Co-Design of innovative contract models for agri-environment and climate measures and the valorisation of environmental public goods

Integrated evaluation report of innovative/interesting contracts

Deliverable 3.2

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The Contracts2.0 project aims to develop improved novel contract-based approaches to incentivise farmers for the increased provision of environmental public goods alongside private goods. These innovative contract-based approaches aim at being environmentally more effective, economically viable for farmers and supporting the longevity of contractual arrangements. This is done by involving farmers and other market actors as well as policy makers, mainly by analysing and (re-)designing existing and novel contractual arrangements for the provision of agri-environmental-climate public goods. The main objective of this Deliverable (D3.2) is to **synthesise evaluations of existing innovative contract approaches from practitioners' perspectives** (focussing on result-based, collective, land tenure and value chain approaches) taking into account their respective context factors, and thereby identifying specific aspects of contracts for further investigation in WP2 and WP5.

The **main source of information** for this report is a number of workshop(s) organised in 12 Contract Innovation Labs (CILs), which were established by the Contracts2.0 project and carried out in nine participating countries: Belgium (Flanders), Denmark (Bornholm), France (Hautes Pyrénées), Germany (North Rhine-Westphalia), Italy (Tuscany), Hungary (Őrség), The Netherlands (Limburg and Oost-Groningen), Spain (Madrid) and the UK (England). Overall, 20 SWOT analyses of existing innovative agri-environmental contracts were completed in CIL workshops, including eight collective-based, seven result-based, five value-chain and two land tenure contract approaches. It is important to highlight that most of the SWOTs discuss contracts which are a mixture of some of the four approaches (e.g. mixed value chain, result-based and collective approach in Italy; mixed land tenure and collective approach in Madrid). The SWOT workshops took place between January 2020 and March 2020, and a total of 235 people were involved. For this, structured but flexible guidelines were provided to each CIL. Main outcomes of the workshops, reported in a common template, were combined with a qualitative thematic analysis method.

A total of 16 **recurring themes and subthemes were identified**, which were not imposed categories during the workshops but appeared along the different SWOT reports. These themes and their subthemes are: agro-management and economic viability (administrative burden for farmers, checks/control and monitoring, economic viability, agricultural knowledge and innovation systems, legal certainty for farmers), social impacts (individual impacts for the farmer, internal cooperation, trust, communication among farmers, cooperation, trust and communication between contract-parties, trust and communication between farmers and the wider society, social impacts on other sectors), environmental impacts, and legal policy and political context (administrative and financial burden above farm level, political and administrative support, combination of contract approaches, and participation in governance).

Due to the Covid pandemic not all planned workshops have taken place as is the case for AgoraNatura, whose SWOT was therefore not validated by practitioners. A limitation of the method when analysing the data is that the information from the SWOTs is sometimes focused on specific (local) situations while others were very general. To overcome this challenge, we decided to focus on more general remarks underlying the specific ones. Furthermore, strongly differing themes came up in the SWOTs of the value chain approaches from buyers/companies perspective, in which no farmers were involved, these SWOTs are therefore discussed separately and follow a different categorisation. The results are

included in this report, but comparison with the SWOTs from farmers/NGOs/administrators perspective is not very suitable.

Result-based contracts approaches were perceived as flexible in payments towards farmers, being able to customize the measures with farmer's management; but to do it effectively it is important to define long-term contract duration in order to be able to affect the landscape dynamics and impact the biodiversity and ecosystem services state. The limited duration of the contracts could strongly affect all the contract types analysed in Contracts 2.0. At the same time, result-based contracts could represent a financial risk for farmers. From the administrative and political perspective, result-based contracts have a suitable fit with new the Common Agricultural Poilcy (CAP); however, this approach was perceived to have an increased administrative burden on government level.

Collective approaches were perceived to need trust and collaboration among farmers, as well as farmer motivation to uptake agri-environment-climate measures (AECM). At the same time, collective contract types were perceived to motivate, empower and increase engagement of the farming sector to conduct environmental and sustainable practices. These kinds of measures were related with the obtaining of successful agri-environmental outcomes as those embrace large areas. Collective approaches were perceived to reduce the administrative burden on government level, but increased among farmers' management.

Land tenure under collective approaches (territorial contracts and land stewardship agreements) were strongly related with the possibility to improve environmental quality and to enhance and develop rural areas economically; however, they were perceived to require an important administrative burden for individual farmers.

Value chain approaches could have a relevant contribution in terms of agri-environmental outcomes and in the economic development of the areas in which they are applied, from the point of view of practitioners. From the companies and buyers' perspective this contract is cost-efficient and could be customised with farmer's management. This contract approach was also strongly related with perceived improvement of environmental quality.

Overall we found a **high interest** in these new contract approaches among farmers and stakeholders, indicating that there is a potential role for them in the future provision of environmental public goods from farming. A general challenge for agri-environmental contract development from practitioners' perspective is their **time frame**: On the one hand the importance of long term visions (+/- 10 years) and continuation taking into account landscape dynamics are stressed. On the other hand social dynamics (e.g. turnover of transhumance, political changes etc.) make such long term visions and continuation very difficult. Another general outcome of the SWOT analysis which can be used when developing innovative contracts is the suggestion to **combine contract approaches**: i) result-based approaches can be combined with collective approaches, ii) collective and value chain approaches can be combined, and iii) result-based contract approaches can be combined with action-based payments. On the other hand, contract development becomes increasingly complex when combining different contract approaches. More specific **recommendations per contract approach**, based on the outcomes of the contract SWOTS, are described in chapter 5.

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ABBREVIATIONS

AEC	Agri-environmental contracts
AECM	Agri-environment-climate measures
BE	Belgium
CAP	Common Agricultural Policy
CIL	Contract Innovation Lab
DE	Germany
DK	Denmark
ELMS	Environmental Land Management Scheme
ES	Spain
FR	France
HU	Hungary
IT	Italy
N/A	Not applicable
NGO	Non-governmental organisation
NL	Netherlands
PIL	Policy Innovation Lab
SWOT	Strengths, Weaknesses, Opportunities and Threats
UK	United Kingdom
WP	Work Package

1. INTRODUCTION

Currently a wide range of **agri-environmental contracts** are in use in European countries, either as part of the Common Agricultural Policy of the EU or as part of national, regional or local agri-environmental policy. Among these are publicly funded agri-environment-climate measures, privately funded Payments for Ecosystem Services (PES) and collective arrangements between concerned actors. In addition to providing private goods such as food, fibre and biomass, agriculture can deliver a variety of environmental public goods, such as biodiversity conservation, water filtering, carbon sequestration and landscapes for recreational use (Prager et al. 2020). Nevertheless, the provision of environmental public goods is not optimal (Brown et al. 2019; Pe'er et al. 2014, 2019). Novel contract-based approaches could provide incentives for farmers to produce more environmental public goods, as well as allow for reconciling the economic viability of their farms with sustainable environmental objectives.

The Contracts2.0 project aims to improve the environmental impact of agri-environmental contracts, involving practitioners (e.g. farmers and other market actors) in Contract Innovation Labs (CILs), as well as policy makers in Policy Innovation Labs (PILs), by analysing and (re-)designing existing and novel contractual arrangements for the provision of agri-environmental-climate public goods. This work package (WP3) focuses on practitioners' perspectives and organizes Contract Innovation Labs in order to **develop and (re)design innovative agri-environmental contracts at the local level**. Interaction, collaboration and feedback between CILs and PILs aims at improving existing or developing new contracts, assessing the current policy framework and developing supporting policy framework conditions in order to upscale the contracts developed by the CILs.

The main objective of this research activity is to analyse strengths, weaknesses, opportunities and threats of innovative contract approaches around Europe from practitioners' perspective, focussing on result-based, collective, land tenure and value chain approaches, considering their context factors. Therefore, this report summarizes the **SWOT-evaluations of interesting and innovative agri-environmental contracts from practitioners perspective** in 12 Contract Innovation Labs (or CILs) in nine European countries (Table 2). The major findings of these SWOT analysis exercises are synthesised in this report. In chapter 3 the findings are organised per theme so that results are discussed and compared across the different contract approaches; in chapter 4 the findings are organised per contract approach. The reader can therefore choose which chapter is more relevant to them, and skip the other. Some of these findings will be further investigated in WP2 and WP5.

2. METHODOLOGICAL APPROACH

2.1 Contract Innovation Labs – CILs

Since Contracts2.0 is a project applying a **multi-actor approach**, interaction with multiple stakeholders is a central strategy of the project. Therefore, 12 Contract Innovation Labs (or CILs) and nine Policy Innovation Labs (or PILs) in nine European countries have been set up to be a space of dialogue and action, to stimulate social learning and creativity around agri-environmental contracts (AEC). Each CIL and PIL is led by a coordinator organisation (a research or action partner in the Contracts2.0 project).

