms (fewer than 5%), which may therefore set about restructuring, and ensuring that their labour is salaried. The experience of such payment caps in the United States is that, over time, they encourage avoidance of the effects of the cap by farm restructuring. This measure is seen by the farming community as working against the drive to improve the competitiveness of EU farming, but it should be recognised that the overall impact, compared to those of other provisions, is not likely to be highly significant at EU level, due to the relatively small proportion of businesses affected. As with all the redistributive proposals, it could affect relative MS 'competitiveness', marginally favouring countries and regions without a high proportion of very large farms.

Greening payments

A centrepiece of the direct payment proposals (in Articles 29-33) is that 30% of the payment ceiling in each Member State (or region) should be paid for "agricultural practices beneficial for the climate and the environment". These "take the form of simple, generalised, non-contractual and annual actions that go beyond cross-compliance" (recital 26). The core objective is to address climate and environmental policy goals – the latter includes goals for preserving and enhancing biodiversity, and also water and soil protection. The suggestion is that, taken together, through the proposed amendments to cross compliance, the greening measures in Pillar 1, enhanced Pillar 2 agri-environment schemes and the enhanced advisory service, the sustainability of EU agriculture will be improved.
Three compulsory greening practices are proposed:

- crop diversification: all arable land on farms over 3 hectares (which is not entirely grass, or fallow, or under water for significant periods) must have at least three crops, the smallest occupying at least 5% of the arable area and the largest not more than 70%;
- maintaining the permanent grassland area of each farm as of 2014, allowing it not to decrease by more than 5%;
- an 'Ecological Focus Area' (EFA) occupying at least 7% of the eligible hectares of the farm, excluding areas under permanent grassland. EFAs are land 'such as land left fallow, terraces, landscape features, buffer strips and certain afforested areas'.

It is certainly the intention that the greening actions proposed in this reform will have a significant positive effect on all aspects of the rural environment: biodiversity, water, soil and climate protection and cultural landscape. Whether this is the case will depend to a great extent on (a) the further details awaited from the Commission to explain what constitutes a crop, the definition of permanent grassland and ecological focus areas and their management, (b) how these regulations are implemented in the Member States.

There is a great deal of discussion about the likely impacts of the greening measures on the environment, but little firm evidence. If the crop diversification requirement stops continuous monocultures of arable crops this could contribute to soil fertility and biodiversity. The maintenance of permanent grassland is intended as a climate protection measure and might also help preserve biodiversity in some grasslands. The EFA proposal has the greatest potential to deliver against all environmental objectives. The Commission suggests it is chiefly a biodiversity protection measure, but suitably placed and managed it could also be important for soil, water, climate and landscape protection. Allen et al (2012) identified the key factors determining whether EFA will deliver environmental objectives as: location, permanence, management quality, and the availability of adequate supporting information and advice.

Greening is strongly criticised by farmers' organisations for its potential effects on competitiveness (e.g. NFU, 2011). Farms with fewer than three crops in rotation claim crop diversification measures will involve them in higher costs, impairing productivity. Livestock farms which grow a single crop of feed grain in rotation with grass, could have to contrive a small area of a third crop at additional cost and inconvenience. Some suggest it will deter them from having arable area, reducing a valuable aspect of mixed farming. The maintenance of permanent grassland is calculated by the Commission's Impact Assessment to have the largest potential negative effect on some farmers' income. This is mainly due to the estimated opportunity costs associated with no longer being permitted to plough grassland, for example to cultivate maize for biofuels and anaerobic digestion to produce renewable energy, a trend in some parts of the EU, such as northern Germany. The sustainability of these practices has already been challenged by a wide range of environmental agencies and NGOs. Farmers organisations see potential high costs in 'setting aside' seven percent of arable land for EFAs, but their analyses tend to assume it will take 7% of average productivity cropland, whereas in reality, farmers will assign their least productive land to EFA, which should reduce negative impacts upon competitiveness and in some situations could actually increase it, through cost savings.

Young farmer payment

The proposal is that all Member States must put in place a top-up in direct payments for farmers under 40 years of age and within their first five years of farming on their own account. The top-up, payable for a maximum of five years, will be from €1000 to at most

€7000 per annum. Member States are allowed to use up to 2% of Pillar 1 national ceilings for this measure. This is considered an important element of the new package by the Commissioner, who sees it rejuvenating the sector by reducing financial barriers to setting up a farm business, "clearly a limiting factor for many young people, particularly in zones where access to farmland is increasingly difficult" (Anon, 2012). To date, young farmer schemes in the EU, funded through rural development policy, have been associated with a degree of deadweight (Dwyer et al, 2008). It is questionable, therefore, whether such untargeted support is a cost-effective contribution to competitiveness and innovation. Impacts on environmental sustainability are likely to be negligible.

Voluntary coupled support

The proposals widen the range of sectors for which coupled direct payments can be offered to almost all crops and livestock except wine, tobacco, pigs and poultry. Sectors or regions covered must be restricted to where "specific types of farming or specific agricultural sectors undergo certain difficulties and are particularly important for economic and/or social and/or environmental reasons" (Article 38(2)). The coupled payment can only be "to create an incentive to maintain current levels of production in the regions concerned". It is therefore concerned with the preservation of certain types of farming under threat of disappearance. Its impact should be similar to natural handicap (LFA) measures in Pillar 2.

Areas of Natural Constraint

The EU is currently redefining its non-mountainous, Less Favoured Areas on a more objective basis according to nine bio-physical criteria (JRC, 2011), to address criticisms that the current demarcation of these areas is not objectively based. The proposals suggest that, in addition to aids already available under Pillar 2, Member States will be permitted to use up to 5% of their national ceilings to make Pillar 1 top-up payments on a per hectare basis in some or all of their Areas of Natural Constraints. This is therefore another very broadly defined measure. It is unclear why it is felt that the additional Pillar 1 payment is needed, although it could serve as a means of redirecting a proportion of the regionalised basic payment back to these types of area, should the decisions on the redistribution of direct payments (see above) be seen to disadvantage these areas.

Small farmer scheme

More than 70% of farms in the EU are less than 5 hectares in size and 33% are under three hectares. Three million farmers in the current Single Payment Scheme are claiming less than €150 each, as well as others (e.g. subsistence farms in Romania) who are currently judged too small to be eligible for aids. The Commission's Impact Assessment for the proposed changes to direct payments notes that small farmers come under significant pressure in the face of increased competition in commodity prices, and suffer from limited market access due to lack of financial resources for investments, difficulties with access to credit, high transaction costs and poor bargaining power. Yet in some territories, these types of farm make an important contribution to social and environmental objectives. Recognising this, it highlights the importance of ensuring that support structures are in place that allow small farms to survive and develop.

Small farmer payments will be limited to a maximum of three times the national average per hectare basic payment. They will be exempt from the greening measures and cross compliance conditions. Small farmers would receive at least €500 and at most €1000 per year under the scheme. All Member States are required to offer this measure, and can allocate up to 10% of the Pillar 1 national ceiling.

As the payment amounts are small it is hard to see any significant impact on EU sector competitiveness. However, collectively these farmers manage a significant area of EU farmland, and the payments may encourage them to continue this management, meaning a potentially significant territorial competitiveness/viability impact (most notably for islands such as Malta, and less developed regions such as Transylvania and southern Poland). However, because of the exemption from cross-compliance, there is no guarantee that such management would be environmentally sustainable, and in some cases it is questionable whether a support payment of €500 a year would be sufficient to incentivise any significant development or innovation among beneficiaries who may well be pluri-active and thus lack time or inclination to devote more effort to farming.

3.1.3.2. Market organisation and horizontal proposals

Sugar Regime – the proposed abolition of quotas

The proposals for sugar involve the removal of production quotas in recognition of the fact that previous rounds of reform have cut guaranteed prices, and a tightening world market has raised unsupported prices. This has developed to the extent that sugar producers and beet refiners in Europe are enjoying almost unprecedented high prices and sustained demand for their product on the domestic market. However, there is no proposal to remove the external tariff barriers on the importation of raw sugar cane for refining within the EU, which seems likely therefore to encourage the decline of this sub-sector, leaving the EU market more reliant upon beet processing companies and perhaps helping to sustain the current area of beet production. However, the impact of this proposal on sustainable competitiveness as a whole is marginal, as sugar is itself only a minor crop type and one which tends to be grown on some of the best arable land in the EU, most often in rotation with other crops. Supporters of the former EU sugar regime claimed that it had an important role in supporting growers and in providing diversity in farm landscapes (including important bird habitat). However, current market trends suggest that this role will be maintained due to buoyant prices and demand, at least insofar as isoglucose production remains modest, notwithstanding the reform proposals.

Cross compliance

Under the proposals, cross compliance requirements remain, but have been streamlined (COM(2011) 628 final) (European Commission, 2011h). The number of Statutory Management Requirements (SMRs) has been reduced to 13 (from 18) and it is proposed that the Water Framework Directive and the Sustainable Use of Pesticides Directives will be incorporated as SMRs 'within 12 months starting at the moment the last Member State has notified the implementation of the Directive to the Commission'.

The number of GAEC standards has also been reduced to 8 (from 15). Some have been combined, while others have been superseded by the 'green' direct payment measures.
The main changes to cross compliance involve the introduction of two new GAEC standards to protect soil and climate stocks, the first requiring the maintenance of soil organic matter (GAEC 6) and the second requiring wetlands and carbon rich soils to be protected, including a ban on first ploughing (GAEC7).

