



Unfair Trading Practice Regulation and Voluntary Agreements targeting food waste

D3.2 A policy assessment in select EU Member States



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List of abbreviations

BEIS	Department for Business, Energy and Industrial Strategy
BRC	British Retail Consortium
CAP	Common Agricultural Policy
CC	Courtauld Commitment
DEFRA	Department for Environment, Food and Rural Affairs
EC	European Commission
GCA	Grocery Code Adjudicator
GHG	Greenhouse gas
GSCOP	Groceries Supply Code of Practice
MLoR	Minimum Life on Receipt
MS	Member State
NFU	National Farmers Union
OFT	Office of Fair Trading
PO	Project Office
SCOP	Supermarket Code of Practice
SFA	Sustainable Food Alliance
SFP	Sustainable Food Platform
TCEF	Taskforce for Circular Economy in Food
UTP	Unfair Trading Practices
VA	Voluntary Agreement
WP	Work Package
WRAP	Waste & Resources Action Programme

1 Executive summary

REFRESH recent system mapping exercise (Burgos et al. 2017) provided a holistic view of the drivers of food waste which have an impact across the whole supply chain, such as forecasting errors, over-optimistic projections, lack of data sharing, late cancellation, last-minute modifications and order rejections, minimum life on receipt (MLoR) criteria, quality specifications, minimum order quantities criteria, product over-stocking etc. A bottom-up analysis of five food categories (bread, dairy, potatoes/tomatoes, prepared meals and processed meat) showed that these drivers are linked to unfair trading practices (UTPs) across the food supply chain. Such practices can occur at any stage of the supply chain, and at any stage of the contractual relationship: during negotiations, when a contract is performed, or in the post-contractual phase.

Given the cross-cutting nature of these drivers and the complexity of the food supply chain, a wide diversity of actors with various profiles is involved. In this context, REFRESH researchers (Osoro 2016) explored alternative policy measures to reduce food loss and waste, such as Voluntary Agreements (VAs), called also “voluntary alliances” or “Frameworks for Action”. Policy researchers investigated the success factors of VAs to understand how these alternative measures can enhance collaboration throughout the supply chain with the common ambition to reduce food waste.

This report provides a **qualitative assessment of two typologies of policy interventions** having an impact on food loss and waste:

- 1 Regulations against **Unfair Trading Practices (UTPs)**, which have been identified as an underlying contributory factor in the generation of food loss and waste at different levels of the supply chain;
- 2 **Voluntary Agreements (VAs)** among stakeholders of the food supply chain to prevent, reduce and/or valorise food waste.

Two sets of country-based **comparative case studies** were developed, namely in the **UK** and **Italy** for regulations against UTPs, and in the **UK** and the **Netherlands** for VAs.

It was found that, for both VAs and regulation against UTPs, a **preliminary assessment of underlying food supply chain market structure** is important to identify the most appropriate policy measures for a specific EU MS. For example, the size and number of actors at each level of the food supply chain, the level of market concentration and power imbalance among actors, the existing framework for dealing with food waste, the availability of data and funds, etc. should be initially assessed.

Food supply chains are particularly susceptible to **UTPs** in MSs where **market power is concentrated** within a few large retailers interacting with a large number of suppliers. Perishable products, such as fresh fruits and vegetables supplied direct from primary producers to retailers are particularly at risk due to the time constraints in finding alternate outlets.

As UTPs are primarily a commercial issue, **neither the UK nor Italy have directly linked the consequences of UTPs to food waste reduction strategies**. Apart from the underlying influence of UTPs on the effectiveness of a range of direct interventions to address food waste, it is also important to look at solutions for food

surpluses generated by UTPs. For instance, redistributing the surpluses that result from order cancellations linked to UTPs or ensuring that the “wrongdoer” purchases the agri-food product object of the UTPs from the “victim” for a certain period.

To tackle **UTPs**, it was found that an effective approach would be the **creation of an independent authority to investigate any infringement of good trading practices**, e.g. through an industry code of practice, and, if needed, the introduction of **sanctions on actors who are found to have not met the standard required by the industry code**. This authority should receive adequate funding to enable thorough investigation of suspected UTPs and have the power to impose a sufficient level of fine to act as a deterrent. The UK approach in setting the maximum level of fine as a percentage of the wrongdoer’s turnover could become a good practice to extend to other countries.

Preventing retaliation by “wrongdoers” against those raising cases of potential UTPs should be a main feature of any system designed to address UTPs. The main fear amongst suppliers in bringing forward cases of UTPs is that of being de-listed by their retail customers. Allowing confidential claims to be lodged and carrying out periodic independent investigations to identify UTPs could be two effective strategies to overcome the “fear factor”.

Other recommendations identified include adopting a common **EU-level definition of UTPs in relation to grocery supply**, to avoid unequal treatment of comparable situations across EU and, furthermore, allow the judgement of cases based on the principle of **equity**. The UK experience also suggests that, besides direct and nation-based grocery suppliers, **indirect and foreign suppliers** also need to be **protected against UTPs**. In Italy (where a regulatory framework against UTPs has been established only recently) as well as in the EU MSs that have not done it yet, the next step would involve the adaptation of the general framework to the specific features of their internal market, rather than formally adopting the general EU-level scheme.

As for **VAs**, it was found that the **level and the nature of funding** has a significant impact on their lifetime and agendas. For example, VAs receiving governmental/private funding are influenced by national/company priorities or budgetary constraints. VAs funded by the government are sensitive to changes in political agendas, while privately-funded VAs run the risk of being designed according to the largest contributors’ priorities. VAs that rely on an appropriate balance amongst funding sources have a higher chance of being stable and effective. To ensure a VA’s relevance, **signatories must benefit from their participating**, either **financially** or in terms of **heightened visibility**. In addition, VAs should establish **ambitious yet realistic targets**, achievable by their signatories, and robustness and transparency of data reporting should be forefront to ensure the credibility of the initiatives.