To this end, guidelines for setting up CILS and selecting relevant practitioners were provided to all the CIL leads. While the general rule for inviting CIL members was to invite **practitioners from agri-environmental sectors** with an interest in the development of innovative agri-environmental contracts, the exact composition of the CILs varies from CIL to CIL, depending on the local context and the type of contract being envisioned. The diversity of participants across the CILs enabled to bring a wide range of perspectives together during the workshops.

2.2. Used method: SWOT analysis

The focus was on assessing innovative agri-environmental contracts (or clusters of innovative contracts per contract approach) and innovative AECM identified by the CIL participants. A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis was chosen as it is a useful tool for **bottom-up evaluation**. In this way, one SWOT analysis was completed in at least one participatory workshop in each CIL, later one participatory workshop in each PIL took place to discuss the SWOT. This report builds on the first round of CIL workshops. The advantage of doing a SWOT analysis is that the questions are very open, so that there are no predetermined criteria for evaluation. The disadvantage of this open-endedness could be that some relevant issues are forgotten or deemed not relevant by participants. For each quadrant of the SWOT, the CIL leads considered – where relevant – different aspects related to contracts: political, economic, ecologic, socio-cultural and technological aspects (see Table 1). Guidelines and a reporting-back template for the SWOT analysis were developed and shared with all CILs.

Table 1: Template for SWOT analysis of innovative contracts.

Strengths *What is the innovative contract good at?* *What unique resources can the contract draw on?* *What do outsiders see as its strengths?*	**Weaknesses** *What could be improved in the contract?* *Where does the contract have fewer resources than others?* *What are outsiders likely to see as its weaknesses?*
Political: Economic: Ecologic: Socio-cultural: Technological:	Political: Economic: Ecologic: Socio-cultural: Technological:
Opportunities *What opportunities are open to you?* *What trends could you take advantage of?* *How can you turn your strengths into opportunities?*	**Threats** *What threats could harm your contract?* *What is your competition doing?* *What treats do your weaknesses expose you to?*
Political: Economic: Ecologic: Socio-cultural: Technological:	Political: Economic: Ecologic: Socio-cultural: Technological:

Based on the SWOT analysis, generally four types of strategies can be taken to (re-)design innovative agri-environmental contracts: use strengths to take advantage of opportunities (strength – opportunity), use strengths to reduce threats (strength – hreat), reduce weakness by using opportunities (weakness – opportunity) and reduce weaknesses by preventing threats (weakness – threat) (Sanito et al., 2020). For this report, based on the 20 completed SWOTs of existing innovative agri-environmental contracts around Europe (for more details see Table 2), a thematic analysis was conducted (see 2.5. Data analysis). Based on this thematic analysis and thematic comparisons between contract approaches, several specific strategies can be proposed.

2.3 Data collection: participatory workshops

As part of the preparatory work and as already mentioned, the WP3 coordination team provided a flexible workshop guideline and a unified reporting template for CIL coordinators (see Milestone 14/3.2). In total ten face-to-face participatory workshops were conducted (see Table 2). In these participatory workshops facilitated open dialogue with practitioners served as the main approach to collect data and knowledge. Participatory workshops are a deliberative method, commonly used within the ecosystem service sociocultural assessment to acquire information from the knowledge, perceptions, positions and discourses of selected stakeholders (Santos-Martin et al. 2017; Harrison et al. 2018). In addition, workshops are a suitable method to **incentivise participation, social learning, sharing and co-creating knowledge** among the group, which is one of the aims of CILs (Bergvall-Kareborn and Stahlbrost 2009; Ståhlbröst 2012; García-Llorente et al. 2019). Social learning has been

recognised as a key feature for implementing ecosystem services research because it enhances understanding and promotes the creation of trustworthy relationships among stakeholders with different perspectives, interests and needs (García-Nieto et al. 2019).

There are three cases were the data was collected in an alternative way: In the case of AgoraNatura, the CIL meeting was postponed due to Covid-19, so their current SWOTs were collected in an alternative way (reviewing several reports, the AgoraNatura project website, one internal meeting and interviews with the research partner ZALF). In the case of the two CILS set up in the UK (Countryside stewardship and RBAPS pilot Yorkshire), the information was collected in a participatory way through interviews carried out prior to Contracts 2.0 (on-going interaction with CSFF facilitators, observation at farmer meetings, reading blogs and news reports in the farming media).

Table 2: List of the held workshops of the Contract Innovation Labs, for carrying out the SWOT, including the meeting date, location, the number of participants and the number of SWOT analyses done. N/A: not applicable.

Country	CIL	Meeting Date	Location (city)	Nº of participants	Nº of SWOT analyses
NL	Oost Groningen	4th December 2019	Westerlee	11	1
NL	Limburg	9th December 2019	Heibloem	12	1
BE	Flanders	3th December 2019	Leuven	40	2
FR	Hautes-Pyrénées	12th of January 2019	Tarbes	27	2
ES	Madrid	15th January 2020	Madrid (CSIC)	16	3
DE	NRW	4th December 2020	Muenster	30	1
DE	Hipp	20th February 2020	Pfaffenhofen/Ilm	15	2
DK	Bornholm	21st November 2019	Bornholm	15	2
HU	Őrségi National Park	21st November 2019	Őriszentpéter	12	1
IT	Unione Comuni Garfagnana	18th July 2019	Camporgiano	28	2
DE	AgoraNatura	N/A	Berlin	9+20	3
UK	Countryside Stewardship	N/A	N/A	N/A	1
UK	RBAPS pilot Yorkshire	N/A	N/A	N/A	1

Figure 1: Examples of participatory workshops performed with CIL members (first row: CIL Madrid (ES), second row: CIL Bornholm (DK), third row: CIL Őrségi National Park (HU)).

2.4 Data collection: target stakeholders

The general rule for inviting CIL members was to invite **practitioners from agri-environmental sectors** with an interest in the development of novel contract models for innovative AECM, with a key emphasis on farmers, farmers' organisations, farmers' representatives and landowners as they are the target of the implementation of AECM. In addition, extension service providers, rural development entities, agroecological agents, local development groups, environmental and rural NGOs, researchers, as well as other interested stakeholders related with the agrifood sector such as food processors were considered (Table 3). However, the exact composition of the CILs varies from CIL to CIL, depending on the local context and the type of contracts being envisioned. The diversity of participants across the CILs enabled to bring a wide range of perspectives together during the workshops.

Overall, 235 people participated in the SWOT analysis; 15/20 people participated in each workshop; ranging from workshops with 11 to 30 participants (Table 3). Some participants represented several sectors and were counted in all mentioned categories; therefore, the total number of participants is not always the sum of the categories (e.g. France).

Table 3: Categorisation of participants who toke part in the SWOT analysis.

		Type and number of participants								
Country	**CIL**	Total	Farmers	Managers / authorities	Conservation associations / Environmental NGOs	Rural development entities,	Companies / consumers	Others / not defined	Facilitators or team members	Researchers
NL	Oost-Groningen	11	5	–	–	–	–	4	–	2
NL	Limburg	12	2	–	–	–	–	8	–	2
BE	Flanders	40	10	6	1	–	1	18	–	4
FR	Hautes-Pyrénées	27	13	2	5	5	–	–	5	5
ES	Madrid	16	3	–	3	3	–	4	3	3
DE	NRW	30	8	6	4	6	–	4	6	2
DE	Hipp	15	1	–	-	1	6	–	6	7
DK	Bornholm	15	9	5	1	–	–	–	–	–
HU	Őrségi National Park	12	6	2	2	–	–	–	3	2
IT	Unione Comuni Garfagnana	28	–	–	–	–	–	28	–	–
DE	AgoraNatura: Donation Contract	20	–	3	2	–	8	4	5	3
DE	AgoraNatura: Service Contract	9	–	–	–	–	–	–	1	9
	Total	235	57	24	18	15	15	70	29	39

Following the "Guidelines for setting up and managing Contract and Policy Innovation Labs" (milestone 13/3.1.) CILs composition should look for a **gender balance**; however, and though participants' gender has not been registered for this report, masculine participants seem to be overrepresented in the first CIL meeting. Women make up between 5% and 45% of farmers in Europe in 2020 (Eurostat 2020), with an average of about 30% of the European farmers being female. Female farmers might need to be more actively recruited in the following CIL meetings.

2.5. Data analysis: qualitative thematic analysis

Reporting templates were filled in by the CIL coordinators based on the discussions in the CIL workshops (or in the case of the UK and AgoraNatura, based on several interviews). The SWOTs were carefully read by the WP3 team and when necessary further clarified with the authors. To analyse the data, a qualitative thematic analysis approach was used. **Qualitative thematic analysis** requires an active involvement of the researcher to interpret the data, going beyond reductionist methods of coding and counting keywords or phrases (Chapman 2015; Guest, MacQueen & Namey, 2012). The contents of the 22 SWOT analyses were organised according to the identified recurring themes. These recurring themes were not imposed categories during the SWOT discussions, but are the emerging themes that summarize the apparent and underlying meaning of the data in the different SWOTs (Saldaña, 2012).