Most of these revisions are unlikely to impact significantly on agricultural competitiveness. Some might argue that the new GAEC for the protection of wetlands and carbon rich soils may have some negative impacts as a result of the restrictions they impose on the cultivation of these areas where they are currently under permanent pasture, thereby removing the flexibility of the industry/sector to respond to market signals. However, this is an opportunity cost and not a real one. Furthermore, managing the land to build soil

organic matter should be in the self-interest of farmers and constitute good farming practice to ensure the long term productive capacity of the land. Indeed, increasing evidence predicts potential yield reductions in the future, unless soil organic matter levels are maintained (JRC, 2012). Overall, therefore, the proposed changes to cross-compliance should be positive for sustainable competitiveness.

Farm Advisory Service

The CAP proposals place reinforced emphasis on advice, with the focus of the Farm Advisory System (FAS) now expected to go beyond cross-compliance and include environmental issues under rural development policy, as part of its minimum scope.

As discussed in chapter 2, there is evidence that the FAS has important unrealised potential to be a significant force for sustainable competitiveness and innovation in EU agriculture. It is therefore a positive aspect of the proposals, that FAS might be broadened in scope so that it has a stronger mandate to become involved in all relevant parts of the future policy, spanning both pillars. Nevertheless, a broader remit does not in itself guarantee a stronger influence or role, because this depends critically upon the level and quality of resources – both financial and human – that are dedicated to the FAS, at national and local levels.

The proposals represent a relatively weak move towards realising the potential of this measure. Stronger options could include placing more obligations on Managing Authorities to make active use of the FAS to promote and embed sustainability in agricultural competitiveness, to demonstrate successful models of farm business practice which combine good economic and environmental performance and to enable farmers to put these into practice. A target to provide relevant advice to a high proportion of farms, and/or some requirement for RDPs to devote a minimum share of total funding towards appropriate advisory support, might also strengthen the achievements of the FAS.

3.2. Other relevant policy instruments outside the CAP

3.2.1. Legislative package on 'contractual relations in the milk and milk product sector'

The financial crisis of 2007/08 and the economic recession which followed in many parts of the EU, were accompanied by dramatic volatility in EU milk prices. The Commission estimates that milk prices initially rose from their norm of about €275/tonne to almost €400/t by the end of 2007, before slumping to under €250/t in spring 2009 and thereafter recovering. This was a shock to the sector, which has traditionally been heavily protected in the EU and has experienced the drive to market orientation later and slower than most other sectors. The hardship caused by the 2008/09 price collapse precipitated a very close examination of the economic characteristics of the sector by a High Level Group. Their report and recommendations resulted in a 'Milk Package' of measures proposed by the Commission in December 2010 (High level group, 2010; EC, 2010).

The measures are almost entirely about improving the competitiveness of the sector, but with minimal consideration of sustainability. The interpretation of competitiveness in this context refers mostly to the need to correct the effects of pronounced imperfect competition in milk supply chains. There are four elements to the proposed package:

- provisions to permit a change in EU competition rules to allow dairy farmers to negotiate collectively contracts for milk supply and pricing, this element is optional for Member States;

- to encourage producer organisations, to improve bargaining power in milk supply;
- encouragement of inter-branch organisations between farmers, processors, distributors and retailers to improve best practices, communications, and quality promotion in the milk chain;
- measures to improve transparency on prices, production and consumption.

In addition to these ideas to rebalance the economic relations in the milk chain and remove some of the opaqueness in milk pricing at each point, the other key proposal is to bring milk quotas to an end by the beginning of 2015. The removal of such supply management tools has been a major part of the shift to a more market-oriented approach in other sectors, and in any case production levels in nearly all Member States have consistently and increasingly fallen below quotas, so quota values (where they are traded) have fallen.

The milk package has been generally well-received as offering a useful contribution to helping rebalance the competitive terms in the EU dairy sector, although the final abolition of quotas is still contested by some producer interests.

The only reference to a new concept of sustainable competitiveness and increased attention to the environmental sustainability of milk production is in the eighth suggested function of the so-called 'Inter-Branch Organisations' – to promote integrated production or other environmentally sound production methods. It could therefore be questioned whether the package is sufficiently aligned to the emerging new CAP vision and the EU's commitment to address key global environmental challenges.

3.2.2. Proposals for changes to the European Globalisation Adjustment Fund

The European Globalisation Fund (EGF) was first introduced to assist workers who have been made redundant due to shifting global patterns. The EGF at present provides one-off, targeted support to provide job-search assistance. Since 2009, the EGF has been extended to cover workers affected by the global economic crisis. The proposed changes for the European Globalisation Fund do not change its fundamental structure, but add new features. Importantly, these changes broaden the eligibility criteria so that farmers suffering the negative impacts of new trade agreements will be eligible.

The proposed EGF (COM (2011) 608/3) (European Commission, 2011i) has a total budget of €3 billion with capped payments at €35,000 for individual workers. A maximum €2.5 billion has been earmarked to 'help farmers adjust to a new market situation resulting from the entry into force of a trade agreement', such as those currently negotiated with Mercosur countries. In contrast to other sectors, it is proposed that 'farmers changing or adjusting their previous agricultural activities following the initialling by the Union of a trade agreement' will be able to claim aid. Key sectors and / or products affected would be identified by the European Commission following an ex ante evaluation of the impacts of a trade agreement. Aid will apply to all active members of a farm household and 'focus on the acquisition of appropriate training and skills and use of advisory services'. More limited investment support will also be available to 'assist them to become structurally more competitive and secure in their livelihoods'.

These proposals led some to question whether the Commission will exploit this fund to settle an unfavourable agreement for EU farmers in negotiations with the Mercosur trading bloc. Cioloş has denied any such suggestions, claiming that 'the fact that we have this fund doesn't mean we can be more flexible in our negotiations. A poor trade agreement cannot be compensated by a globalisation fund' (Anon, 2011).

3.2.3. Horizon 2020 - EU research and development

The proposals for the next multi-annual financial framework, published by the Commission in June 2011, are that the funding for Pillar 1 and Pillar 2 would be complemented by additional funding of €5.1 billion for research and innovation. This is to be managed through Horizon 2020, the Framework Programme for Research and Innovation (COM(2011) 808 final, European Commission, 2011j). This document proposes a significant increase in research and innovation funding from 2014 to 2020, compared to the current period. It links to the goals of the EU 2020 Strategy and a key pillar of the Europe 2020 flagship initiative 'Innovation Union', aimed at enhancing Europe's global competitiveness.

Of the five key 'societal challenges' that it highlights as requiring research, 'food security, sustainable agriculture … and the bio-based economy' features as one, as well as 'climate action, resource efficiency, and raw materials'. With the aim of accelerating the transition to a sustainable European bio-economy, €4.7bn (in current prices) will be used to secure sufficient supplies of safe and high quality food and other bio-based products, by developing productive and resource-efficient primary production systems, fostering related ecosystem services, alongside competitive and low carbon supply chains. A separate figure (€3.5bn) is highlighted as being allocated to achieving a resource efficient and climate change resilient economy, protected ecosystems and biodiversity and a sustainable supply of raw materials, although it is not clear if these two allocations are separate or overlap.

Synergies with the EIP for agricultural productivity and sustainability are clear. Regional innovation strategies and transnational and interregional programmes should play a major promotional role, emphasising business development, investment, knowledge transfer and advisory services (funded by Rural Development policy); also applied research, pilot and demonstration projects, including sharing experience and good practice, multi-actor actions, innovation centres (funded by Research and Innovation Policy).

The Commission will increase its support for the European Institute of Innovation and Technology (EIT), proposing a budget of €3.1bn for 2014-2020 (up from €309 million since its launch in 2008). The EIT is intended to serve as an incubator of new ideas and technologies, organising researchers through cross-border, public-private-partnership 'hubs' known as Knowledge and Innovation Communities (KICs). There are currently three such KICs: sustainable energy; climate change; and information and communication technology. Under Horizon 2020, the EIT will be expanded with six new KICs including several with potential applicability to agriculture.

3.2.3.1. Summary assessment of Pillar 1 and non-CAP proposals

The proposed changes to the non-CAP measures appear broadly positive in respect of their ability to foster sustainable competitiveness and stimulate or support innovation, although the dairy package gives insufficient consideration to environmental sustainability and the research proposals are rather vague about how they will be co-ordinated with CAP funding.

In respect of the proposed changes to Pillar 1, 'greening' – however it is finally agreed - has potential to increase the environmental sustainability of agriculture and the new targeted elements of aid may help to focus support on areas and issues of particular concern for competitiveness and/or viability. However, the bulk of support will remain relatively untargeted towards either long-term competitiveness or sustainability. The redistributive element of the Pillar 1 proposals will modestly affect relative competitiveness between Member States, slightly increasing it for most new MS, in particular, and the simplified small farm approach should increase the practicality and utility of CAP for this particular target group, although their environmental sustainability will not be ensured. The FAS proposals are unlikely to deliver much, in this area of critical importance for the future.