Another interesting finding is that **VAs** can be implemented **alongside compulsory legislation or** provide an **alternative to it**. An advantage of them, compared to legislation, is that they can be designed and adapted relatively quickly depending on political goals related to food waste. Furthermore, since a VA’s participants tend to be involved also in its design, VAs adopt more realistic targets and a more concrete approach than legislation, and stakeholders tend to approach them with a more constructive attitude. **The role of a third party is crucial in managing a VA**, notably to facilitate actor accession to it, ensure confidentiality of data, supervise and eventually nudge compliance with the agreement. This third party can also ensure a wide

representation of actors from the whole supply chain. This, in turn, is essential to tackle the issue of food waste from farm to fork.

Last but not least, **VAs and UTPs were found to be interlinked: VAs can be an effective tool to explore the effects of regulation against UTPs and assess actors' readiness to avoid market power abuse.** VAs are also likely to be more effective in developing whole chain solutions to food waste when UTPs are less of an issue between primary producers and their retail markets. If primary producers are poorly represented within VAs (which may in itself reflect UTPs within the supply chain), this will in turn reduce the effectiveness of VAs.

2 Introduction and objectives

This report aims at providing a **qualitative assessment of two sets of country-based comparative case studies** illustrating the simultaneous interaction of policies addressing food waste, directly or indirectly, in select EU MSs, namely the UK, Italy and the Netherlands. The case studies will deal with:

- 1 The regulatory framework against **Unfair Trading Practices** (hereafter, UTPs) that lead to the generation of food waste at different levels of the supply chain.

Such trading practices can occur at any stage of the supply chain, and at any stage of the contractual relationship: they can be imposed during negotiations, when the contract is performed, or in the post-contractual phase. It has been pointed out that these practices are a systemic driver of food waste¹ (Burgos et al. 2017). In the UK, the supermarket watchdog “Groceries Code Adjudicator” identifies best policy practices to tackle the gaps in bargaining power between supermarkets and their suppliers². The objective of this case study is to compare the UK with another EU MS, namely Italy, to assess the effectiveness of the policy mix built around UTPs focused on food waste.

- 2 **Voluntary Agreements** (hereafter, VAs) for preventing, reducing, and/or valorising food waste.

Voluntary Agreements are defined by the REFRESH policy brief “Voluntary Agreements as a collaborative solution for food waste reduction” (Burgos et al., 2018) as “Self-determined commitments or pacts with qualitative and quantitative objectives, developed by private entities and/or other stakeholders in consultation with their signatories. They are used as alternative courses of action to traditional legislation, can be piloted by government officials, businesses or other actors, and can be used in addition to, or independently from existing legislation”.

This report provides a comparative analysis of how such agreements fit in the national policy mix in the UK and the Netherlands, and of how the mix impacts on food waste. The UK’s Courtauld Commitments (hereafter, CCs) are analysed in the framework of their policy mix and compared to what is now the Taskforce for Circular Economy in Food (hereafter, TCEF) in the Netherlands.

For each policy intervention, the two **country case studies** were selected so as to achieve a certain **diversity** in terms of factors most relevant to UTPs and VAs:

- 1 The existing level of **commitment** to reduce food waste;
- 2 The status of existing food waste **reduction strategies**;
- 3 **Institutional setting** and legal system/tradition;
- 4 Food supply chain governance and **market structure**.

¹ http://www.eca.europa.eu/Lists/ECADocuments/SR16_34/SR_FOOD_WASTE_EN.pdf [Accessed 06.07.2017].

² <https://www.gov.uk/government/news/survey-shows-groceries-code-adjudicator-is-making-a-difference> [Accessed 06.07.2017].

3 Methodology: Comparative policy case studies

The design of the comparative policy case studies will follow the methodological recommendations by Yin (2003) and Scholz and Tietje (2002), detailed in Appendix 1. Additionally, to increase the *construct* and *internal validity* of the case study design, the work of Bardach (2002) “*A practical guide for policy analysis: the eightfold path to more effective problem solving*”, which suggests an analytical process to assess public policy interventions, will be used. Although case studies will adopt the framework defined in Appendix 1, a certain flexibility will be allowed as long as they abide by the protocol defined below.

A core element of the REFRESH policy case studies is their comparative approach. Comparative analyses provide important insights to better understand policy processes, learn how (and why) policies vary or have different effects in different contexts, and what lessons may or may not be “transferred” across borders. Therefore, after analysing UTPs and VAs within single countries, comparative analyses will be carried out on the results.

To ensure consistency, all case studies will follow the structure defined below:

- Definition of the problem addressed (UTPs or VAs);
- Identification of the causes (drivers) and of the consequences;
- Identification of relevant stakeholders (firms, consumers, policymakers, etc.);
- Identification of the main policy interventions implemented and of other policies impacting on the field;
- Identification of the resources devoted and of the financial impacts of these interventions, where available;
- Evaluation of the coherence and synergy among national-level policies impacting on the field;
- Evaluation of the coherence and synergy with EU-level policies impacting on the field;
- Identification of the key challenges in designing and implementing existing/potential interventions;
- Identification of the factors of success/positive synergies.

More details on the research protocol are provided in Table 1.

Table 1. Research protocol for the case studies.