Overall, **four main themes (subdivided into 16 subthemes) were identified**: (1) agro-management and economic viability, which was split into six subthemes (e.g. administrative burden, monitoring, farm practices etc.); (2) social impacts, involving individual impacts for farmers, cooperation, communication between contract parties, etc.; 3) environmental impacts in relation with the impact on agrarian landscapes, biodiversity and/or ecosystem services; and (4) legal, policy and political context, which include administrative support, governance models etc. (Table 4). After identifying the recurring themes, each SWOT codified by the WP3 team was shared by the WP3 mentor with CIL coordinators to validate the themes used. Once the re-organised SWOTs were agreed upon with the CIL coordinators, the contract SWOTs could be compared horizontally per theme as well as vertically per contract type, without losing their respective contextual background.

Table 4: Identified recurring themes and subthemes in the contract SWOTs.

Main theme	Subtheme	Description
1. Agro-management and economic viability	1.1 Administrative burden for farmers	Perception of excessive paperwork for contracting and follow-up
	1.2 Checks/control and monitoring	Indicator monitoring, checks and controls
	1.3 Economic viability	Income gain/loss, farm diversification, economic flexibility
	1.4 Farm management	Incl. technical and technological issues, changes in farm management, compatibility with existing farm practices, importance of financial imperatives
	1.5 Agricultural Knowledge and Innovation Systems (AKIS)	Training, knowledge exchange, learning and innovation in agriculture, intervision, extension service advise and support
	1.6 Legal certainty for farmers	Legal certainty or legal security for farmers concerning AEC, access to land, etc.
2. Social impacts	2.1 Individual impacts for the farmer	Intrinsic motivation, ownership, depression, autonomy, etc.
	2.2 Internal cooperation, trust, communication among farmers	Friendships, closer collaboration with neighbours, cooperation in practices conducted across the landscape level (instead of farm level).
	2.3 Cooperation, trust, communication between contract-parties	Arrangements between farmers and policy makers/NGO/company
	2.4 Trust, communication between farmers and the wider society	Reputation of farmers/farming, recognition of their positive contribution to landscape/society, regional identity, multifunctional landscapes
	2.5. Social impacts on other sectors	Development of the tourism sector, education, health, multifunctionality, economic activity
3. Environmental impacts	3.1 Environmental effects/impacts	Impact at the agrarian landscape, biodiversity and/or ecosystem services
4. Legal, policy and political context	4.1 Administrative and financial burden above farm level	Workload, time consuming and cost
	4.2 Political and administrative support	Continuing CAP, political viability, political coherence, good fit on different policy levels
	4.3 Combination between contract types	Pros, cons and suggestion of contract types combinations
	4.4 Participation in governance	Promoting a multilevel institutional structure

A strong disparity between the recurring themes in the SWOT analyses from farmers, NGO's and administrators' perspective (17) and the SWOT analyses from companies/buyers' perspectives (5) was identified, therefore it was decided to synthesize the SWOTS of the value chain approaches from companies/buyers' perspectives separately from those of the SWOT analyses of all the other contracts from farmers, NGO's and administrators' perspectives.

2.6 Methodological limitations

Due to the Covid pandemic not all planned workshops toke place. In the case of AgoraNatura this led to their SWOT not being validated by **practitioners** by the time of writing. Besides AgoraNatura and both CILs of the UK, all SWOTs were done by practitioners, but in the case of Hipp and AgoraNatura the practitioners did not include any farmers. The SWOTs of AgoraNatura and Hipp, both focussing on value chain approaches, are therefore discussed separately from the other SWOTs and categorised according to Michael Porter's framework (1985), which fits their outcomes better.

Furthermore, most of the SWOTs discuss contracts that are a **mixture** of some of the four approaches (i.e. result-based, collective, value chain and land tenure approaches). For example, in Italy the value chain approaches are mixed with result-based and collective elements, in the UK and the Netherlands collectives are combined with land tenure and/or result-based approaches. We made an effort to separate the different approaches, but this separation could not always be maintained (e.g. in the cases of Madrid (ES) where land tenure approaches are mixed with collective approaches, and in the case of Italy where result-based and value chain approaches are combined).

A further challenge when synthesising collective approaches was that they contain many different forms and constellations of '**collectives**', ranging from farmer collectives with or without facilitation, with or without subsidies to collectives 'buyers' in value chain approaches. Moreover, collective approaches were almost always implicitly **compared** to individual approaches, and similarly result-based approaches were implicitly compared to action-based approaches.

Another methodological concern when synthesising SWOTs was that some items in the SWOTs focused on **specific (local) situations**, while others were very general. To overcome this, we chose to focus on the more general items underlying the specific items, from which lessons could be learned on the level of the contract approach more broadly.

3. INTEGRATED EVALUATION OF EXISTING INNOVATIVE CONTRACT MODELS

-> from farmer/NGO/administrator's perspective

3.1 Overview of CILs and innovative contract models analysed

In Table 5 an overview of the evaluated innovative contracts is given with their related contract typology. Overall, 22 innovative contracts (or clusters) were assessed, including eight collective-based, seven result-based, five value-chain and two land tenure contract approaches. Two contracts by AgoraNatura (Service contract and Contract for work and service) are under development and not in use at the time of writing, therefore the SWOTs of these contracts are not included in the analysis of this report. In Table 5 it can clearly be seen that mixed contract approaches are very common, with sometimes the combination of elements of all four contract approaches in one contract (e.g. Netherlands).

Table 5: Contracts which were analysed via a SWOT analysis, detailing the relation of the contract with the 4 contract approaches. Relation with the contract is weak (x), medium (xx), or strong (xxx)

COUNTRY, CIL	Innovative contract	Relation with contract approach (weak (x), medium (x), strong (xxx))			
		Result-based	Collective	Land tenure	Value chain
Netherlands, Limburg	Collective contracts ANLb (Agricultural Nature and Landscape conservation) with Natuurrijk Limburg	x	xxx	x	xx
Netherlands, Oost Groningen	Collective contracts by ANOG for ANLb (Agricultural Nature and Landscape conservation)	x	xxx	x	xx
Belgium	Cluster of contracts following the result-based approach	xxx			
Belgium	Cluster of contracts following the collective approach		xxx		
France	Collective AECM to maintain current practices (SHP 02)	x	xxx	x	
France	Collective AECM to change practices (localised AECM: herbe 09 / Ouvert 01-03)	x	xxx	x	
Spain	Territorial contracts		xx	xxx	
Spain	Land Stewardship		xx	xxx	
Spain	Cluster of contracts following the result-based approach	xxx			
Germany, NRW	Existing AECM				
Germany, Hipp	Global player				xxx
Germany, Hipp	Regional supporter/actor				xxx
Denmark	Cluster of contracts following the result-based approach	xxx			
Denmark	Cluster of contracts following the collective approach		xxx		
Hungary	National Park Products	x			xxx
Italy	Agreements between custodian growers and Tuscan Regional Lands (Ente Gerione Toscane)	xxx			xx
Italy	Commitment to maintain endangered breeds carried out on the 2014/2020 Rural Development Plan submeasure 10.1.4	xxx			xx
Germany, AgoraNatura	Donation contract				xxx
Germany, AgoraNatura	Service contract				xxx
Germany, AgoraNatura	Contract for work and service	xxx			
UK	Pilot in Yorkshire Dales	xxx			
UK	Countryside Stewardship FF		xxx		

In the next section, a general synthesis of the SWOT analyses of 20 innovative contracts is provided according to the identified recurring themes. To provide the contextual background of the findings, the country code of the CIL in which a finding was obtained is mentioned (UK for United Kingdom; NL for the Netherlands; BE for Belgium; DE for Germany; ES for Spain; IT for Italy; DK for Denmark; FR for France; and HU for Hungary). To read more about the context factors, we refer you to the fact sheets on each CIL on the project website (see www.project-contracts20.eu). Important to note is that the findings by practitioners during the SWOTs are often based on implicitly comparing innovative contracts with what they already know (e.g. when the collective approach is analysed, it is done by comparing it to individual approaches, when the result-based approach is analysed, it is done in by comparing it to action-based approaches).

3.2 Agro-management and economic viability

3.2.1 Administrative burden for farmers

Collective, result-based and land-tenure approaches were perceived to bring **less administrative burden** to individual farmers. In value-chain approaches the perception was mixed, and in the Hungarian and Italian cases a lack of administrative flexibility was mentioned. In collective approaches, the collectives were perceived to have a lot of administrative burden in order to get funding from the government (NL, UK).

3.2.2 Checks/control and monitoring

'Controls' often had a negative connotation, related to risk for (unfair) sanctions (DE) and extra **administrative burden** for the collectives (NL, UK). In contrast, monitoring linked to results, was described as having a motivational potential to give farmers a sense of achievement. Collectives were mentioned to have real interest in monitoring of the results (NL), making them to be perceived as ideal partners for result-based approaches. Result-based approaches were described to be expected to decrease the needs for fines and controls.