4. COHERENCE AND LIKELY EFFECTIVENESS OF THE POLICY PROPOSALS

KEY FINDINGS

- Fundamentally, the legislative proposals for the CAP after 2012 are insufficient to ensure sustainable competitiveness and innovation in the EU farm sector. The weakest link is between the positive tenor of the rhetoric and its follow-through, in respect of the likely performance of funding on the ground, based upon past experience.
- The new package represents a departure from the overall pattern of reforms from 2000-2009, in which emphasis and resources were planned to shift away from Pillar 1 income support and towards more explicit and targeted support for separate economic, environmental and social goals in Pillar 2. These proposed reforms reinstate a perceived continuing validity in pillar 1 and will essentially blur the divide between the roles and modes of operation of instruments in both pillars, such that both contain a mix of more and less targeted aid. Key to the logic of reform is the notion of redistribution on equity and efficiency grounds, with implied positive impacts upon competitiveness and cohesion. However, the evidence suggests that these impacts will be minimal and that there is insufficient emphasis upon both environmental sustainability and innovation, within the overall approach.
- The proposals for Pillar 2 in particular offer a significant number of positive features in respect of encouraging more sustainable competitiveness and innovation. However, key to realising this potential will be ensuring that Member States and regions can be encouraged to make fullest use of it, reducing risk-aversion and promoting or incentivising much more strategic and creative use than many have yet achieved. This requires more effort in learning, exchange of good practice and capacity-building, at all levels.
- The proposals for Pillar 1 offer less by way of direct stimulus for these goals, but they may have mildly beneficial impacts in respect of reducing the competitive advantage of conventional and unsustainable sector-territories over those with high nature value, strong local cultural heritage and/or specific potential for climate change mitigation. Of greater concern, however, is the continuing scale of deadweight inherent in the overall package as a result of the continued dominant budgetary position of untargeted Pillar 1 aid. More needs to be done to demonstrate the relative cost-effectiveness of policies which enable change, over those which simply underpin current sector structures and trends, for better and for worse.

If the agricultural sector is to play its role in meeting the EU's vision for a resource efficient Europe in keeping with the EU2020 strategy, promoting resource efficiency will be essential to ensure the long term sustainability of agriculture and allow it to be competitive in the longer term. It will also play an important role in securing growth and jobs for Europe. It will bring major economic opportunities, improve productivity, drive down costs and boost competitiveness. It is necessary to fill the technological gaps, develop new technologies, products and services and find new ways to reduce inputs, minimise waste, improve management of resource stocks, adapt to and also change past consumption patterns, optimise production processes, management and business methods, and improve logistics.

This will help stimulate knowledge transfer, technological innovation, boost employment in the fast developing "green technology" sector, sustain EU trade, including by opening up new export markets, and benefit consumers through more sustainable products.

Fundamentally, however, the legislative proposals from the Commission for the CAP after 2013 do not clearly affirm these needs. Part of the weakness arises because of some ambiguity in what exactly is meant by the terms 'sustainable competitiveness' and 'innovation', in the rhetoric surrounding the package.

For the purposes of this study, we have used an interpretation of these terms by reference to the Commission's perspective, as set out in Chapter 1. However, different organisations and groupings continue to interpret them in different ways. Although some degree of restructuring of farms is inevitable over time, tensions prevail between the value of targeted measures that seek to support farms in business for environmental and social purposes, and the impacts that this has on the net sustainability and competitiveness of the agricultural sector as a whole. In addition, choices must be made about the best balance in the policy mix, between measures enabling or stimulating change directly (usually those of an investment character), and those which seek instead to create more favourable economic conditions in order to facilitate farmers' ability to initiate change. Undoubtedly, there is no single 'optimal balance' for all of rural Europe, but in general the proposals maintain an emphasis upon the second of these approaches which is not supported by clear evidence of its enduring value. These tensions and considerations need exploring and articulating more clearly, so that clearer judgements can be made, for example, about what kinds and rates of structural change in farming, in different parts of Europe, are most consistent with maintaining sustainable competitiveness across the EU-27.

Innovation has become a new buzzword and core principle of the EU2020 strategy and the policies that stem from it. However it is not explicitly defined in any of the related policy documents. In practice, the degree to which the proposals are coherent in respect of innovation will depend, to a large degree, on whether innovative approaches are developed and implemented successfully. The weakest link at present, we suggest, is between the positive tenor of the rhetoric at EU level and evidence of its performance on the ground.

4.1. Coherence in the overall architecture of the proposed CAP reforms

We have seen in Chapter 2 that the principal CAP measures for stimulating action directly to help improve both the competitiveness of farming and its sustainability are currently concentrated in Pillar 2. Indeed the Rural development Regulation was conceptualised precisely to do this. Thus it is in Pillar 2 that we find the measures for improving human capital in farming through training, advice and knowledge transfer. Here too are the measures to assist farm restructuring (early retirement, new entrants, land consolidation), assistance for investments in farm and rural infrastructure and support for the marketing of agricultural products. Pillar 2 contains significant measures aimed at improving the environmental sustainability of farming and rural areas through both annual and capital aid (agri-environment measures, marginal area assistance, forestry and other support for environmental investment). Support to assist the diversification of the rural economy and the building of social capital in rural areas are also key functions of the second Pillar.

The essential function of CAP Pillar 1 supports has become a rather more general income support, although the incorporation of horizontal requirements for cross-compliance and the Farm Advisory System have put into place some basic provisions for the sector's environmental sustainability. Amongst other things, Pillar 1 income support might be

perceived as a way of moderating the pace of structural change in the developing rural economy – a 'cushioning' effect (Dwyer, 2007). However, given current distributional patterns, the ex-post effects of the policy suggest that it is not stopping, but accelerating, the disappearance today of small farms in many regions, while in several of the new Member States, the gradual introduction of CAP pillar 1 aid appears to be stimulating increased productivity but also inequality, potentially damaging environmental assets and promoting rural instability.

In the creation of the two-Pillar CAP under the Agenda 2000 reforms, it was anticipated that although the first Pillar initially accounted for most of the public financial resources devoted to agriculture, the balance would gradually change as more resources were switched from the first to the second Pillar. This would mark a changing policy emphasis away from generalised support for the farm sector, to specific actions to stimulate rural competitiveness, support sustainability and economic diversification, and support public environmental and social goods. This transformation of the CAP was particularly espoused by the last two EU Commissioners for agriculture and rural development, Mr Fischler and Mrs Fischer-Boel, as demonstrated in public statements over the past decade (Erjavec et al, 2009).

The appointment of a new Commission and Commissioner for agriculture and rural development in 2010, at a time of economic crisis, has changed perspectives in Brussels for the future CAP. The policy choice embraced in the Commission's proposals for the CAP towards 2020 is to halt the resource-switch to Pillar 2, and to redistribute and introduce measures aimed more explicitly at competitiveness and sustainability, in Pillar 1. This seems to reflect a political judgement that there is little appetite for finding the additional resources for Member State co-financing of any further increase in the Pillar 2 budget, and therefore that further shifts in this direction are not now politically feasible. This is particularly so given the general economic stress and austerity in the public finances of many of the EU Member States. The switch in strategy also reflects a desire to try and find simpler, broader-brush measures to apply to all, or most, farmers in Pillar 1 rather than devoting more resources to what are seen as complex and administratively expensive programmed measures in Pillar 2. This is a desire felt most strongly among the new Member States, for whom the burden of attempting to commit significant sums of funding within RDPs, whilst remaining unable to offer their farmers the full support of direct payments, has weighed most heavily in the current funding period. However, the degree to which this is a temporary pause in a direction of travel towards the Pillar 2 model, or an enduring change in the Commission's vision for the future CAP, remains to be seen.

So, in respect of coherence, we can identify that the CAP reform package as presented in the draft legislative proposals represents a changed vision, compared to that which prevailed within the Commission in the previous decade, but potentially one which is as coherent as that which it replaced. In the new framework, we can identify a policy with two pillars pursuing much more similar goals than previously, distinguished more by the characteristics of their constituent tools (i.e. regular annual versus multi-annual or investment aids; generalised and standardised versus highly flexible, targeted and adaptable to local conditions), than by any major difference in purpose. In addition, distributional aspects of aid, and cohesion goals, are much more explicitly considered than before, although there seems a lack of clarity in respect of how best to achieve these.

4.2. Coherence in the approaches proposed within each Pillar of the CAP

The proposals are presented as both coherent and consistent with the stated objectives of promoting sustainable competitiveness and innovation. However, this applies much more strongly in respect of the proposals for Pillar 2 of the CAP, than it does in respect of those for Pillar 1, where likely policy impacts are still a topic of fierce debate. In respect of their internal coherence, it would be possible to criticise both pillar's proposals because, as explored in chapter 2, the CAP's overarching goals contain a degree of implicit tension. In addition, the accumulated evidence suggests a likely significant gap between CAP aspirations and achievements.

In Pillar 1, the mix of direct payments, greening and the expansion of options for targeting aid towards particular 'needy' situations (young and small farms, less favoured areas and vulnerable sectors) affirm simultaneously that the EU wishes to offer support to all its farmed area but that it recognises value in differentiating the level of support offered, according to measures of relative need and potential public benefit. In respect of promoting sustainable competitiveness, therefore, there remains a significant tension between so-called 'universal' measures (however unevenly applied), which clearly interpret competitiveness mainly in the sense of maintaining active farming across the territory, and measures which appear to seek to stimulate change by favouring some kinds of farming over others, when giving support. The dominant stakeholder preoccupation with short-term distributional aspects of pillar 1 aids and their claimed effects upon competitiveness obscures an informed discussion and debate about what should be the rationale directing income support to the farm sector, in the widely varying context of Europe's rural areas and against the backdrop of uncertain global economic conditions.

There is a need, therefore, for increased clarity to be provided about the objectives and associated intervention logics of the new suite of direct payments in Pillar 1, to ensure greater coherence, particularly in relation to promoting long-term competitiveness and ensuring that this is achieved in a sustainable way.