Section	Rationale	Main elements	Methodology	Further details
Problem / opportunity	Which is the problem that the policy intervention is addressing / should address? What are the boundaries of the problem?	Problem definition; quantification and relevance of the problem at economic, environmental and social levels.	Literature review; qualitative interviews; quantitative data (if available).	UTPs: problem; VAs: opportunity (coordination).
Causes (drivers) and consequences of the problem	Which are the drivers (institutional, etc.) leading to the generation of the problem? What are the consequences deriving from the problem?	Identification of the causes; identification of the consequences; elaboration of a problem tree/map.	Literature review; secondary data analysis.	For VAs, describe drivers and consequences of the lack of coordination.
Relevant stakeholders	Which are the groups (e.g. large retailers, producers, processors, small retailers, institutions, etc.) or individual (e.g. consumers) who can affect or be affected by the problem?	Stakeholders; type of involvement; interest in the issue, influence / power in the policy process; resources held (money, direct food production, skills and knowledge, etc.).	Literature review; expert opinions.	UTPs: stakeholders affected by the issue; VA: stakeholders taking part in the agreement.
Policy intervention	Which type of intervention was / can be designed to address the problem? Are there any interventions / regulations impacting indirectly on it?	Policy type, rationale of the policy, intervention mechanism, objectives, targets; indirect effects.	Literature review; interviews; analysis of the legislation.	When no direct intervention was implemented, describe the policy framework and indirect impacts.
Resources and financial impact	What investments did the government or other decision-makers carry out to implement the policy intervention? What are the impacts/envisaged impacts of the intervention? Are the outcomes coherent with the objectives stated?	Cost of the investment to implement the intervention; economic, environmental and social impacts.	Literature review; analysis of the legislation; eventual qualitative interviews with operators from different sectors; expert opinions.	When no direct intervention was implemented, or outcomes are not known, focus on costs of the problem and potential policy impacts.

Section	Rationale	Main elements	Methodology	Further details
Coherence and synergy with other national-level policies	Is there a wider policy framework or a specific national strategy within which the intervention is embedded / could be embedded? Are there any other policy interventions in related fields that could scale up or limit its effectiveness?	Relevant national policies; coherence with other national policies; potential limitations generated by other policies; potential synergies with other policies to scale up the impact of the intervention; way the intervention (if any) and other policies interact.	Literature review; desk research; analysis of the legislation; expert opinions; qualitative interviews with decision-makers.	When no direct intervention was implemented, or outcomes are not known, focus on the aggregate impact on the issue of existing policies in other fields.
Coherence and synergy with other EU-level policies	Are there any EU interventions impact on the field? Is the national-level policy intervention / policy framework coherent with EU-level policies in that field, or related fields (i.e. Circular Economy)? What EU policies (if any) could scale up or limit its effectiveness?	Relevant EU policies / strategy; coherence with EU policies / strategies; potential limitations generated by EU policies; potential synergies with EU policies to scale up the impact; way the intervention (if any) and other policies interact.	Literature review; desk research; analysis of the legislation expert opinions; qualitative interviews with decision-makers.	List both the EU policies / strategies aiming at addressing the problem, and the policies fostering it (e.g., prohibition of State aid).
Main challenges in designing and implementing the intervention	What are the main challenges encountered (or that could be encountered) in the conception, design and implementation of the intervention?	Financial challenges; social challenges and acceptability; data availability; etc.	Qualitative interviews with decision-makers; expert opinions; author's analysis.	When no direct intervention was implemented (e.g. against UTP in Italy), show potential threats.
Factors of success and key learnings	What are the factors of success (or potential factors of success) of the interventions? If already implemented, what key learning can be derived from the implementation of the intervention and from its impacts?	Financial factors; place-related factors; social factors; implications for future policy design.	Qualitative interviews with decision-makers; expert opinions; author's analysis.	When no direct intervention was implemented (e.g. to address UTP in Italy), describe potential opportunities.

Source: Authors' own elaboration.

4 Case study 1: Unfair Trading Practices and effect on food waste

4.1 Unfair trading practices: definition and context

Although UTPs concern primarily the commercial transactions among different players along the food supply chain, they may result in food waste, or lessen the impact of policies specifically aimed at reducing food waste. While some frameworks adopted to address UTPs do not explicitly engage with the problem of food waste, food waste is often an acknowledged by-product of UTPs. For example, a 2016 European Parliament briefing states that “unpredictable changes of contract terms may lead to overproduction and result in unnecessary food waste” (EC 2016b, p. 4). Moreover, the UK’s Groceries Code Adjudicator Christine Tacon publicly made the link between UTPs and food waste in November 2017 (The Grocer 2017).

UTPs are defined by the EC Green Paper (2013, p. 3) as:

“...practices which grossly deviate from good commercial conduct, are contrary to good faith and fair dealing and are unilaterally imposed by one trading partner on its counterparty. The European Commission has identified four key categories of UTPs:

- 1. one party should not unduly or unfairly shift its own costs or entrepreneurial risks to the other party;*
- 2. one party should not ask the other party for advantages or benefits of any kind without performing a service related to the advantage or benefit asked;*
- 3. one party should not make unilateral and/or retroactive changes to a contract, unless the contract specifically allows for it under fair conditions;*
- 4. there should be no unfair termination of a contractual relationship or unjustified threat of termination of a contractual relationship.” (EC 2016, p. 2).*

Within the food supply chain, UTPs are challenging for several reasons. Firstly, because of their commercial impact. The EC Inception Impact Assessment (2017) predicts that action to address UTPs could increase disposable farm income, make farming – particularly smaller operators – more attractive to investment, attract more newcomers to the farming profession, and boost rural employment and inclusive growth in rural areas (EC 2017a, p. 7-8).

The impact of UTP is difficult to quantify, in part because the impact data are not collected, either at MS or EU level. Lack of data is also part of the problem – information asymmetries are identified by the EC Inception Impact Assessment as contributing to farmers’ weak position in the supply chain (EC 2017a, p. 4).