The costs of monitoring were perceived to be high, but funding for this was often described as lacking (UK, NL). **Involving farmers in monitoring** and new technologies could reduce these costs. The UK result-based payments pilot has good experiences with involving farmers for self-assessment. Finding robust indicators can be very challenging though.

3.2.3 Economic viability

Collective and result-based approaches are perceived to be more **cost-efficient** (perceived to be due to less transaction costs compared to individual or action-based approaches) and allow for more **flexibility in payments** towards farmers. Collectives also create economies of scale (e.g. collectively buying seeds). However, insufficient funding for the (extra) costs carried out by the collectives, could make their economic viability uncertain (UK, BE, NL).

Result-based payments were perceived to fairly reward farmer's efforts, both by farmers as by funding bodies (hope for more effective use of CAP funding). They were expected to create extra **incentives** for farmers to deliver higher environmental performance. However, when payments would not to be assured, (i.e. no sufficient basic payment is provided), participation levels might be affected due to risk-aversion in farmers.

The limited duration of the contracts was an important issue and was perceived to be related to a lack of long-term vision. **Continuity of contracts** might be increased by combining public with private funding (e.g. in a value chain). Land tenure approaches might be interesting for farmers, but when not complemented with payments, incentives to create higher environmental practices are described to be missing (ES).

3.2.4 Farm management

Increased flexibility in collective and result-based approaches was perceived to lead to a better **customisation with farmers' management**, as better use would be made of farmers' knowledge and it could be adapted to different circumstances. However, in collective approaches flexibility might be constrained by having to fit with agri-environmental priorities or limitations (UK) and by inflexible rules of the funding agencies (FR). In case of self-assessment with result-based payments, the timing of monitoring might interfere with the timing of agricultural practices, therefore it is perceived to be important to develop the design of the scheme in participation with farmers. In result-based payments there is a risk that lack of knowledge might lead to environmental damaging practices.

3.2.5 Agricultural Knowledge and Innovation Systems (AKIS)

In collective and result-based approaches it was perceived that better use is made of **farmers' knowledge and expertise** and that they are stimulated to learn more about environmental friendly farming. This was perceived to create higher awareness and engagement of farmers. Collective approaches create extra opportunities as farmers can learn from each other. It was mentioned that group advice of farmers should ideally be complemented with individual advice (UK). Training of farmers was described as being vital to their success, especially for result-based approaches.

Facilitators play an important role in knowledge exchange, by bringing together farmers, providing specific training, organizing study groups, exchanges, newsletters etc. To to increase the quality of facilitation, training and knowledge exchange between facilitators is recommended (UK).

3.2.6 Legal certainty for farmers

The **limited duration** of the contracts in general was described as being an important issue thought to be related to a lack of long term policy vision.

3.3 Social impacts

3.3.1 Individual impacts for the farmer

Result-based, collective and land tenure contracts are perceived as approaches that increase levels of **motivation**, **engagement and empowerment** of individual farmers (UK, NL, ES). In the evaluation of collective contract approaches, working together in a collective was perceived to stimulate individual motivation and positive attitudes (NL, UK), to increase farmers' confidence (NL), to decrease worries (NL) and to help tackle isolation and in some cases even depression (UK). Communication (e.g. annual newsletter) aimed at farmers was perceived to help farmers' engagement grow (UK). However, in the collective approach in the Netherlands, remuneration for less production was described as being demotivating for individual farmers, who would prefer to be rewarded for environmental efforts instead (NL). In contrast, when progress is not monitored (in collectives), farmers can lack a sense of achievement which might be demotivating (UK).

When the norm/goal becomes harder to reach (in collectives), support of the agri-environmental measures by the farmers was perceived to decrease (NL). In the evaluation of the result-based contract in the UK the possibility of waning motivation of farmers was also voiced (UK). In both result-based and land tenure contract approaches in the UK and Spain **incentives** for farmers to join schemes are currently perceived to be low: the evenly spread payments across tiers in the result-based contract approach in the UK do not incentivice farmers to join the scheme (UK), and in Spain few social incentives to join land-tenure approaches exist (ES). On the other hand, ownership of the measures was perceived to improve (NL, UK) or were expected to improve (BE) with collective approaches.

Result-based approaches in the UK were perceived as fairly rewarding knowledge, skills and effort (UK). In collective approaches perception of fairness concerning controls came up as a worry (also see: 3.2.2 Checks/control and monitoring).

3.3.2 Internal cooperation, trust, communication among farmers

Result-based, collective and land tenure approaches are perceived as having a positive effect on **collaboration between farmers** (IT, UK, NL, ES). In the Netherlands, both trust between farmers and trust between farmers and the collectives were perceived to have increased (NL). In value chain approaches trust between farmers is perceived to increase, which motivates them to start private initiatives (e.g. local fair etc.) (HU).

Collectives are perceived to increase **motivation and engagement** of farmers in several ways: neighbouring farmers working together on AECMs leads to more ownership of the measures (NL, FR), farmers perceive being more powerful partners as a collective (NL), and farmers reported to have widened their social networks through the collectives. These networks of farmers could improve cooperation between farmers (BE) or could be used to develop project ideas and access funding and expertise (UK).

However, there are also some factors that can inhibit cooperation. In Belgium the fear was voiced that a **culture of cooperation** among farmers might be lacking, preventing the successful setting up of collectives (BE). Limited budgets can lead to the exclusion of some farmers and has caused friction between neighbouring farmers in the Netherlands (NL). In France, money (non-)redistribution has been perceived to generate conflicts between farmers (FR). A fear in Denmark is that one farmer could block the collective projects (DK). A similar fear for **possible abuse** of the result-based approach was voiced in Belgium as well (BE).

A need for **good internal governance** of collectives was voiced in France (FR). A facilitator is needed to provide guidance, structure, coordination and mediation (UK, NL). Groups have been said to lose momentum or even disband after funding for the facilitator was stopped (UK). High facilitator turnover (UK) is a threat to continuous operation of collectives. Paying facilitators for writing applications for additional funding could help continuation (UK). On the other hand, a risk could be that farmers could come to rely on the facilitator to organise meetings and determine topics (UK), and facilitators may impose top-down methods onto groups in pursuit of their own (or their organisation's) objectives (UK). Building cohesive groups (collectives) from scratch takes time (UK), and larger and/or heterogeneous groups make it more difficult to agree on shared objectives and ways to achieve them (UK). Funding incentives for larger groups (e.g. by per head payment) may put group cohesion at risk, reduce

attendance, and reduce likelihood of behavioural change (UK). The risks associated with larger groups could be addressed by forming sub-groups to encourage group cohesion and engagement (UK).

A voiced opportunity for collectives (NL), land tenure approaches (ES) and value chain approaches (HU) was to **communicate** more united and/or or show the achieved successes more widely.

3.3.3 Cooperation, trust, communication between contract-parties

In one result-based contract approach, an increase in **trust** between farmers and advisers, and **collaboration** between farmers and a farm conservation team was reported (UK). Contrarily, in collective approaches in the Netherlands some farmers experience too many **checks for monitoring**, and stated that they did not receive enough trust and flexibility from their government (NL).

A high level of **communication and cooperation** between collectives and policy-makers was perceived as a strength of the collective approaches (NL, FR), but a wider and more efficient involvement of (potential) stakeholders is still needed (NL). Land tenure approaches and result-based approaches represent opportunities for new forms of communication with administrations, to replace the unilateral checking of farmers (ES, UK, BE). A shortage of time/budget to communicate the collective's successes is perceived (NL). Inspiration could be taken from Madrid where the **multi-actor approach** (involving territorial networks, the Custody Forum, the technical and interdisciplinary staff), and the implementation of a participatory model were perceived as strengths of the evaluated land tenure contract approaches (ES). Nonetheless, in the Netherlands farmers perceive being a more powerful contract party united as a collective.

An overall challenge for agri-environmental contracts is their **time frame**: current contracts are too short in regards to landscape dynamics (would preferably be 10 years), but 10 years would be too long in regards to social dynamics (e.g. turnover of transhumance, political changes etc.) (FR, UK).

3.3.4 Trust and communication between farmers and the wider society

Currently AECMs receive positive feedback by citizens mainly for their visible environmental characteristics. Consequently, there is a risk that farmers favour “nice to look at” measures (e.g. flower strips) over more effective measures (DE). A great concern amongst collectives was their lack of funding/time for **community outreach activities or promotion activities**, which causes their lack in visibility (UK, NL, FR). A high level of communication and cooperation between the collective and the policy-makers was described as strengths of the collective approaches (NL, FR), although wider and more efficient involvement of (potential) stakeholders was perceived to be needed (NL).