Despite the growing body of evidence that demonstrates the value of biodiversity as a capital asset in this context, it continues to be considered as placing constraints on competitiveness, in many parts of Europe (Poláková et al, 2011). Water scarcity is set to increase, going forwards, and climate change and energy demands are already placing new priorities on rural resource use. The value of biodiversity and ecosystem services must be articulated clearly in the reform package and more strongly integrated into its constituent measures, to ensure that all Member States take full account of the environment when pursuing economic growth and development in rural areas.

In respect of environmental elements within Pillar 1, we have concluded that the proposals for the Farm Advisory System are insufficiently ambitious to match the potential in the rest of the reform package for improved environmental performance.

In Pillar 2, the new emphasis, in both the framework and the measures, upon more strategic and collaborative planning and implementation of development actions is coherent with seeking to improve its ability to promote sustainable competitiveness and innovation. However, given strong path-dependency in RDP implementation and a lack of specific incentives to adopt new approaches, there will undoubtedly be tensions between these new features and what the evidence suggests will be, by 2014, established, conservative and often underperforming ways of working among ministries, paying agencies and beneficiary groups.

The new structures and the increased flexibility afforded to Member States require new approaches to developing and implementing RDPs. It will be important to ensure that sufficient and sustained guidance and practical assistance is provided to help explain clearly the potential offered by the new rural development regulations and to help build the capacity needed in Member State/regional agriculture and environment departments as well as among stakeholders more generally, to design and implement policies capable of delivering effectively. If increased cooperation and innovation are to be core to future rural development policy and sustainable environmental management, then increased collaboration and consultation between all interested stakeholders (environmental, farming and rural communities) will also be an essential element in the development of the 2014-2020 RDPs. Much stronger emphasis upon the active networking, extension, research and practical experimentation could greatly improve the effectiveness of the approach.

This is particularly relevant in relation to the enhanced emphasis on innovation. Apart from the EIP and the opportunity to set up innovation partnerships at local level, innovation is a general principle that is stated throughout, but it is hardly embodied in the concrete proposals for future intervention. This was pointed put by the recent report of the European Court of Auditors on the CAP reform proposals.

Innovative approaches, by their very nature, may lead to successful outcomes or may fail. There is a need, therefore, for some form of *failure tolerance* to be built into RDPs and that this is deemed to be acceptable to both managing authorities and paying agencies, as well as the Commission. However, this is not articulated within the proposals as they currently stand. Indeed, there is an increased emphasis on performance, with a 'performance reserve' held back from Member States Pillar 2 allocation, to be awarded only if they are deemed to have delivered against the objectives set out within the Partnership Contracts. Whilst initiatives to enhance the effectiveness and efficiency of spending are generally to be welcomed, there is a significant risk that this particular element could make Member States more risk averse when it comes to funding innovative approaches, rather than less.

The nature of the challenge to use Pillar 2 funding to maximum effect appears insufficiently recognised by the Commission. Although the rhetoric in relation to sustainable competitiveness and innovation in Pillar 2 is fairly consistent, this does not translate through into the suggestions for key actions in the Commission Staff Working Document on the CAP. For example, many of the areas for investment that are highlighted do not refer to the need to take account of sustainability considerations. In practice, for the integration of environmental sustainability to be ensured, environmental safeguards need writing into the legislative texts more consistently, eligibility criteria need to reflect sustainability at the level of the RDP, and SEA and EIA processes need to be properly applied and enforced to ensure that perverse negative environmental impacts do not occur. Likewise, when considering how best to ensure viability, territorial cohesion and competitiveness in a mutually supportive way, programming authorities must be required to develop criteria, monitor the results of their funding and seek to continually improve targeting in order to deliver against these goals. Involving stakeholders, by requiring the publication of relevant information on these details and discussing policy performance with them, is also a vital ingredient in successful policy learning.

For that reason, it is suggested that a more ambitious approach to this agenda is needed, if real progress is to be made by 2020.

In summary, therefore, there remains considerable additional scope to seek to promote sustainable competitiveness and innovation, within a reformed CAP. In addition, the analysis also highlights the need, and the potential value, of seeking to strengthen the co-ordination of CAP instruments with the operation of a number of key non-CAP mechanisms and processes, in order to reduce conflict and overlap and promote synergistic developments. Our analysis highlights the relevance of this in respect of the 2011 dairy package and future EU funding for research and development.

5. CONCLUSIONS AND RECOMMENDATIONS

KEY FINDINGS

In order to promote sustainable competitiveness and innovation in European agriculture, there is a need for the CAP to do more to:

- highlight the importance of knowledge and capacity building at regional, national and supra-national levels, among all beneficiaries and stakeholders;
- incentivise directly the development and adoption of mechanisms to encourage collaborative working, especially at the territorial and issue- or sector-specific levels (where concerted effort between actors will produce the greatest results);
- stimulate institutional capacity-building among the policy delivery bodies, improving their ability to work effectively with integrated goals and delivery systems at local level, and to engage beneficiary groups in constructive, two-way dialogue and policy development;
- increase the use of LEADER-style, strategic, multi-objective and partnership-based planning and delivery mechanisms within the framework, especially as applied to farming and the food supply sectors, and across the research-extension-farming community, as well as oriented to include sustainability much more strongly than has hitherto been achieved.

These points guide our recommendations for changes to the proposed legislative package. These are given in full in the Executive Summary, but in brief, here:

- To improve balance, all Member States should spend a minimum proportion (20-25%) of their total EU CAP allocation on rural development under the EAFRD.
- Pillar 1 proposals should place requirements upon Member States and the Commission, to monitor and review their impacts upon sustainable competitiveness and amend provisions accordingly at mid-term.
- Pillar 2 proposals should incorporate greater sustainability safeguards in respect of all measures, and Managing Authorities should be required to devise specific eligibility and targeting criteria for all investment aids, to stimulate change that is beneficial in economic, environmental and social terms.
- The Farm Advisory System provisions should be strengthened considerably via a number of specific changes.
- Member States should be required to produce a strategy justifying their chosen application of greening measures to promote sustainability and competitiveness.
- There could be efficiency gains if the future distributional criteria for a new Pillar 1 area payment explicitly include cohesion, and reduce or remove the current emphasis upon market compensation considerations.
- The governance of the new EIP should be strengthened at EU level, in order to ensure that it is sufficiently recognised and prioritised within RDPs.
- The Commission should add provisions which specifically incentivise risk-taking in innovative actions within RDPs, and prevent the 'performance reserve' mechanism from disincentivising innovation.
- The rules governing all the EU 'development' funds (ERDF, ESF, EMFF and EAFRD) should be harmonised, so that decommitment, disallowance and clawback provisions, procedures for devolved delivery, control and reporting, are identical.

- The activities and the independence from the Commission of the future networks for Rural Development should be strengthened with more resources for exchange and practitioner events.
- Minimum thresholds for spending on knowledge transfer, information and advice measures may be needed within RDPs, while a maximum proportion (perhaps 5%) should be stipulated for the use of risk management measures.

5.1. Some Conclusions

The key policy implications of the study are as follows.

- Greater clarity on the definitions of sustainable competitiveness and innovation are needed to ensure these terms are clearly understood by all those involved in CAP policy development and implementation;

- The current emphasis upon Pillar 1 aids and their distribution, in the debates surrounding the reforms, is not justified by the available evidence of policy impacts. Highly successful examples of sustainable competitiveness exist which do not depend upon having higher levels of direct payment support than their competitors. Whilst the arguments for reducing large differences in income support which do not correspond to any objective measure of need may be justified, they should not be confused with arguments to improve sector competitiveness, which require a quite different rationale. In building sustainable competitiveness, evidence suggests that the 'cushioning' role of income support is only one, and certainly not the most important, element for success. Knowledge, skills, confidence and their capacity to enable effective adaptation are much more critical.

- Developing a better toolkit is not enough – ensuring that these are translated into practical implementation is critical and this requires a number of factors to be in place, including appropriate eligibility criteria, stronger environmental safeguards and greater institutional capacity within the managing authorities and paying agencies, delivery bodies and extension services, to understand and identify how best to stimulate positive results;

- Recommendations for monitoring and reporting should be enhanced, with more EU financial provision and technical support and guidance to ensure best practice is applied in the Member States, also by a greater focus on ensuring the usability and accessibility of evaluations, to ensure that Managing Authorities have to track how well their measures are taken up by the real target groups in each sector/territory, and discuss these findings actively with stakeholder groups;

- A failure tolerance needs to be built into RDPs so that innovative approaches are able to flourish and are not constrained by Managing Authorities, fearing the loss of their performance reserve;

- Guidance and funding need to foster much more active and interactive kinds of network behaviour, in respect of the National Rural Networks (NRN), the European Network for Rural Development (ENRD) and the new innovation partnerships. New innovation networks could also be promoted for whole territories and sectors, both within and between Member States, to increase the diffusion of learning from successful examples in specific places and contexts;

- More significant requirements and resources are needed to ensure a comprehensive Farm Advisory Service in all Member States, improving the type of information and advice currently available to all farmers to help them specifically in the fields of innovation and sustainable competitiveness.

Agriculture plays a key role in a low carbon resource-efficient economy and in satisfying global level demands for food and renewable resources: feed, energy, fibre and other industrial raw materials. However, in future agricultural production systems themselves need to become significantly more low carbon and resource-efficient, less dependent on fossil fuels and more closely aligned with ecosystem properties and ecological processes.
Rural areas, and farming systems, are also valued for the amenities they provide; and public well-being and welfare (mental and physical health and sustained opportunities for contact with nature) should also shape future farm development.

Looking at the next programme period, innovation in agriculture has to be redefined in these terms. Relevant conceptual frameworks exist but have insufficiently been translated into policy and practice, so far. They include:

- the resilience of socio-ecological systems;
- the multifunctionality of rural space;
- more recent work on value added chains;
- a paradigm shift towards developing 'appropriate technology' which is attuned to natural and structural variations across the EU.