In addition to the commercial impact, typically on smaller producers in the food supply chain, and the resulting social impact in terms of increased uncertainty in rural livelihoods, some UTPs can also generate food loss and waste. For example:

- The absence of a written contract, or unilateral imposition or modification of terms and conditions of a contract, can result in food waste where the buyer makes last minute changes or cancellations to volumes previously ordered. In the case of highly perishable produce, such as soft fruits or vegetables – which cannot be stored and must be processed within 24-48 hours from harvesting – it is particularly challenging, as suppliers have a very limited time to find other buyers.
- Even without unfair breaches or impositions of contracts, imbalanced bargaining power may result in food waste where suppliers aim for very high product availability (overproduction), in order not to run the risk of losing business. Where they cannot then find a market for this product, food waste may be the result.
- In their research with primary producers, exporters, importers and other supply chain intermediaries³, Colbert (2017) and Colbert and Stuart (2015)⁴ found that cosmetic specifications are being used to restrict market access when demand is lower than supply: when pre-arranged contractual supply to retailers does not match consumer demand the stringency of application of cosmetic standards is ramped up as part of a business response to the excess supply.
- Minimum life on receipt (MLoR) criteria have been used in a similar way, as an excuse to reject produce that the buyer has decided he cannot sell because of falling demand or inaccurate forecasting. Retail distribution and stock managers report applying MLoR criteria arbitrarily to respond to commercial drivers and bonus incentives when managing stock (GSC survey 2017).
- Since many commercial intermediators or agri-food processors do not take part in the production process, and are thus not aware on what happens upstream, they are likely to implement UTPs.

Thus, addressing UTPs has the potential to reduce both unfair commercial impacts on suppliers, and to address many different causes of food loss and waste and their resulting environmental impacts.

UTPs occur in the food supply chain because of significant power imbalances between different sides of the market, particularly between larger buyers, such as the major European retail corporations, and smaller suppliers, such as individual farmers, small cooperatives, or overseas suppliers. The concentration of the food retail sector varies across the EU (Figure 1), with traditional grocery markets still important in some MSs (e.g. Greece and Italy). Where retail markets are highly concentrated, the power imbalance between retailers and suppliers can result in the imposition of unfair conditions on players with low levels of power. The lack of an

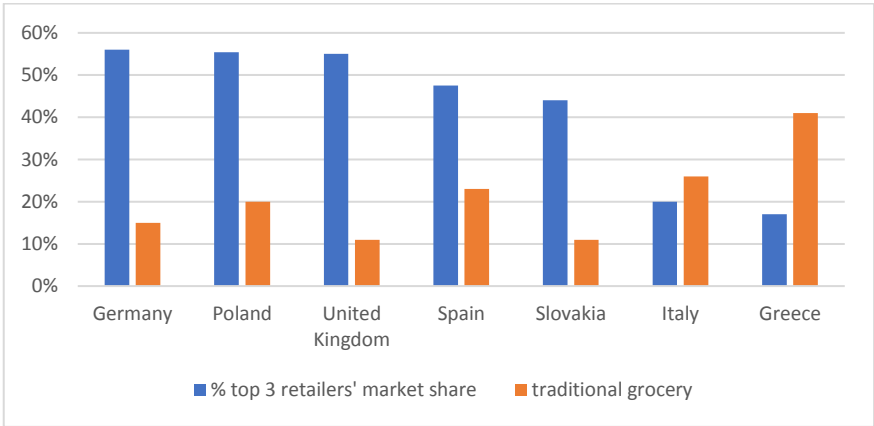
³ Colbert's research is based on survey data from 141 UK-based supply chain stakeholders (including primary producers, produce inspectors, insurers, academics, importers, exporters and others), and semi-structured face-to-face or phone interviews with 70 of these. Thirty-four (34) Peruvian and Senegalese primary producers, and two producer associations were visited and participated in semi-structured interviews. Twelve (12) formal interviews were conducted in the fresh produce area of a major European port, all of whom requested the name of the port or even country would not be disclosed. Information was also provided by 10 South African primary producers. See Colbert (2017, p. 9) Methodology Section for more details.

⁴ Colbert and Stuart (2014) carried out primary research in Kenya: 21 interviews were conducted, of which ten were with farmers, two with day labourers, and nine with exporters. More detail on p. 8 of the report.

inhibiting, trans-national regulatory framework, or of an adequate system of investigation and redress at the MS level, allows these drivers to result in continual and high levels of UTPs across multiple different areas of the food supply chain.

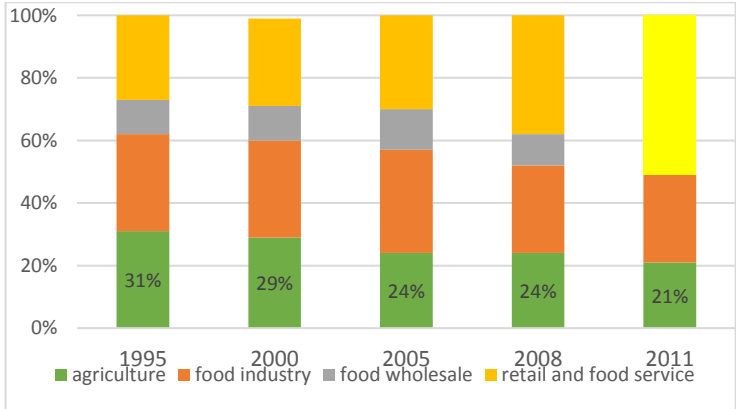
As a reflection of this weak position of farmers, the long-term trend in the distribution of value-added in the European food chain since 1995 has been a steady decline in their share (Figure 2) relative to other players⁵. The interpretation of this trend is complex, and includes changes in CAP payments, and a general shift towards a greater share of higher added value food products (e.g., pre-prepared/convenience foods). However, over this period, greater market concentration has also occurred within the retail sector, with most European food purchased by 110 retailer buying desks from approximately three million farmers⁶ (see Figure 3).