Again, inspiration could be taken from the **multi-actor approach** of the evaluated mixed land tenure and collective contract approach in the Spanish case, as they have worked integratively with different stakeholders (e.g. urban, agricultural sector, civil society etc.). They saw an opportunity in further involving environmental NGOs and private companies who could finance these NGOs (ES), but this requires a slow process to overcome the mistrust and/or unawareness of the agricultural sector regarding conservation organisations. Similarly, in France, concerns were raised about an (increasing) opposition between “environment logic” and “production logic” (FR), and in Belgium a hope for result-based approaches was to increase cooperation between the nature sector and the agricultural sector (BE). In Italy there is a hope for consolidating networks of collaboration between custodian farmers and other local stakeholders through result-based approaches (IT). Similarly, in the UK and in Italy it

was hoped that through result-based approaches it will become more apparent to the wider society that the agricultural sector is delivering value for money (UK, IT). In Spain, land tenure approaches could promote land stewardship initiatives in the management of natural areas, and custodial institutions could be present where the administration does not have conservation powers.

3.3.5 Social impacts on other sectors

All contract approaches, when producing successful agri-environmental outcomes, were perceived to enhance the environmental quality of the local territory, creating the possibility to develop the area economically and create **new job-opportunities** e.g. in tourism, retail or retail logistics (IT, ES, FR). In value chain approaches links between farmers and other sectors could be made, such as dedicated markets or special shops, local restaurants, and organising the necessary logistics (e.g. delivering, (biodegradable) packaging, distribution etc.) (IT, HU).

3.4 Environmental Impacts

Under environmental impacts of agri-environmental contracts, we could distinguish three aspects: improvements of environmental parameters (e.g. erosion, water quality, soil quality), effects on (agro)-biodiversity (e.g. birds, insects, flowers), and strengthening of landscape quality (e.g. landscape aesthetics, heritage value, recreation opportunities). However, as these impacts are often bundled, we analysed them here together.

The perceived advantage (or expectation) of result-based contracts was that they lead to **better environmental quality** (e.g. landscape, ecosystem services, biodiversity and/or genetic resources) (UK, FR, DE, ES, IT, DK). Given reasons for better performance were by obtaining better connectivity (DE) or by the landscape interventions themselves (e.g. agroforestry) (IT). This was perceived to have other societal advantages, for example for tourism (IT). One disadvantage could be that ideal timings from an ecological point of view, are not always ideal for farmers (UK).

In case of collective approaches, more impact on nature/environment was perceived when a wider **landscape approach** was used (e.g. in wetlands, pastures, meadows) (NL, DK, FR), combined with well-planned measures, such as landscape elements (NL) or fire control (FR).

On the other hand, the **environmental impact might be uncertain**. Given (potential) reasons were: climatological uncertainty (ES, IT, DK, DE), the fact that nature responds slowly (DK), wild animals damaging crops (IT), weed pressure due to flower strips (NL), invasive species (BE), urban pressure (ES), uncertainty of effectivity of the measures and/or required area of the proposed measures (DE, BE, UK, FR, DK).

Another concern for result-based contract approaches are the **indicators**. Indicators related to water quality and climate change are less robust (especially for water quality), intermediate/proxy results can result in impacts less than expected, and outcome indicators are not always easily understood by farmers and stakeholders (UK). On the other hand, when success is defined by the appearance of target species, AECMs can have a positive effect on the ecosystem as a whole (NL). One concern is that culture/historic features are not seen as important as measures for biodiversity (NL).

3.5 Legal, policy and political context

3.5.1 Administrative and financial burden above farm level

Value chain and collective contracts were considered to have less **bureaucratic burden**, e.g collectives can have low overhead costs as groups of farmers are paid directly and intermediaries are avoided (NL). Another point of view is that there are more tasks and burdens for the collectives because they need to spend more time on administrative tasks between all members. Similar to this, result-based approaches would require as well a substantial extra amount of administrative time. Regarding land tenure contracts in Spain, there are many technical difficulties to subscribe to, which requires more technical staff from the administration.

It is important to consider the particularities of each area when applying and developing the **indicators and criteria** of values for implementing result-based contracts. This is mentioned as a threat due to the workload that it will require. As this variability in different places will increase expenditures, this might raise a potential concern among administration (UK, ES).

In general, the application of all contract types requires a highly bureaucratic application and intense monitoring process (e.g. frequent inspections) resulting in a high workload (and therefore cost) for the administrations (DE).

3.5.2 Political and administrative support

Regarding the current **legal framework**, it is perceived that legislation is not adapted to collective (BE) and land tenure contracts (ES). For instance, land tenure contracts were perceived to face widespread ignorance, disinterest and confusion in administration and to miss a proper legal framework in Spain, which has led to difficulties in developing the contracts and low financial support for farmers. Another example is that collective contract duration was perceived to be too short with regards to landscape dynamics, but too long with regards to social dynamics (BE). If a region is stimulated for AECMs it is important to maintain them for a long period to have an effect on the area, if not it will go back to the original situation. The Netherlands and the UK highlighted the importance and the opportunity of changing the dichotomy between nature and agricultural land. For the benefit of farmers there is a perceived need to make less radical divisions, so that 'nature' does not automatically mean that it cannot be used for agricultural purposes anymore.

Some cases mentioned challenges in the **implementation of the contracts**. Institutional instability with frequent changes in rules and actors which contributed to incomprehension and lack of visibility which did not help the implementation of contract types (FR, ES). In the Spanish case, it was pointed out a few times that land tenure contracts were included in the local legal framework, although they are not implemented with specific measures due to the lack of political support and resources.

The development of the **new CAP** is mentioned as an opportunity in result-based, collectives and land tenure contracts. In different countries (ES, BE, DE) a clear opportunity to integrate result-based models and collective contracts into the new CAP was described; and in the case of UK, they would like to integrate them into their new environmental land management scheme (ELMS). This is due to the coherence between social, environmental and economic goals of the result-based approach and the objectives of the CAP and the Sustainable Development Goals (SDGs) (ES). In the Netherlands the concern was voiced that the inclusion of new measures in the CAP might not be fast enough for the CAP 2023, and if farmers are affected by the changes in measures and not being paid they would stop implementing them.

In some countries there have been **pilot projects** regarding result-based approaches (UK), which might help in the development of the contracts, while in others the lack of previous projects and therefore an administrative precedent is seen as a weakness to be able to develop them.

3.5.3 Combination of contract types

The **combination of two (or more) contract types** was seen as an opportunity (see Table 5), as is the case of the development of a result-based approach with collective aspects (BE), although this combination of contracts was also seen as a threat due to the complexity for its development (UK). Also, combinations of collective and value chain approaches (HU) have been suggested for further investigation. Furthermore, reported weaknesses of the result-based contract approaches were the farmers' exposure to financial risk (UK), a combination with actions-based payments therefore seems to be a useful strategy to counter farmer's risk and achieve high-level uptake.

3.5.4 Participation in governance

Governance related issues are only mentioned in collective and land tenure approaches. A **good internal and institutional governance** was perceived to provide the implementation of contract types and its beneficial effects on the land and nature. The achievement of this governance was seen as a challenge because of the lack of institutional stability and the continuing changes in actors involved. A participatory process in the development and implementation of the contract was perceived to imply the development of better governance.

4. SUMMARY PER CONTRACT-TYPE

4.1 Result-based approach

-> from farmer/NGO/administrators' perspective

4.1.1 Agro-management and economic viability

Result-based approaches were perceived to bring **less administrative burden** to individual farmers. They are expected to decrease the needs for fines and controls. Though the costs of **monitoring** were perceived to be high and funding for this was voiced to often be lacking (UK, NL). Involving farmers in monitoring and new technologies could reduce these costs.

Result-based approaches were perceived to be more **cost-efficient** (less transaction costs) compared to action-based approaches, and to allow for more **flexibility** in payments towards farmers. Increased flexibility in result-based approaches leads to a better customisation with farmers' management, as better use is made of farmers' knowledge and it can be adapted to different circumstances. However, the timing of monitoring (in case of self-assessment) might interfere with the timing of agricultural practices, therefore it is important to develop the design of the scheme in participation with farmers.

Knowledge building and exchange was perceived to be important as there is a risk that lack of knowledge might lead to environmental damaging practices. When better use is made of farmers' knowledge and expertise, farmers are likely to be stimulated to learn more about environmental friendly farming. This was perceived to create higher awareness and engagement of farmers. Facilitators were described as playing an important role in knowledge exchange, by bringing together farmers, providing specific training, organizing study groups, exchanges, newsletters etc. To increase the quality of facilitation, training and knowledge exchange between facilitators is recommended (UK). Especially for result-based approaches, training of farmers is perceived as vital to their success.

The limited duration of the contracts in general is an important issue and was related by CIL members to a lack of long term policy vision.

4.1.2 Environmental Impacts

The perceived advantage (or expectation) of result-based contracts was that they (will) lead to **better environmental quality** (e.g. landscape, ES, biodiversity, genetic resources) (UK, FR, DE, ES, IT, DK). Even when the appearance of target species is the goal of AECM, the measures were said to possibly have positive effects on the ecosystem as a whole (NL). Reasons for the better performance were related to the improved connectivity (DE) or by adding specific landscape elements (e.g. agroforestry) (IT).