Agricultural knowledge and innovation systems, and the agricultural sector as a whole, need to rapidly evolve and be realigned in the above frameworks. Analyses in the context of the "International Assessment of Agricultural Knowledge, Science and Technology for Development" show that the further evolution of innovation systems needs to go beyond technical questions.[10] The largely positive experiences with the LEADER initiative in the EU and member states programmes like *Regional Action – Rural Areas Shaping the Future* in Germany indicate that the changes needed also concern the institutional design and functioning of innovation processes (Peter and Knickel, 2006).

There are many and varied opportunities for more resilient economic systems, examples are distributed renewable energy systems and value-added food chains. Many related developments start from the grassroots. More effective linkages between agricultural research and farming practice are needed, to help embed research in the social and cultural context. More attention needs to be paid to the idea of adaptive capacity and related institutional changes and human capacity building, to enable successful transformation. Mainstream agricultural knowledge and innovation systems still focus too much on technology and capital equipment, they tend to be disconnected from the reality of large parts of farming, and innovation practice tends to be top-down. And in many parts of the EU, these systems remain weak and poorly performing, and/or accessible only to a minority of farmers.

Agricultural and rural policy can provide an enabling environment for the kind of changes needed. The kind of innovations that are generated and adopted in the agricultural sector are determined by the prevalent and expected market, economic and socio-cultural conditions. Recent EC documents have explained the innovation goals for CAP; but for the policy to remain relevant, the framework under which it functions has to prove itself

[10] http://www.agassessment.org/

capable also to address the main challenges which EU agriculture will face in the current decade: economic, environmental, social and territorial.

In the area of extension services, rural development policy should support the formation of networks and workshops where producers of various types are enabled and supported to join together and, using modern communication approaches, search for concrete solutions for individual groups, sub-sectors and territories. Support to extension services, applied researchers and groups of farmers should constitute an important part of overall support, to enable these developments. This is similar, but not identical to, the concept of the EIP: The main difference is that whereas EIP emphasises the act of innovation, this type of process is more about diffusing knowledge and increasing its application, in a variety of situations. It could be achieved using the new RDP measure for collaboration, in conjunction with other aids and/or within the context of a strengthened FAS.

Furthermore, special attention should be paid to the formation of more efficient research support for raising competitiveness and innovation. Rural development policy funds should be used to support the formation of demonstration centres, projects aimed at filling technological gaps, researching biological, mechanical and organisational progress, adapted initially to the situation in a concrete environment in a Member State. A lot could be achieved by a more efficient transfer of solutions from foreign environments which, however, need to be properly tested and adapted to the intended environment of application within the EU. Public support to research and education institutions has multiplier effects. In the current economic situation and considering the social role of agriculture, this merits support from the CAP and from DG Research, working closely together to manage centrally-commissioned action/applied research hubs, and to provide guidance to Member States in respect of relevant RDP actions, including the EIP.

National decision-makers need to be convinced about the long-term value of knowledge and innovation, as they still view income support as the main tool for raising competitiveness and pay less attention to support to restructuring and knowledge transfer. An important contribution could also be made by the discussions and strategies adopted in the European Parliament and other European institutions. Innovation should be pursued not only in stronger political rhetoric, but in real support processes and networks designed for specific sectors, groups of farmers and coherent territories.

We conclude that in order to promote sustainable competitiveness and innovation in European agriculture, there is a need for the CAP to do more to:

- highlight the importance of knowledge and capacity building at regional, national and supra-national levels, among all beneficiaries and stakeholders;

- incentivise directly the development and adoption of mechanisms to encourage collaborative working, especially at the territorial and issue-or sector-specific levels (where concerted effort between actors will produce the greatest results);

- stimulate institutional capacity-building among the policy delivery bodies, improving their ability to work effectively with integrated goals and delivery systems at local level, and to engage beneficiary groups in constructive, two-way dialogue and policy development;

- increase the use of LEADER-style, strategic, multi-objective and partnership-based planning and delivery mechanisms within the framework, especially as applied to

farming and the food supply sectors, and across the research-extension-farming community, as well as oriented to include sustainability much more strongly than has hitherto been achieved.

These points guide our recommendations for changes to the proposed legislative package for the CAP, as set out in the next section.

5.2. Recommendations

To improve the balance and coherence of the overall package:

- More emphasis should be placed upon the enhanced development of effective Pillar 2 programmes as a key instrument in the reform, in which funding is used strategically to achieve specific goals for sustainable territorial and sector competitiveness, as well as greater cohesion and resilience in rural areas. It is recommended that the EC ensures that all Member States will spend a minimum proportion of their total EU CAP allocations on rural development under the EAFRD, in recognition of its specific potential to promote sustainable competitiveness and innovation, and in support of a better balance in overall resource allocations. This proportion could be set initially at 20-25%, to be reviewed at mid-term. This proposal starts from the point that the relative importance given to Pillar 2 measures in the Member States is clearly related to the existing, uneven proportion of total CAP receipts that it represents, relative to CAP as a whole.

- The Pillar 1 proposals should place greater requirements upon Member States and the Commission, to monitor and review their impacts upon sustainable competitiveness, with specific provision to amend cross-compliance, the greening provisions and the other targeted options for support (young farmers, disadvantaged areas), taking account of review findings, at mid-term.

- The Pillar 2 proposals should incorporate greater sustainability safeguards in respect of all measures, and Managing Authorities should be required to devise specific eligibility and targeting criteria for all investment aids, in particular, which take account of local conditions and are clearly designed to improve the additionality of funding, as well as to stimulate change that is beneficial in economic, environmental and social terms. All relevant rural stakeholders should be involved in the process to determine these criteria, as well as to monitor and reflect on their performance. Examples of good practice in this respect already exist, for instance in Estonia (Dwyer et al, 2010).

In respect of the detailed proposals for CAP Pillar 1, the following recommendations are made.

- The Farm Advisory System provisions should be strengthened considerably. Member States should be required to provide extension services sufficient to enable at least 25% of all registered farmers to benefit from advice and support, in all agricultural regions, over the period (the average proportion in 2009 was 5%). The scope of the FAS should include not only cross-compliance but also how to maximise the cost-effective implementation of greening measures, and support to incorporate environmental sustainability into all project proposals for Pillar 2 programmes. A ring-fenced element of CAP funding should be identified to be used specifically to support the expansion and strengthening of FAS across the EU-27 with a particular emphasis upon supporting high-quality services in those Member States with little prior experience of

this type of service. Within this programming period, the Commission should take a lead in reaching EU agreement on minimum acceptable professional standards and competencies in FAS, to ensure that farmers throughout the EU have access to suitably qualified and competent practitioners.

- In whatever form it eventually is agreed, the so-called 'greening' package should be supported with the requirement for Member States to produce a strategy justifying how they have used their discretion to ensure that its application will promote enhanced environmental standards and greater synergies between sustainability and competitiveness. The Commission could also require EEA monitoring and oversight of the implementation of the package, in partnership with relevant NGOs. This probably requires establishment of environmental baseline values and some evaluation of the anticipated increase in environmental performance that should be expected from greening, by 2020.

- Whilst we stress that direct payments are not a key instrument to promote sustainable competitiveness, we would suggest that there could be efficiency gains if the future distributional criteria for a new Pillar 1 area payment could be more objectively based and explicitly include cohesion considerations, and reduce or remove the current emphasis upon market compensation considerations.

In respect of the detailed proposals for CAP Pillar 2, in addition to the critical point about selection criteria stated in under 'balance' above, the following recommendations are made.

- The governance of the new EIP should be strengthened at EU level, in order to ensure that it is sufficiently recognised and prioritised within RDPs. For instance, it should have dedicated Commission support and Member State reporting requirements, the Commission should be able to help MS develop their proposals for EIPs separately from the process of RDP approval, and to ensure a ring-fenced share of technical assistance to be devoted to EIPs. The EIP network should require minimum levels of active participation by the EIPs within each programme, specified in relation to attendance at networking events, contribution to exchange of good practice and specific engagement in collaborative partnerships between EIP, to encourage shared learning on common themes (e.g. resource efficiency, adding value and so on). We suggest it would be beneficial to offer enhanced co-financing rates for EIP-linked projects.

- More broadly, the Commission should add a provision which specifically incentivises risk-taking in innovative actions within RDPs (not just within EIP), and prevents the 'performance reserve' mechanism from disincentivising innovation. This provision could, for instance, require all RDPs to include a section proposing new measure-packages to achieve innovation in priority sub-sectors or territories, linked to specific targets which integrate economic, environmental and social goals for those territories or sub-sectors. Like EIP, such packages should be subject to higher co-financing rates than the norm for the relevant RDP, and should become a second basis for judgements about the release of the performance reserve at mid-term, such that the reserve will only be released if RDPs demonstrate both a degree of efficiency in spending AND successful establishment of new measure-packages. The tolerance of failure at project level should also be higher, for projects initiated under these measure-packages (i.e. disallowance or clawback should apply above a financial threshold which is higher than that which applies more broadly).

- At present, while the new Pillar 2 regulation itself promises important developments in respect of enhanced effectiveness, it could be undermined by the continuing rigidity of the CAP financial regulations governing the EAFRD, which are inconsistent with those

which apply to other EU funds serving similar 'enabling development' purposes (ERDF, ESF, EMFF). In order to strengthen the achievement of the Partnership Contracts, as well as to ensure the effective continuation of LEADER and its development as a multi-funding vehicle, the rules governing all of these funds should be harmonised, so that decommitment, disallowance and clawback provisions, procedures for devolved delivery, control and reporting, should be identical. This is an essential ingredient in ensuring the accessibility of EAFRD funds to those who will generate most benefit from them, at local level. It is particularly important for poorer regions in federal countries and for the new Member States, where other EU funds are a significant influence on RD.