Figure 1. Overall profile of market concentration across selected EU MSs.



Source: Analysis for Refresh WP3, Planet Retail, European Commission 2014.

Figure 2. Distribution of value-added in the EU food supply chain (1995–2011⁷).



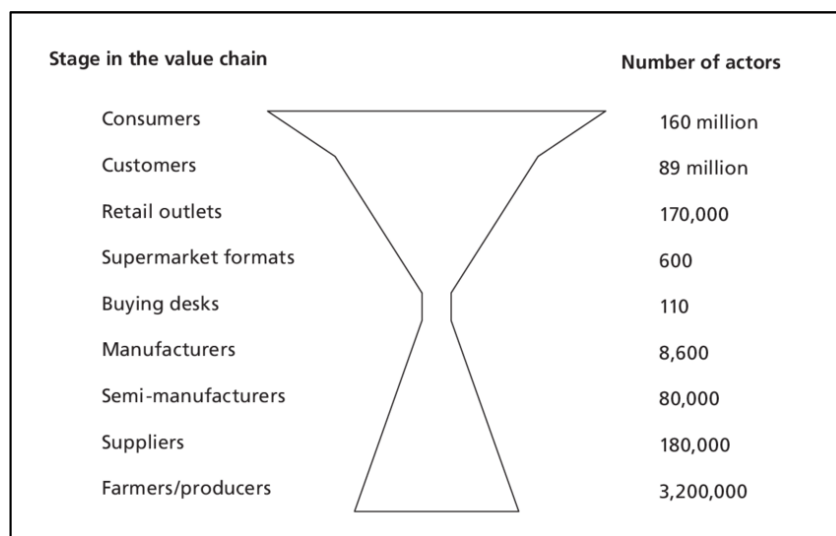
Source: Derived from European Commission 'A better functioning food supply chain in Europe' 2009, Commissioner Hogan response to European Parliamentary question, February 27th, 2015.

⁵ Report of the Agricultural Markets Task Force (2016).

⁶ Wageningen (2012, p 116).

⁷ For 2011, the value-added of "food wholesale" and "retail and food services" is summed up together.

Figure 3. The supply-chain funnel in Europe.



Source: UNIDO, Humphrey and Memedovic 2006, *Global Value Chains in the Agrifood Sector* (original source and data from a presentation dated 2002)⁸.

The EU has been discussing UTPs and responses to them since 2009 (EC 2017a, p. 2), and is currently working on a full impact assessment of future initiatives to improve the functioning of the EU's food chain, due to be published in the first quarter of 2018. A public consultation that ran from August to November 2017 found that 90% of respondents agreed or partially agreed that UTPs exist, citing examples that related to late payment periods and unilateral and retroactive changes to contracts⁹.

One challenge with the regulation and prevention UTPs is that, as the European Parliament's 2016 resolution states, "unfairness' in the food supply chain is difficult to translate into infringement of current competition law" (European Parliament 2016b). One of the causes of UTPs is, thus, the absence of effective legislative control, stemming in part from differences in definition and responses at national level, and in part from the unique nature of the food supply chain (Stefanelli and Marsden 2012, p. 1).

4.1.1 UTPs identified as food waste drivers in REFRESH systems maps

Evidence in the form of site visits and interviews were collected as part of the "bottom-up" approach to mapping food waste drivers within food supply chains (Burgos et al. 2017). This exercise was carried out for a selection of food products' supply chains from the UK, France, Germany, Sweden and Italy. These included products

⁸ Grievink, J.-W., "The Changing Face of the Global Food Industry", presentation made at the OECD Conference, The Hague, 6 February 2003, available at http://ernaehrungsdenkwerkstatt.de/fileadmin/user_upload/EDWText/TextElemente/Handel/OECD_Food_Trade_Business_Trends-GrievinkPPT.pdf [Accessed 19.12.2017].

⁹ European Commission, "Strong majority of stakeholders back European Union action to support farmers in food chain", available at https://ec.europa.eu/info/news/strong-majority-stakeholders-back-european-union-action-support-farmers-food-chain_en [Accessed 08.02.2018].

of different levels of complexity (potatoes, bread, dairy, processed meat/poultry, and pre-cooked meals). The analysis confirmed the view that:

- UTPs are linked to more perishable, shorter shelf-life products;
- Examples of food waste drivers relating to possible retailer/producer UTPs within the systems mapping driver classification are: last minute changes to orders, use of quality specifications to artificially reduce agreed orders on quality grounds;
- UTPs are linked to and sometimes caused by poor sharing of information/demand forecasting, and to the phenomenon of demand amplification.

Table 2. Systems mapping: identification of drivers with possible links to UTPs.

Food product category	Examples of whole supply chain drivers linked to retail-producer interactions
Bread (DE, FR, UK)	Retail/bakery take-back rules in Germany may require bakery to be responsible for unsold product, including cost of disposal MLoR criteria (% of date life) for industrial bread set very high in UK compared with France & Germany
Dairy (milk) (SE, UK)	MLoR criteria set by retailers: inefficient 'top-up' batches needed to maintain record of order fulfilment in-full & on time
Potatoes/tomatoes (FR, IT, SE, UK)	Includes both traditional and modern retail uses: "industrial tomatoes" may demand higher specifications than those sent as fresh product to retail due to the requirements of highly automated processing equipment; "flexing" of quality spec to manage surplus when high yields, farmers do not get agreed price for all product that meets spec.
Prepared meals (sandwiches) (UK)	Late cancellation/changes to orders may result in loss of ingredients already prepared to meet original order
Processed meat/poultry (IT, UK)	Retailer quality specifications too stringent: economic loss to down-grade markets; risk of unpredictable seasonal meat/poultry products not shared between retailer and producer, "demand amplification" in advance of predicted demand peaks (e.g. barbecue meat cuts in summer)

Source: Authors' own elaboration based on D3.1 "Systems maps and analytical framework".