On the other hand, the environmental impact might be **uncertain** due to: climatological uncertainty (ES, IT, DK, DE), the fact that nature responds slowly (DK), animals damaging crops (IT), invasive species (BE), urban pressure (ES), uncertainty of effectivity of the measure, and required area of the proposed measures (DE, BE, UK). Another raised concern were the indicators for measuring impact: indicators related to water quality and climate change are less robust, while intermediate/proxy indicators can result in less than expected impacts (UK).

4.1.3 Social impacts

Result-based contract approaches were perceived to increase **trust and collaboration** among farmers (ES, UK, IT), among farmers and their advisers (UK), among farmers and hobby farmers (IT), and among farmers and environmental organisations (UK). Further opportunities for increasing trust and collaboration between farmers and authorities given were to invest in dialogue instead of only checking on farmers (IT, UK). Result-based approaches could increase **motivation, empowerment and engagement** of farmers for the uptake of agri-environmental measures (IT, UK). The result-based approach was perceived as fairly rewarding knowledge, skills and effort (UK). Nonetheless, evenly spread payments across tiers might not provide incentives for farmers to join result-based schemes, and there is a possibility that initial motivation may wane. Clear and regular communication (e.g. through a project newsletter) with the participating farmers can help to continue farmers' engagement (UK). A weakness of the result-based contract approaches is the farmers' exposure to **financial risk** (UK). A combination with action-based payments therefore seems to be important to counter farmers' risk and achieve high-level uptake. It was hoped that through result-based approaches it would become more apparent the agricultural sector is delivering **value for money** (IT, UK).

4.1.4 Legal, policy and political context

Result-based approaches are perceived to require a substantial amount of time and effort for the **administration above farm level**. When applying the contract, particularities of different areas would need to be taken into account, which means higher workload for the administration as this would raise the complexity of contract design and its financial expenditures.

On the other hand, participants perceived that this contract type could be integrated in the **new CAP** (ES, BE, DE)**,** and in the case of UK, into the new Environmental Land Management Scheme (ELMS), which is due replace AECM in 2022/2023 (UK). According to the Spanish participants, this approach is prevailing in Europe because it fits into the main goals of the CAP and the Sustainable Development Goals. Its development and implementation could be an opportunity to promote **dialogue and cooperation** between authorities at different levels and farmers, instead a communication based on control (DK).

There are some countries with **pilot projects** (UK) which might be useful when developing and adapting the new contract types to those areas, but in other areas the lack of precedent is a main concern to its development (ES).

It is likely that the current action-based payment and the result-based payment will coexist, and this could complicate the demonstration of the approach and its policy design (UK). But as the farmers' exposure to financial risk (UK) was reported as a weaknesses of the result-based contract approach, a **combination with actions based payments** might just as well be a useful strategy to counter farmer's risk and achieve high-level uptake. Another potential combination with result-based approaches would be collective contracts (BE), although this combination of contracts is also seen as a threat due to the complexity for its development (UK).

4.2 Collective approach

-> from farmer/NGO/administrators' perspective

4.2.1 Agro-management and economic viability

Collective approaches are perceived to bring less **administrative burden** to individual farmers. Administrative burden seems to have shifted from individual farmers and the government towards the collectives, which mentioned they have to carry a lot of administrative work in order to get funding from the government.

Collective approaches are perceived to be more **cost-efficient** (less transaction costs) compared to individual approaches, because collectives create economies of scales (e.g. collectively buying seeds), and because they allow for more flexible payments towards farmers. However, insufficient funding for (the extra) costs carried out by the collectives were perceived to create tensions for their economic viability (UK, BE, NL).

Increased **flexibility** in collective approaches was perceived to lead to a better customisation with farmers' management, as better use is made of farmers' knowledge and it can be adapted to different circumstances. However, flexibility might be constrained by having to fit with agri-environmental priorities or limitations (UK) and inflexible rules of the funding agencies (FR).

As farmers were perceived to be more stimulated to learn more about environmental friendly farming, this was also perceived to create higher **awareness and engagement** of farmers. Collective approaches could create extra opportunities as farmers can learn from each other. Facilitators play an important role in **knowledge exchange**, by bringing together farmers, providing specific training, organising study groups, exchanges, newsletters etc. To increase the quality of facilitation, training and knowledge exchange between facilitators is recommended (UK). It was mentioned that group advice of farmers should ideally be complemented with individual advice (UK).

4.2.2 Environmental Impacts

Collective contract approaches were perceived to have **more impact on nature/environment** when a wider landscape approach is used (e.g. wetlands, pastures, meadows) (NL, DK, FR), combined with well-planned measures, such as landscape elements (NL) or fire control (FR). However, there might be some **unwanted environmental effects** (e.g. weed pressure in flower strips) (NL), or the contract duration might be too short to alter the landscape dynamics (FR) or to affect biodiversity (DK).

4.2.3 Social impacts

Working together in a collective was perceived to stimulate **motivation and positive attitudes** among farmers (increasing fun and confidence, widening social networks, decreasing worries, isolation and in some cases even depression) (FR, NL, UK). Also **trust, empowerment, ownership and communication** among farmers were perceived to improve (NL, UK) or were expected to improve (BE). Nonetheless, some farmers said to experience too many checks for monitoring, and stated they have not received enough trust and flexibility from their government (NL). Clusters of neighbouring farmers reflecting and learning about AECMs together, were perceived to lead to more ownership of the measures (NL, FR) and increased empowerment (NL). High levels of communication and collaboration between the collectives and the policy-makers were perceived as strengths of the collective approaches (NL, FR), although wider and more efficient involvement of (potential) stakeholders was stated to be needed (NL).

A reported challenge for collectives was the lack of funding and/or time for **community outreach- or promotion activities**, which was said to cause a lack in the collective's visibility (UK, NL, FR). Communicating and demonstrating environmental actions and successes is thought to increase the societal appreciation of farmers and their products (UK, NL, FR).

Remuneration for less production can be experienced as demotivating for farmers who would prefer to be **rewarded for environmental efforts** instead (NL), which leads us to combinations of collective approaches with result-based approaches. When progress is not **monitored**, farmers can lack a sense of achievement (UK) which was described as demotivating. Motivation for agri-environmental measures by the farmers can decrease when the goal becomes harder to reach (NL). **Controls** should be fair, meaning that farmers should be checked on (or self-monitor) the same aspects (NL).

In collectives there is a need for good **internal governance** (FR, BE, DK). A facilitator can provide guidance, structure, coordination and mediation (UK, NL). High facilitator turnover (UK) was described as being a threat to long term vision and continuation of collectives (NL, FR).

Finally, successful agri-environmental outcomes could enhance areas and **develop the area economically** (FR).

4.2.4 Legal, policy and political context

Collective approaches were perceived to have **less bureaucratic and financial burdens on government level**. These contract types can have low overhead cost because groups of farmers can be paid directly, thus avoiding intermediaries (NL). However, this lower workload for the (governmental) administration may be reflected in more administrative work for the collectives, which mentioned they have to carry a lot of administrative work in order to get funding from the government.

The current **legislation** is not appropriate for the development of collective approaches, and therefore it would be a good opportunity to change it when developing the new Common Agricultural Policy, or in the case of UK into the Environmental Land Management Scheme (ELMS), even though it is not clear that it will have political support.

For the development of collective contracts, the **coordination and participation** between different stakeholders across political contexts is perceived to be very important.

The **time frame** of AEC was perceived as a concern, as contracts might be too short regarding landscape dynamics, too short on the farm management level, but too long regarding social and political dynamics. In order to have an effect on the landscape, it should be maintained for more than 30 years (BE). Indeed, the doubt was voiced that the necessary policy changes and adaptation of the legislation would be fast enough for development of collective approaches (BE). In France the institutional instability and the frequent changes in rules and actors were said to complicate the development of the collective process and the visibility of these contracts.

In relation with governance, a good internal and institutional **governance** for the implementation of the contract was said to be required. This is a challenge due to the current institutional instability and the continuing changes in actors involved.

As mentioned in the summary of result-based approaches, the potential of **combinations** between result-based approaches and collective contracts was suggested by participants (BE).

4.3 Combination of Land Tenure and collective approaches

-> from farmer/NGO/administrators' perspective

The mixed land tenure-collective approach, represented by land stewardship agreements and territorial contracts, were only analysed in the Madrid region (ES). This approach already appears at different levels in Spain. A common framework, conditions and content in order to apply it in the country exist, but its concrete implementation depends on regional levels.

4.3.1 Agro-management and economic viability

Mixed land tenure and collective approaches were perceived to bring less **administrative burden** to individual farmers. They might be interesting for farmers, though if not complemented with **payments**, incentives were perceived to be missing for creating higher environmental performances.