- The activities and the independence from the Commission of the future networks for Rural Development and the Evaluation of Rural Development should be strengthened, to enable these bodies to expand the range of their activities and the number of actors who become involved, within the Member States. In particular, more resource should be devoted to organising and facilitating knowledge exchange events which enable RD practitioners as well as policy makers to learn directly from each other's experience with innovative or novel approaches which are well-attuned to address the new challenges.

- It may be appropriate to consider the need for minimum thresholds for spending on knowledge transfer, information and advice measures, within RDPs.

- In recognition of its relatively untargeted income support role, a maximum proportion of RDPs (perhaps 5%) should be stipulated for the use of risk management measures under Pillar 2, so that these do not detract from the use of other measures more directly promoting rural development. Member States should also be given the option of running these as a single national scheme, operated alongside Pillar 1 payments.

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ANNEX 1: Single payment regulation and Article 68 by Member State

MS	Start SPS	Regions	Model SPS/SAPS([2])	Minimum requirements	Sectors remaining coupled and transitional coupled payments of the Fruit and Vegetables sector	Specific Support under Articles 68-72
BE	2005	Flanders and Brussels	SPS historical	100 €	Suckler cow premium: 100% Slaughter premium calves: 100% Protein crops, Flax for Fibre	For a better quality–all sectors 68(1)(a)(ii)
		Wallonia			Suckler cow premium: 100% Protein crops, Flax for Fibre	Grassland premium – breeding 68(1)(b)
BG	-	-	SAPS	0,5 ha 100 €	F&V: Transitional soft fruit payments: 100%	In the dairy sector 68(1)(b)
CZ	-	-	SAPS	1 ha	Separate sugar payments: 100% Aid for dairy farmers F&V: Separate payment for tomatoes intended for processing: 100%	Aid for dairy farmers 68 (1) (b)
DK	2005	One region	SPS dynamic hybrid	2 ha 300 € Sp	Special male bovine premium: 75% Sheep and goat premium: 50% Starch Potato, Dried fodder, Flax for Fibre	Agri-environment Measures 68(1)(a)(v) Perennial Energy Crops 68(1)(a)(i)
DE	2005	Bundesländer (Berlin included in Brandenburg, Bremen in Lower Saxony and Hamburg in Schleswig-Holstein)	SPS dynamic hybrid moving to a flat rate	1 ha	Protein Crops, Nuts, Starch Potato, Dried fodder, Flax for Fibre	Grassland premium in dairy sector 68(1)(b)
EE	-	-	SAPS	1 ha	-	In the dairy sector 68(1)(b)
IE	2005	-	SPS historical	100 €	Protein Crops, Dried Fodder	Grassland Sheep Scheme and Grassland Dairy Efficiency 68(1)(b) Conservation in the Burren 68(1)(a)(i)
EL	2006	-	SPS historical	200 €	F&V: - Until end 2010: 30% of the envelope for tomatoes intended for processing	Improvement of quality of olive oil, durum wheat 68(1)(a)(ii) LFA producers in meat sectors

					- Cotton, Sugar, Dried fodder, - Small Aegan Islands 100 %	(beef, sheep and goat) 68(1)(b) Restructuring programmes in LFA Mountainous areas 68(1)(c)
ES	2006	-	SPS historical	100 €	Suckler cow premium: 100% Slaughter premium calves: 100% Slaughter premium bovine adults: 40% Seeds, Protein Crops, Rice, Nuts, Cotton 35%, Sugar, Dried fodder, Flax for Fibre, Starch Potato 60% Outermost regions: 100% F&V: - Until end 2010: 50% of the envelope for tomatoes intended for processing	Improving quality of legumes, tobacco sheep and goat farmers and milk products 68(1)(a)(ii) National programme crop rotation 68(1)(a)(v) Aid to sheep and goat producers and milk producers in LFA 68(1)(b) Ex article 69 measures (beef ,cotton, sugar, milk) 72(3)
FR	2006	-	SPS historical	100 €	Suckler cow premium 75% Seeds (some species), Protein Crops, Rice, Nuts Starch Potato, Dried fodder, Flax for Fibre Outermost regions 100% F&V: - Until end 2011: 50% for tomatoes intended for processing - Until end 2010: 98% of national enve	Additional aid for protein crops 68(1)(a)(i) Aid for quality of durum wheat 68(1)(a)(ii) To maintain organic farming 68(1)(a)(v) Diversification of crop rotation 68(1)(a)(v) Aid for calves from suckling cows and for organic labelled calves; aid for sheep
IT	2005	-	SPS historical	100 €	Seeds, Protein Crops, Rice, Nuts, Sugar Dried Fodder, Flax for Fibre F&V: - Until end 2010: 50% for tomatoes intended for processing - Until end 2010: 100% for pears, peaches and prunes intended for processing. - From 2011 until end 2012: 75% of en	Improvement of quality (beef and veal; sheep and goat meat; olive oil; dairy products; tobacco; sugar; floricultural products) 68(1)(a)(ii) Crops rotation 68(1)(a)(v) Insurance payments for harvests, animals and plants 68(1)(d)
CY	-	-	SAPS	0,3 ha	F&V: - Until end 2010: 100% of national envelope for citrus	-

					fruits - Until end 2012: 75% of national envelope for citrus fruits	
LA	-	-	SAPS	1 ha	Separate sugar payments: 75% F&V: Transitional soft fruit payment: 100%	In the dairy sector 68(1)(b)
LITHUANIA	-	-	SAPS	1 ha	Separate sugar payments: 100% F&V: Transitional soft fruit payment: 100%	-
LU	2005	One region	SPS static hybrid	100 €	None	-
HU	-	-	SAPS	1 ha 0,3 ha for orchards and vineyards	Separate sugar payments: 100% F&V: - Separate F&V payments (tomatoes and other fruits): 100% - Transitional soft fruit payment: 100%	In the dairy sector 68(1)(b) For tobacco and fresh fruit and vegetables growing areas subject to restructuring and development programmes 68(1)(c)
MA	2007	One region	SPS regional	0,1 ha 100 € Sp	None	-
NL	2006	-	SPS historical	500 €	Seeds for fibre flax Starch Potato, Dried Fodder, Flax for Fibre	For transport over water 68(1)(a)(i) Animal welfare 68(1)(a)(iv) Electronic I&R for sheep 68(1)(b) Weather insurance 68(1)(d)
AT	2005	-	SPS historical	100 €	Suckler cow premium: 100% Nuts, Starch Potato, Dried Fodder, Flax for Fibre	Dairy cow premium 68(1)(b)
PL	-	-	SAPS	1 ha	Separate sugar payments: 100% F&V: - Separate F&V payment for tomatoes: 100% - Transitional soft fruit payment: 100%	For cultivating pulses and herbage legumes 68(1)(a)(i) For keeping cows in South-eastern Poland and sheep in Southern Poland 68(1)(b)
PT	2005	-	SPS historical	0,3 ha	Suckler cow premium: 100% Slaughter premium calves: 100% Slaughter premium bovine adults: 40% Sheep and goat premium: 50% Seeds: 100% Protein Crops, Rice, Nuts, Cotton, Sugar, Dried Fodder	Extensive handling systems for autochthonnous races (beef, sheep, goats) 68()(a)(i) Quality improvement of agricultural products (crops and animals) 68(1)(a)(ii)

					Outermost regions: 100% Agri-environmental measures for protection of olive national patrimony and support to extensive pasturing 68(1)(a)(v) F&V: Until end 2011: 50% of envelope for tomatoes intended for processing	Agri-environmental measures for protection of olive national patrimony and support to extensive pasturing 68(1)(a)(v) To economic vulnerable types of agriculture in milk and sheep sectors 68(1)(b)
RO	-	-	SAPS	1 ha	Separate sugar payments: 100% F&V: Until end 2011: 50% of envelope for tomatoes intended for processing	For improving quality in the organic farming sector 68(1)(a)(ii) To the milk sector in LFA 68(1)(b)
SI	2007	One region	SPS regional	0,3 ha/ 100 € Sp	Special male bovine premium: 65% Protein Crops, Nuts	For extensive rearing of female bovine animals and dairy payment for farmers in mountain areas and on steep hills 68(1)(b) Preserving animal rearing on farms with permanent pastures 68(1)(c)
SK	-	-	SAPS	1 ha	Separate sugar payments: 50% F&V: - Separate F&V payment: 67% (Art.127of Reg. 73/2009) Separate transitional F&V payment: 33% of envelope for tomatoes intended for processing (Art. 128 of Reg. 73/2009)	In the dairy sector 68(1)(b)
FI	2006	Three regions (based on reference yield)	SPS dynamic hybrid moving to a flat rate	200 €	Sheep and goat premium: 50% Seeds (timothy seed), protein Crops, Starch Potato, Dried Fodder; Flax for Fibre	Supporting beef and veal production; dairy cow premium 68(1)(b) Ex-Art 69 measures (arable crops) 72(3)
SE	2005	Five regions (based on reference yield)	SPS static hybrid	4 ha 100 € Sp	Special male bovine premium 74.55% Starch Potato, Dried Fodder	Ex-Art 69 measures: Improving quality and marketing (all sectors) 72(3)

UK	2005	England normal England – moorland England – SDA minus moorland	SPS dynamic hybrid moving to a flat rate	1 ha 200 € Sp	Protein Crops, Nuts Dried Fodder, Flax for Fibre	-
		Scotland	SPS historical	3 ha 200 € Sp	Dried Fodder, Flax for Fibre	
		Wales	SPS historical	1 ha 200 € Sp		
		Northern Ireland	SPS static hybrid	100 €		

Source: European Commission (2011f)

ANNEX 2: CASE STUDIES OF KEY POLICY APPROACHES

1. Risk Management and its application: Italy

The CAP Health Check in November 2008 allowed Member States to redistribute a small proportion of direct support granted under Pillar 1 of the CAP to the development of risk management measures. There are currently three types of risk management supported by Pillar 1. Two are designed and managed under Article 68 of Council Regulation 73/2009. The third, the Income Stabilisation Tool (IST), is controlled by the single CMO regulation.