Overall it was found that more perishable products were more often wasted within the supply chain, because of supply and demand imbalances and poor information sharing and the limited scope for finding alternate markets as a consequence of perishability and short life. Indeed, the mapping exercise confirmed that the supply and demand imbalance is an important food waste driver in the food supply chain. However, the factors behind this imbalance that were recorded by the assessment were complex, and included forecasting errors, over-optimistic projections for increased product demand, associated with retail promotional offers. Forecasting practices were reported to be often too complex, and to fail in linking directly to

consumer sales, production scheduling and farmers. With poor information sharing and erratic peaks and troughs in demand, a small increase in the forecast demand at the retail stage can result in 'demand amplification' further back in the supply chain as competing suppliers of the same product amplify the real demand. This phenomenon results in rapid food surplus and waste and is symptomatic of poor process integration and information across supply chain members. The costs of the resulting surplus fall on suppliers, rather than on retailers.

The following of this chapter compares the regulatory approaches to UTPs adopted by the UK and Italy, respectively. These two EU MS provide contrasting food supply chain market structures, as well as different legal system/traditions, based on common and civil law, respectively. Hence, it can be expected that the way to address UTPs has taken different pathways.

4.2 Unfair trading practices in the UK

The first case study is concerned with the UK's policy response to the problem of UTPs, and the linkage of such practices to food waste; therefore, some examination of the UK stakeholders, market structure and the overall context of UTPs in relation to the food supply chain is relevant.

4.2.1 The food supply chain and food waste in the UK

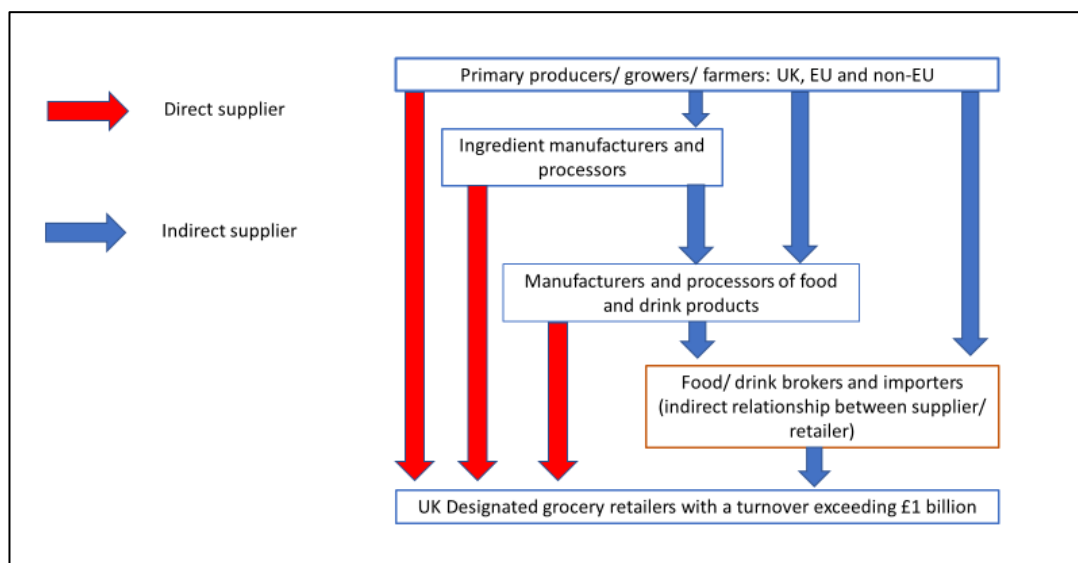
The food and drink supply chain involves a multitude of different stakeholders depending on the product type, the nature of its processing, the range of ingredients used, and the role of any intermediaries across different supply chain stages. **Error! Reference source not found.** provides an overview of the main interactions, making the distinction between direct and indirect relationships that exist between suppliers and retailers.

The main stakeholders can be defined by supply chain stage and sector. At the base of the supply chain, the farmers include those supplying the UK grocery sector from within the UK, from other EU Member States, and from the wider world. Based on the farm-gate value of unprocessed food, in 2015 52% of the food consumed in the UK was supplied by UK-based producers; 29% was sourced from other EU MSs, with Africa, Asia, North and South America each supplying a 4% share (Defra 2017). Farmers in England and Wales are represented by the National Farmers Union (NFU), with more than 55,000 farmer members. NFU Scotland and Ulster FU represent farmers in the rest of the UK. The NFU carries out surveys amongst its members, including on issues such as UTPs. These surveys found that one in seven members of the NFU is facing UTPs.

"The NFU will continue to work for British farmers on unfair trading practices and will push for the culture change so badly needed in the food supply chain." (NFU President, Politico Agriculture and Food Summit 2017)

The NFU was instrumental in lobbying for change within the UK on UTP issues and supports a strengthening of the existing measures to tackle UTPs.

Figure 4. Direct and indirect suppliers within grocery supply chain.



Source: Authors' own elaboration.