4.3.2 Environmental Impacts

Mixed land tenure and collective approaches are perceived is being cross-sectional in nature and apply a clearly **territorial approach**. These promote a balance with the environment, which is in harmony with the guidelines of the CAP.

4.3.3 Social impacts

Mixed land tenure and collective approaches were perceived to guide and **motivate farmers** to change their mentality and adopt changes for **sustainable farm management**. On the one hand the contracts provide **flexibility** in application of measures. On the other hand there are few social incentives to join (e.g. low or no remuneration). Involving a wide range of stakeholders in a **participatory multi-actor process** was received positively. This requires a slow process to overcome the mistrust and/or unawareness between the agricultural sector and conservation organisations. Stated opportunities for the contracts were to improve communication with the administration level and to involve environmental NGOs and private companies for financing these NGOs. Furthermore, land tenure approaches could promote **land stewardship** initiatives in the management of natural areas, and custodial institutions could be present when the administration does not have conservation powers. In case of successful agri-environmental outcomes, territories could be enhanced and become a tourist attraction creating new **job-opportunities**.

4.3.4 Legal, policy and political context

In Madrid, mixed land tenure and collective approaches are recognised at the regional level, but the **legal framework** is not sufficiently developed and it does not have specific measures, so it is not being implemented yet. Participating practitioners therefore perceived widespread ignorance, disinterest and confusion at the government level in relation to the implementation of this contract.

The **uncertainty about the new CAP** and the lack of political will and momentum were described as threats for the contracts development. On the other hand, there are already initiatives from custodial institutions in Madrid and other regions that could serve as an example.

The development of this contract is an opportunity to develop **territorial governance**. While at the same time its development requires a high degree of governance, which is seen as a threat.

4.4 Value chain approach

-> from farmer/NGO/administrators' perspective

4.4.1 Agro-management and economic viability

In value-chain approaches the perception of the **administrative burden** was mixed and lack of administrative **flexibility** was mentioned in the Hungarian and Italian cases. By combining public with private (value chain) funding, continuity might be increased, which increases the **economic viability** of the practices.

4.4.2 Environmental Impacts

No **environmental impacts** spontaneously were mentioned during the SWOT of the value chain approach by farmer/NGO/administrators (HU). This might signify that the impact of who is funding these agri-environmental measures (markets, government subsidies) is less concerned about environmental impacts compared to result-based, collective, or land tenure approaches.

In the case of mixed result-based and value chain approaches, contracts are expected to lead to better environmental quality (IT). Reasons for the better performance are related to added landscape elements, e.g. agroforestry (IT). On the other hand, the environmental impact might be uncertain due to climatological uncertainty or animals damaging crops (IT).

4.4.3 Social impacts

Value chain approaches were perceived to increase **trust** between farmers and to **motivate** farmers to start private initiatives (e.g. local fair) (HU). The selling of locally produced products on local markets needs targeted **marketing** and advertising, in order to communicate for example, the added value of products. There was a perceived need for **cooperation with other sectors**, for example in logistics (delivering, (biodegradable) packaging, ordering) (HU, IT). For the value chain approach to be successful, it was perceived that also **consumers** need to be targeted to become more interested in environmental friendly products (IT). In case of successful agri-environmental outcomes territories can be enhanced and become a tourist attraction creating new **job-opportunities** (IT).

4.4.4 Legal, policy and political context

Value chain approaches were perceived to have minimal **bureaucratic and administrative burdens**. This contract approach is established in Hungary as a countrywide system, so it already has comprehensive support in the Hungarian administration. Nevertheless, practitioners noted that there is no coherence between its regulation and its control: the lack of regulation increases the risk of non-local products appearing in local farmer's markets.

4.5 Value chain approach from companies/buyers' perspective

Three SWOTs of innovative value chain contracts were carried out by companies, without the inclusions of farmers. Recurring themes in these SWOTs therefore differ strongly from the SWOTs from farmers/NGO/administrator's perspective. Based on the input from the SWOTs recurring themes were identified which closely match the five primary activities in Michael Porter's framework of value chains (1985), although some extra elements and categories had to be added to this framework. The categories used in this report are:

i) inbound logistics, which include procurement of resources/raw materials, storage in warehouses, control of inventory and quality control;

ii) outbound logistics which include all activities to distribute final products to consumers, from storage, to shipping logistics;

iii) operations which include all processes to convert input resources into final products with added value such as labelling and branding, production/quality standards and environmental impacts;

iv) marketing and sales including all strategies to enhance product visibility to potential customers, customer relationships as well as customer communication;

v) services including all services offered to customers such as product repairs, maintenance, exchange and warranty; and

vi) the added category of external drivers, which are the elements that are largely out of control of the value chain actors, such as market competition, market regulations, but also e.g. climate change, war, pandemics etc.

Out of discretion, the three innovative value chain contract approaches will not be specified and are referred to as DE1, DE2 and DE3.

4.5.1 Inbound and outbound logistics

In two value chain contract approaches (DE2 and DE3) a basis of **trustful and long-term (stable) supply relationships** are described. These relations are perceived to make negotiation and regulation of individual contract details both within and outside of legal contracts possible, although adherence to additional requirements depends on the willingness of the supplier. Responsibilities for control and securing are clarified, although a partial lack of transparency can occur, e.g. in case of non-European producers and suppliers. In one value chain contract approach (DE1) a perceived strength by companies/buyers is the standardised reporting and possibility for electronic submission of this reporting by supplying farmers. For this, sufficient technical and nature conservation expertise for the

planning and implementation of the intended project is needed, as well as the will and permission to publish the entire product chain documentation (project description, certification report, monitoring report).

The involved companies perceive to be bearing the **risks** of their suppliers to a certain extent, however, due to the strict controls, they estimate this risk to be small. In both DE2 and DE3 requirements for certification could help raise producer prices, which would on the other hand imply higher purchase prices for the involved companies/buyers. In the case of regional approaches, limited availability of raw materials and negative impacts on harvests due to climate change might be a risk of strong dependency on regional production.

4.5.2 Operations: certificates, environmental impact, training

All three cases (DE1, DE2, DE3) are committed to **agri-environmental effectiveness**.

DE1 commits to nature conservation, and the scientific examination of the measures or impacts, which guarantee their environmental effectiveness. In the case of DE1 the scientific verification for **certification** of the measures or results (depending on contract type) guarantees environmental effectiveness. Quantification was perceived to make projects more transparent, verifiable, concrete and better understandable. Transparency, credibility and trust in the certificates is perceived to increase, especially since they can be supported (through investment) regionally. In DE1 businesses receive a certificate in return for their commitment, which companies can use for their marketing, as well as for communication with their customers. Investors may receive certain additional services. Additional funding for nature conservation and biodiversity could be raised through their certificates.

DE2 aims at biodiversity protection, soil conservation, etc. and to this end finances all their training courses, pilot projects, etc. themselves.

In DE1 and DE2 the companies have no direct contact with the producers, but **educating and training** suppliers and producers on agri-environmental issues was described as being an opportunity. In DE3 support for networking (for e.g. farmers and nature conservation, landscape protection associations, consultants) and for individual farm advisory services is provided. Regular exchange of ideas for improving environmental and/or social measures is organised with growers' associations which allows associations to take up ideas from the business world as well.

4.5.3 Marketing and sales

Increased demand for agri-environmental certificates was stated to be expected as there are increased **corporate responsibility demands** from the public towards businesses (DE1). Communication with the public and making the investment opportunities in certificates for agri-environmental production known to the public needs to be further developed. Motives for businesses to invest in the certificates are to relate to their stakeholders and to manage (potential) conflicts, especially with local communities and NGOs. Certification increases the impact of engagement for the company and better protects them against critical reactions from stakeholders or from the general public. On the one hand certificates can increase the reputation and brand value, especially with opportunities for positive external communication, **marketing** as well as enhancement of company **credibility and image**. On the other hand, there is a risk to company brands as accusations of greenwashing from company

stakeholders or the general public. Furthermore, involvement with the certification platform enables companies to differentiate from competitors.

One case stated that they would try being completely **transparent** with customers, which they aimed to guarantee with their seal and its underlying controls (DE2). Furthermore, a higher appreciation for food is aimed at by communicating what is involved in the process of producing its product (DE2). This may result in higher prices, which could be passed on to the producers.

4.5.4 Services offered to customers/investors

One case provides long-term guarantee of **product quality** and offers their product without seasonality (DE2). Another case aims at providing **biodiversity and social commitment to the region** by supporting events, growth and/or expansion for farmers and risk insurance for farmers (DE3). In the third case, the investor receives an **investment certificate** stating their participation in the funding of a (verified) agri-environmental production project (DE1). In the event that a project is not (fully) carried out in accordance with the project description, the amounts paid must be refunded, and certificate holders can then reclaim the investment against return of the certificates in accordance with the statutory provisions. Investments with flexible budgets are provided at the discretion of the company.