Much interest in insurance schemes in recent years, both in United Sates and in Europe, is arguably due to the inclusion of two measures in the WTO Green Box, government financial participation in income insurance programmes or income safety nets, and payment for relief from natural disaster. Article 68 allows Member States to make financial contributions to crop, animal or plant insurance premiums against economic losses caused by adverse climatic events and animal or plant diseases or pest infestation and by mutual funds for animal and plant diseases and environmental incidents. The WTO's requirements limit the financial contribution to where the production losses incurred over the year are 30 per cent higher than a historic reference figure calculated over the past three years. The insurance indemnities, which are paid directly to farmers, must, in no circumstances, exceed the loss reported. A maximum of 65 per cent of the insurance premium can be financed by public funds, with the remainder payable by the farmer, and Member States' expenditure will be co-financed by the Community at a rate of 75 per cent. Four Member States' (France, Italy, Greece and Belgium) notified €350 million in subsidies in 2010 for these new provisions.

Risk management is viewed as an important market mechanism in the Italian rural context and has varying impact on farm competitiveness at a territorial level. The main relationship between risk management and farm competitiveness in Italy relates to price volatility in the agricultural market, making farmers particularly vulnerable to market shocks.

Price volatility has increased in the EU market since 2005, particularly for some commodities such as wheat, maize, rapeseed and sunflowers. An increasingly unstable context usually has adverse effects on farm competitiveness via:

- greater risk premium attached to investments and thus lower rate of investment;
- greater difficulty of accessing credit;
- increasing contract risk;
- more difficult long-term planning; discouraging investment in production innovation, brand promotion and customer relationships (at the processing level) (Matthews, 2010).

The price volatility effects have been confirmed by interviews with experts, who also said that in a context where only traditional insurance schemes are used, a specific initiative by the Italian government was essential, as well as greater capacity for institutional innovation. Insurance schemes are considered an important policy in Italy as illustrated in the table below. Although the national fund, called "Fondo di solidarietà nazionale", has declined significantly in recent years, this is due to severe cuts to the public budget rather than an issue of changing relative priorities.

Table 3: Resources for risk management in Italy

SOURCES OF FINANCING	PUBLIC FUNDS (million €)			
	2010	2011	2012	2013
Article 68 (Reg EC No 73/2009)	70.0	70.0	70.0	70.0
Article 68 National co-financing	23.3	24.3	24.3	23.3
Wine CMO (Reg EC 479/2008)	36.0	36.0	36.0	36.0
National Fund (Fondo di Solidarietà Nazionale) (DLgs 102/2004)	51.9	16.7	16.7	-
TOTAL	**181.2**	**147.0**	**147.0**	**129.3**

Risk management schemes in Italy are unevenly distributed. The greatest values are concentrated in the North (78 per cent of contracts and insured assets) and the Centre, with a decreasing share in the South. Currently 24% of insurance contracts are associated with only few types of production: vineyards, corn, apples and rice. The scope of contracts is very concentrated on hail insurance (97% of total contracts in 1999, 62% in 2009), with a prevalence of mono-risk insurance. Recently the pluri-risk insurance moderately increased (hail + other climate events), whereas multi-risk ones (insurance premium against production losses, even independent from climate events), have a marginal share of total contracts (3%).

This uneven territorial distribution is due to several factors. Firstly, hail is particularly prevalent in some regions/areas, causing serious damage to crops. Secondly, farmers in southern regions tend to adopt different means of risk management risk, more focused on internal resources (household pluriactivity, crop and income diversification, compensation for relief from natural disaster). Thirdly, in northern regions intermediate organisations usually operate, such as Consortia of producers (Consorzi di difesa), which are rooted in their cooperative tradition: they advise farmers about contracts, reduce the cost of information and mainly give payments in advance to insurance firms to cover the public quota of insurance premium. This is a very important role especially in case provision of public money is delayed by the public administration. Consortia provide an essential service to associated farmers in their relations with insurance agencies. In the absence of such a service, as in Southern regions, there is less incentive for agencies to adhere to public schemes and for farmers to pay higher insurance premiums.

The relevant literature notes that large, specialised farms are the most frequent users of insurance contracts (Cioffi and Capitanio, 2009). These authors outline at least four factors that reduce the diffusion of insurance instruments in Italian agriculture: farm pluriactivity, the strong debt load, the use of compensation for adverse natural events and finally, participation in cooperatives and producer associations. The implication must therefore be that this instrument will be most used in situations where these alternative strategies for reducing farmers' exposure to risk are lacking, and/or where there are pre-existing institutions like the Consorzi for whom the management of risk insurance represents an acceptable addition to their portfolio of services to members.

The current use of insurance contracts supports competitiveness and innovation among the biggest and more specialised farms, especially for those types of production (wine, fruits and rice) where capital investments are more intensive. The effects on sustainability are more controversial: on one hand, they are linked to some of the most capital intensive types of production, on the other, they contribute to the long-term maintenance of physical capital, and also of very typical components of the landscape: i.e. vineyards and fruit in the mountain areas.

2. Adding Value and the Importance of Design and Delivery – Experience from England

Under the current programming period, adding value to agricultural products is addressed by measure 123 of the England RDP. In the previous programming period (2000-2006) it was managed under the Processing and Marketing Grant (PMG) and Rural Enterprise Scheme (RES). These schemes sought applications throughout the programme period which were scored for their likely contribution to key RDP goals, and competitively assessed in order to ensure that funding was given to the highest-scoring applications. Leat and Revell (2005) made an economic evaluation of these schemes, and found that both suffered from displacement effects, whereby lower-order value-added food processing and retailing in the local area/sector was displaced by the higher value-added activities funded by these schemes. They also found a degree of scheme deadweight due to a tendency for the schemes to fund the most 'safe' investment activities that would have likely found favour with private lenders and thus might have gone ahead anyway. This results in a 'selectivity' effect, often meaning that those applicants most in need of public funding (i.e. those involving higher risk, or more novel concepts and processes, or those beneficiaries with limited collateral) lose out to those who could probably fund their projects privately. This pattern has been noted in other cases across the EU.

Box 2: Barriers to maximising outcomes from adding-value schemes in England

There were four broad sources of barriers to maximising additionality from the schemes, as follows.

1. **Eligibility Rules:** A £70,000 (c.€100,000) minimum project value for the PMG proved prohibitive for many small-scale businesses, which preferred a slower and more incremental approach to growth. There was also a dislike of the rule requiring the purchase of new equipment; when much cheaper, but adequate, second-hand equipment was available. Furthermore, beneficiaries were required to obtain three quotations (and sometimes architects plans) for equipment and work. There were also delays in grant decisions due to application timing (sometimes this meant that applicants did not hear anything for months).

2. **Application process:** This was viewed as overly administrative with requirements such as hiring a consultant to assist in preparing the application, and the use of inaccessible (difficult to locate) and complicated application forms for beneficiaries. Beneficiaries' previous experience of applying for government grant schemes was an important pre-determinant of success and it was possible to identify "serial adopters" of such schemes, emphasising and deepening the "selectivity" effect.

3. **Help/guidance:** The need to liaise with a range of different people in the public administration (and thus having to explain themselves anew, each time), rather than having regular contact with the same official, during the fairly lengthy application process, deterred applicants. Written guidance was also viewed as far too complex and the application and implementation processes very costly; with beneficiaries critical that it resulted in them effectively spending scheme money on consultants, rather than using it for their own business.

4. **Other:** A general lack of information about the PMG/RES was expressed especially by those who lacked previous grant application experience and who were running the smallest businesses,

particularly if those businesses were successful. A general lack of time and money to devote to investigating new sources of assistance, together with a perceived high risk of rejection due to the competitive funding assessment process, did not 'fit' with many businesses' slower/more incremental attitude to their own growth and development. The evaluation concluded there was a need for the schemes to be more widely promoted and made more accessible to micro-businesses

The geographically uneven nature of uptake of the PMG/RES in England was noted by Watts *et al* (2009). Thus a spatially implicit scheme (which was potentially available everywhere) has nonetheless a spatially varied impact. Larger farms were more likely than smaller farms to adopt PMG/RES. Problems associated with landlord reluctance led tenant farmers to get involved in smaller diversification projects (through PMG/RES) than owner-occupiers. Watts *et al* (2009) concluded that the areas in most *need* of support – i.e. where the results of investments could have the greatest impact - often had lowest adoption rates; thus there is often minimal impact on rural development as a whole. This raises the issue of whether such policies should be more spatially explicit (targeted on specific territories), in future.

Source: Ilbery *et al* (2010a).