The Food and Drink Federation and the British Retail Consortium are the trade bodies for the food and drink manufacturers and for the retailers respectively. The BRC's views on UTPs reflect those of their membership and were stated in evidence submitted to the EC's consultation on the Green Paper on UTPs in 2013:

"the ultimate interest of consumers should be the priority of policy makers and that 'hard bargaining' is not itself unfair and ultimately good for consumers and good for supply chain innovation" (BRC 2013).

About two thirds of UK's agricultural produce is bought by members of the Food and Drink Federation, that represents the food and drink manufacturing sector and includes 6,815 food businesses employing 400,000 people. On behalf of their membership, they support firm action on UTP's in the UK in relation to the supply of products to the retail sector.

The Competition and Markets Authority is the UK's economy-wide competition authority, formed after the merger of the Competition Commission and the Office of Fair Trading in 2014. It is an independent non-ministerial department with offices across the UK with responsibility for investigation of anti-competitive practices, conduct of market studies where there may be competition issues. Its powers are supported by legislation under the Enterprise Act 2002, including the power to investigate individual businesses to determine whether they have breached UK or EU prohibitions against anti-competitive agreements and abuse of a dominant position under the Competition Act 1998, which is the UK's legislation that harmonises with EU competition policy (CMA Guidance, 15th July 2013).

The two government departments with the most involvement with food and food supply issues are the Department of Environment, Food and Rural Affairs (Defra) and Department for Business, Energy and Industrial Strategy (BEIS). Defra's remit includes the UK Government's policy on food and agriculture and is a relatively small

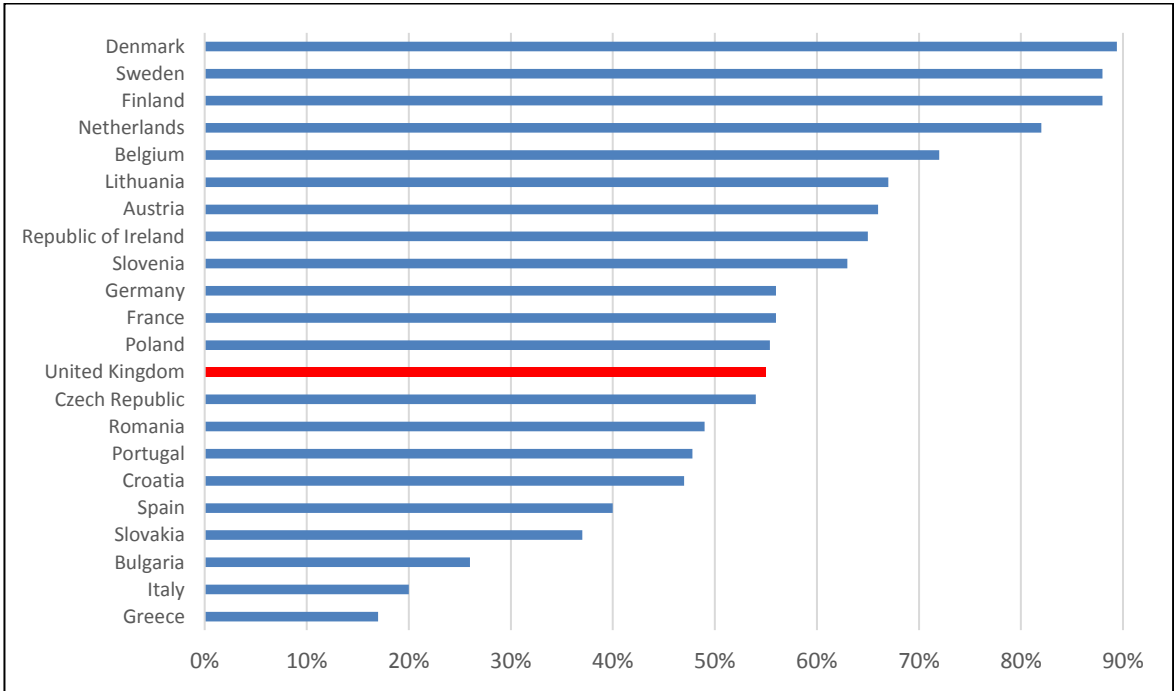
spending department (GBP 3.1bn in 2016/17). BEIS’s remit includes the development and delivery of a comprehensive industrial strategy and leading the government’s relationship with business. In the recently published Industrial Strategy White Paper, it was announced the creation of a Food and Drink Sector Council to support the industry’s supply chain.

UK market situation

The UK has a high degree of market concentration with the “top 4” retailers holding 70% of the market by turnover and the “top 3”, 55% (Figure 5). The largest grocery retailers in the UK are Asda, Morrisons, Sainsbury’s and Tesco, with the remaining market largely occupied by “discount” supermarkets, such as Lidl and Aldi, as well as smaller supermarkets such as The Cooperative and Waitrose (Kantar 2017). This market concentration has led to retailers wielding significant power over the market and their suppliers. The NFU, among others, has detailed some UTPs that are a by-product of this imbalance in market power, including a lack of notice of a price change, unreasonable notice of specification changes, and unreasonable contract terms (NFU 2017).

The food supply chain of the UK is also highly globalised. Therefore, it is critical to include foreign suppliers in the analysis of the impacts on food waste of UK actors’ UTPs. The UK imports 63.5% of the domestic fresh fruit and vegetable consumption, comprising 54% of vegetables and 17% of total fruit consumption. Imports from outside the EU have growth, partly reflecting the sourcing of non-native foods, such as pineapples, melons and avocados. Hence, by volume of produce sold, most actors are excluded by focusing only on UK-based suppliers.

Figure 5. “Top 3” retailers: market share (%) by turnover.



Source: Various sources, including Euromonitor, Retail Planet and Kantar, mainly 2012-2015 data.