4.5.5 External drivers

Both DE1 and DE2 are experiencing market competition. In DE2, the world market orientation and retailers preventing improvement in producer prices were perceived as threats to their business. In DE3 structural change in agriculture (e.g. due to climate change, changes in CAP regulation, shift in regional markets etc.) could impair produce cultivation. Similarly, in DE2 difficulties with framework conditions in agricultural policy, as well as the framework conditions set by traditional farmers' unions were perceived.

4.6 Summary

In Table 6 an overview is given of the main outcomes from the contract SWOTs per contract type. These are summarised here:

Result-based contracts approaches were perceived as flexible in payments towards farmers, being able to customize the measures with farmer's management; but to do it effectively it is important to define long-term contract duration in order to be able to affect the landscape dynamics and impact on biodiversity and ecosystem services state. The limited duration of the contracts could strongly affect all the contract types analysed in Contracts 2.0. At the same time, result-based contracts could represent a financial risk for farmer. From the administrative and political perspective, result-based contracts have a suitable fit with the new CAP; however, this approach implies an important administrative burden on government level.

Collective approaches need trust and collaboration among farmers, as well as intrinsic motivation to uptake AECM. At the same time, those contract types could motivate empowerment and engagement of the farming sector to conduct environmental and sustainable practices. These kinds of measures were related with the obtaining of successful agri-environmental outcomes as those embrace large areas. Collective approaches reduce the administrative burden on government level but increase among farmers' management.

Land tenure under collective approaches (territorial contracts and land stewardship agreements) were strongly related with the possibility to improve environmental quality and to enhance and develop rural areas economically; however, requires from an important administrative burden for individual farmers.

Value chain approaches could have a relevant contribution in terms of agri-environmental outcomes and in the economic development of the areas in which they are applied from the point of view of practitioners. From the companies' and buyers' perspective this contract is cost-efficient and could be customised with farmers' management. This contract approach was also strongly related with perceived improvement of environmental quality.

Table 6: Overview of practitioners' perceptions per contract approach. Items with strong negative relation (--), negative relation (-), positive relation (+), strong positive relation (++), not mentioned (N/M) or not applicable (N/A).

Recurring theme	Recurring subtheme	Result-based (7)	Collective (8)	Mixed land tenure and collective (2)	Value chain (2)	Value chain from companies/buyers perspective (3)
Agro-management and economic viability	**Administrative burden** for individual farmers	--	--	--	Mixed responses	N/M
	Administrative burden for farmers collective	N/A	++	N/M	N/A	N/M
	Costs of monitoring	+	+	N/M	N/M	N/M
	Cost-efficiency of the contract	+	+	N/M	N/M	++
	Flexibility in payments towards farmers	++	+	N/M	N/M	N/M
	Customisation of the measures with farmers' management	++	++	+	-	++
	Limited **duration of the contracts** (due to lack of long term policy vision).	++	++	++	++	N/M
Environmental impact Impacts	Improved **environmental quality**	+	+	++	N/M	++
	Limited **contract duration** might be too short to alter the landscape dynamics or to affect biodiversity.	++	++	++	++	++
Social impacts	**Trust and collaboration** among farmers	+	++	N/M	+	N/M
	Trust and collaboration among farmers and their advisers	+	+	N/M	N/A	N/M
	Trust and collaboration among farmers and environmental organisations	+	N/M	+	N/M	N/M
	Motivation, empowerment and engagement for the uptake of agri-environmental measures	+	++	-	+	N/M
	Collaboration between the collectives and the policy-makers	N/A	+	+	N/A	N/A
	Financial risk for farmer	++	N/M	N/M	N/M	-

Recurring theme	Recurring subtheme	Result-based (7)	Collective (8)	Mixed land tenure and collective (2)	Value chain (2)	Value chain from companies/buyers perspective (3)
	Successful agri-environmental outcomes could enhance areas and develop them **economically**	N/M	++	++	++	N/M
Legal, policy and political context	**Administrative burden** on government level	++	--	N/M	--	N/M
	Administrative burden on the level of the collective	N/A	++	N/M	N/A	N/A
	Fit with **new CAP** (or in UK: ELMS)	++	-	-	N/M	N/M

5. FINAL REMARKS

Overall, we found a **high interest** in these new contract types among participating farmers and stakeholders across CILs, indicating that there is a potential role for them in the future provision of environmental public goods from farming. A general challenge for agri-environmental contract development from practitioners' perspective is their **time frame**: On the one hand the importance of long term visions (+/- 10 years) and continuation taking into account landscape dynamics are stressed. On the other hand social dynamics (turnover of transhumance, political changes etc.) make such long term visions and continuation very difficult. In Table 7 more specific recommendations per contract approach are described.

The most mentioned **recommendation** (three out of four contract-types investigated) was the need for further knowledge building and exchange on farmer's level. Participation and inclusion of farmers in the design of agri-environmental schemes were mentioned in collective and result-based approaches. Not only including farmers in the design but also in the monitoring process (i.e. self-assessment) was perceived as an opportunity to reduce costs of result-based contracts. For result-based approaches it was perceived to be key to define robust indicators for monitoring, and to further investigate its combination with action-based payments to counter farmer's risk and achieve high-level uptake.

Within the theme of social impacts most recommendations appeared. It was perceived as being essential to have a clear and regular communication and transparency with farmers on agri-environmental contracts, which could be applied to all contracts. The need for investing in community outreach- or promotion activities has been strongly stressed in several of the evaluations of collective approaches, as well as in the SWOTs of value chain approaches both by farmers and by companies. Investing in targeted marketing and advertising appears to be perceived as an appropriate strategy for value chain approaches. For the development of result-based approaches, it is perceived to be important to investigate its combination with action-based payments to counter farmer´s risk and achieve high-level uptake. For farmers to be motivated monitoring their progress could motivate them by creating a sense of achievement.

Regarding recommendations on legal, policy and political context, the importance to invest in dialogue between farmers and (government) administration, instead of solely monitoring and control was considered relevant for result-based, collective and land tenure measures. The use of pilot projects for developing innovative contracts might be useful for its implementation, as is the case in the UK.

Table 7: Recommendations per contract approach. Recommendations which were mentioned (+), not mentioned (N/M) or not applicable (N/A) in the SWOTs.

Recurring theme	Recommendation	Result-based (7)	Collective (8)	Mixed land tenure and collective (2)	Value chain (2)	Value chain from companies/buyers perspective (3)
Agro-management and economic viability	Further knowledge building and exchange on farmers level.	+	+	+	N/M	+
	Combining public and private funding, to increase the economic viability of the agri-environmental practices.	N/M	N/M	+	+	N/M
	Develop the design of the agri-environmental scheme in participation with farmers.	+	+	N/M	N/M	N/M
	Involve farmers in monitoring	+	+	N/M	N/M	N/M
Environmental impacts	Define (robust) indicators.	+	N/M	N/M	N/M	N/M
Social impacts	Invest in clear and regular communication with farmers on agri-environment contract (projects).	+	N/M	N/M	N/M	N/M
	Invest in community outreach- or promotion activities.	N/M	+	N/M	+	+
	Invest in targeted marketing and advertising.	N/M	N/M	N/M	+	+
	Further investigate potential of combining result-based and collective approach as farmers prefer to be rewarded for environmental efforts instead of for less production.	N/M	+	N/M	N/M	N/M

Recurring theme	Recommendation	Result-based (7)	Collective (8)	Mixed land tenure and collective (2)	Value chain (2)	Value chain from companies/buyers perspective (3)
	Monitor progress so farmers can have a sense of achievement which is motivating.	N/M	+	N/M	N/M	N/M
	Invest in wide and efficient involvement of (potential) stakeholders.	N/M	+	+	N/M	N/M
	Further investigate the combination of result-based and action-based payments to counter farmers' risk and achieve high-level uptake.	+	N/A	N/A	N/A	N/M
	Implement good internal governance of collectives through facilitators who provide guidance, structure, coordination and mediation.	N/A	+	N/M	N/M	N/M
Legal, policy and political context	Promote dialogue and cooperation between authorities at different levels and farmers, instead of communication based on control.	+	+	+	N/M	N/M
	Use of pilot projects for developing innovative contracts.	+	N/M	+	N/M	N/M

Another general outcome of the SWOT analysis which can be a recommendation when developing innovative contracts is the suggestion to **combine contract approaches**: i) result-based approaches can be combined with collective approaches (BE), ii) collective and value chain approaches can be combined (HU), and iii) result-based contract approaches can be combined with actions based payments (UK). On the other hand, contract development becomes increasingly complex when combining different contract approaches (UK).

As the next steps, WP2 and WP5 will further inquire existing agri-enviromental contracts as well as contracts which are under development within the Contracts 2.0 project. The next steps for the CILs and PILs are to develop their trajectories for the coming two years and start developing (improved) innovative agri-environmental contracts or 'dream contracts'. For this, an iterative (design) process is set up through which the findings of the different Contracts 2.0 outputs will be fed to and from the CILs, PILs and other WPs.

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