Despite these issues, the Mid-Term Evaluation of Measure 123 in the current RDP reports both high uptake and little evidence of "deadweight". One reason advocated for this relative success is the continuity of policy learning that measure 123 offered, after experience with the PMG/RES. In many regions, the same officials are delivering the new measure and to some extent, lessons from the previous programme have been learned and applied. At the same time, those who learned about PMG and RES in the previous programme but didn't have an opportunity to apply for funding, have brought proposals forward to the new schemes under measure 123. There is an important message here about the value of continuity in policies and measures, to avoid the risk that just as farmers/rural SMEs get used to them, schemes and programmes change completely.

3. Multi-fund Integration within a territorial approach: Italy[11]

The policy instrument used in the 2000-2006 programming period in Italy was the Integrated Territorial Project (ITP), whose main characteristics were:

- a Local Partnership, made up of public and/or private local stakeholders;
- a specific focus on a given territory, including a series of municipalities as main administrative units, whose size is generally small (100-200.000 inhabitants);
- an endogenous development strategy, strongly based on the territory's natural and socio-cultural assets, described in a local integrated plan;
- a combination of different funds, whose interventions are in the field of agriculture and rural development (EAGGF) and also non-agricultural measures (ERDF and ESF).

This analysis concerns an ITP in Metapontino, Italy. The Integrated Territorial Project (ITP) of Metapontino is placed in Basilicata region of southern Italy, and took its name from the Metapontino area. This map represents the Basilicata region and the different areas where ITPs have been designed and implemented. All territories are covered by ITPs and the Metapontino area is placed on the south-east side of the region.

[11] This analysis is based on the following sources:
- A focus group in the Metapontino area with main stakeholders (main partners involved in the Agro-Food Quality District, the Local Action Group named COSVEL, the principal Producers Associations, representatives of the research centres of the area);
- A specific interview with Nicola Castronuovo, the ITP manager, who coordinated the entire project in the implementing phase;
- Various documents and reports on the ITP of Metapontino and on the experience of ITPs in Objective 1 regions in Italy.

Map 1: The area within the Metapontino ITP

This is a typical southern plain area, quite intensively cultivated, where agriculture and tourism play the lion share among the local economic sectors. Metapontino has strong competitive advantages in both sectors: good quality of natural resources, high availability of water resources for irrigation purposes, high land productivity, good climate conditions for growing fruits and vegetables, intensive summer tourism especially on the coastal part of the area, diffused presence of cultural and historical heritage, and archaeological sites (mainly due to ancient Greek colonies, named colonies of Magna Grecia).

Fruits and vegetable productions represent more than one third of the regional Agricultural Added Value. Entrepreneurial resources, technical innovation in agriculture and farm advisory services (public and private) are all quite good and widely diffused in the area. Main specialized activities in agricultural production are oranges, tangerines, apricots, table grapes, strawberries, olive oil. Tourism showed a positive and increasing trend until 2005 (more than 1 million of presences) and since then it began to decrease over time. Tourism flows are mainly concentrated in the coastal area, with very negative impacts on the conservation of natural resources and traditional landscape. Tourism settlements are quite crowded and unevenly distributed, so they have had a very negative environmental impact and in more recent years this contributed to slow down the annual tourism flows of more than 20%.

The agricultural sector has been suffering from its weak position and bargaining power in national and regional markets. Average farm size is quite small: 4,5-5 hectares. Most of producers sell their output to local wholesale traders who impose their prices. Only one third of land is managed by farmers belonging to some Producers Organisation (PO) or Cooperative. There are 9 POs and cooperatives selling to large scale traders mainly concentrated in North of Italy. This means that this high-quality production is marketed outside the area, with no specific local brand and differentiation. A minor share (5%) of local production is exported in Europe (Germany and United Kingdom). The consequence of this relatively weak position on regional and national markets is that the producers are able to keep only a minor share of the value chain in the area.

The two main priorities for the local economy of this region were the re-definition and diversification of tourism supply at local level, enhancing tourism infrastructures and strengthening tourism supply especially in inland and remote rural areas, to reduce congestion on the coast and favour the most disadvantaged areas (hill and mountain). The second priority sought to improve the competitiveness of the agricultural sector by integrating production methods, promoting sustainable cultivation practices and supporting local products, some of which (peaches, oranges, apricots) contribute to local biodiversity and have been in significant decline.

The ITP required a dedicated planning and management system at local level (The content of the Programme Agreement is the basis for the operational phase of the ITP. It contains the financial plan, the division of roles and responsibilities between the LIP and the region and the list of eligible projects for infrastructural investment. Within the LIP a local administration is chosen to take overall responsibility for running the ITP (figure 1), alongside a project manager and a Management Unit (responsible for technical assistance, administration, financial management, ITP design and revision, monitoring) and provides the main technical support to final beneficiaries.

In the specific phase of assessment and selection of applications, the real decision-making power is in the hands of two institutional actors: (i) municipalities, with regard to infrastructural investment; and, (ii) the regional administration, with regard to financial aids to farmers and SMEs. Financial flows do not involve the local partnership, but only the region (for payment approval) and the Paying Agency (for the delivery of the payment) in relation to investment support to farms and SMEs (Figure 1). A Local Institutional Partnership (LIP) was formed, composed of public bodies (municipalities and Mountain Community representatives), which proposed the local plan to the region and, after approval, entered into a contractual agreement (called a Programme Agreement) with the regional administration.

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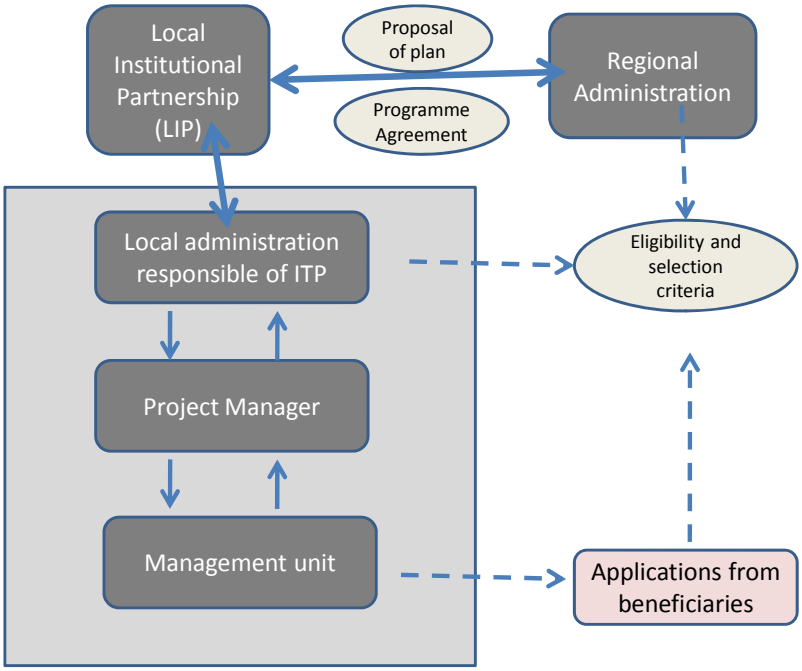
Figure 1: Main actors involved in the design and management of the Integrated Territorial Project Metapontino



Source: Mantino, F (2011).

In the case of infrastructural investment money goes directly to local municipalities, who are responsible not only for applications but also for the selection of the best infrastructural projects for their territory. The most frequent types of projects concern municipal roads, water networks for civil use, cultural and historical heritage (ancient villages and buildings, museums, castles, etc). These public works are fundamental in a context where the maintenance of population in the small villages and municipalities is a key issue after decades of continuous emigration from remote and inland rural areas.

The ITP promoted the widespread renovation and restructuring of rural villages and historical monuments in all municipalities involved in the local partnership. This provided favourable conditions for a viable business environment, both for tourism and for agriculture. It was the first time that local municipalities engaged in the design and development of a common strategy, integrating different funds and policy instruments. The new governance structures also facilitated the creation of enhanced local administrative capability and staff expertise in the management of EU funds.

Importantly, the ITP strengthened the food chain approach in local agriculture, fostered a better and more sustainable use of agricultural inputs and the maintenance of cultivars which are key for biodiversity conservation. The surrounding network of public and private research and advisory institutions (ALSIA - Agenzia Lucana di Sviuppo e Innovazione; the local offices of the National Research Council in Policoro; the National Experimental Institute for Citrus fruits; the local research offices of the National Institute for Alternative Energy in Rotondella, and others) focused predominantly on enhancing the competitiveness of the region, but also supported the strategy for enhancing sustainability and biodiversity

conservation. The close relationship of these institutions to social and economic activities locally helped with the identification of local needs and the communication of new technologic developments. Although this network is independent of the ITP, it is a relevant contextual factor which helps explain the positive impact of the ITP on the farming sector.

Some issues arose in relation to the governance of the ITP, linked to policy design and coherence. Only public bodies were able to be part of the partnership, under a rule set by the regional administration to exclude potential conflict of interest in designing eligibility and selection criteria. However the lack of private stakeholders in the ITP design and day-to-day decision making process was perceived as a weakness for the ITP strategy. Other issues included a lack of cooperation and integration between the Metapontino ITP and the other programmes implemented in the same period in the area, for example the Leader Local Action Plan and the Agri-Food Quality District of Metapontino, a district promoted by the region through a special regional law, without any substantial role in governing agricultural policies in the area.

This case examines an integrated governance and funding structure which jointly pursued agricultural competitiveness and territorial competitiveness. The concept is not new but the institutional arrangements were novel at the time, and they remain relatively rare within the sphere of rural and regional development approaches. Lessons from this experience are highly relevant to the proposed new CAP Pillar 2 framework, discussed in the next chapter.

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