Farm level in the food supply chain

Global supply

Feedback, a UK organisation which works to address the causes of food waste, has developed a portfolio of evidence on the role of UTPs in generating food waste. While several other UK organisations have examined the role of UTPs in damaging small farmers' interests, both in the UK and overseas, Feedback is one of the few organisations to directly research market practices in the groceries market as a cause of waste. Looking at the direct global supply chain into the UK, Feedback's investigations (2015 and 2017) have established a conclusive link between UTPs and food waste in the production sector, due to last minute alteration or cancellation of orders, unpredictable fluctuations in demand, and buyer requirements for producers to guarantee production volumes, leading to overproduction to guarantee producers can meet their orders.

"We, as farmers, have gone through this challenge before where the exporter comes to us and tells us that the market across has cancelled the orders. By that time, you have harvested, and what happens therefore is that we have much of our produce left behind and, yet, we have already had losses in terms of operational costs. When an order is cancelled we have a problem as a family. I have children in school who are depending on this money, who are being sent home for fees. They come here crying and by that time I'm helpless because the order has been cancelled, my produce is with me, I have casual labour, I have people in the family, and other obligations. Once in a while I borrow money from financial institutions – they are also on my neck... I'm subjected to all of this just because of an order cancellation that is not my fault." (Quote from a Kenyan mango farmer, in Feedback 2015, p. 16).

Feedback (2015) found that on average 30% of produce was being rejected at farm-level in the Kenyan horticultural exports sector.

UK-based farmers

Qualitative research with farmers in the UK found that a range of supermarket practices impact on food waste at farm level, including order cancellations, poor communication, inaccurate forecasting by retailers, and inconsistent application of cosmetic standards governing how food must look to be accepted by supermarket buyers (Feedback 2018). UTPs are exacerbated by a climate of "fear" due to the power imbalances between suppliers and retailers. Feedback's (2017) report into supply chains included interviews with insurers working with suppliers to major retailers. The following quote with one insurer crystallises the issue of the climate of fear:

"The reason we are not giving you any names is [because of] a climate of fear that, absolutely, permeates the industry. In fact, the clients that we asked to take part in your research are so worried about repercussions that they have not only refused, but pushed back against us taking part in the research. Unfair trading by supermarkets affects us too, of course. As an insurance company, we are expected by clients to defend their interests. However, we do not issue claims and challenges when we believe food

is rejected unfairly, because our clients fear being delisted or losing business and instruct us not to claim. This in turn damages our relationship with clients, who simultaneously are reluctant to challenge behaviour and, conversely, are asking us as insurers 'what do I pay you for if you can't pay out for losses on cargo?'. We are stuck in the middle, managing relationships within a completely broken market."

When produce does not meet cosmetic standards, but global supply is low, or demand is high, supermarkets are reported to become more flexible with their out-grading and rejections, so that rejections show a seasonal cycle. The inconsistent application of cosmetic specifications was a phenomenon also found in Feedback's (2017) research into international supply chains, with a European fresh produce insurer also saying:

"It's evident that supermarkets reject food when they have under-sold a product - this is well-known behaviour within the sector. And at times of year, when they need the stock, they will be less scrupulous and reject less. This is totally inconsistent and, as we know from inspections, not related to the quality of the product itself. We know it is to do with supply and demand."

A Peruvian onion producer to UK retailers noted the same concern: "If prices are high then the market will take anything. If they are low due to oversupply, then cosmetics are enforced."

Feedback's findings are consistent with the view of the NFU. In testimony to Parliamentary committees, similar views were expressed. Lord Whitty (2013) states:

"Although it (GCA) does not explicitly deal with waste, it does deal with the nature of the contract, which seems to transfer the risk—this would be the NFU's view—back down the supply chain rather heavily. If you over-specify or if there are too many changes, either in quality control or in volume, effectively the risk is taken by the farmer."¹⁰

4.2.2 Overview of the policy: the Groceries Supply Code of Practice

The policy intervention in response to UTPs that this case study will consider is the establishment in the UK of the **Groceries Supply Code of Practice** (GSCOP), and the **monitoring body**, the **Groceries Code Adjudicator**, as an evolution from an earlier voluntary approach called the UK Supermarket Code of Practice (SCOP).

The SCOP was first drawn up in 2001 by the Office of Fair Trading (OFT – now part of the Competitions and Market Authorities (CMA), to address concerns identified by the UK Competition Commission (also now part of the CMA) in relation to the behaviour of five grocery retailers towards their suppliers. In overseeing compliance with the SCOP, the OFT continued to receive complaints about competition matters

¹⁰ <https://www.parliament.uk/documents/lords-committees/eu-sub-com-d/food-waste-prevention/food-waste-evidence-volume.pdf> [Accessed 06.02.2018].

and the effectiveness of the voluntary SCOP. In 2005, in response to these complaints, the OFT commissioned a compliance audit, which ultimately, after representations by NGOs and other industry bodies in the UK, resulted in the referral to the Competition Commission for a full investigation. The **2008 investigation** led to the recommendation that a mandatory code be established, the GSCOP, and to seek undertakings from retailers to establish an ombudsman. If retailers did not commit to an ombudsman, the Competition Commission recommended that the government step in to establish an ombudsman, and to provide it with powers to levy financial penalties. However, this code proved to be insufficient to combat UTPs in the UK market, with many suppliers continuing to report problems in their relationships with retailers.

The Competition Commission identified two principal areas of concern. The first was around the **strong position of some retailers** in local markets, and barriers to entry for new or competing retailers. The second one concerned “the **transfer of excessive risk** and unexpected costs by grocery retailers to their suppliers through various supply chain practices” which “if unchecked, are expected to have a detrimental effect on consumers through, in large part, poorer-quality products and less product innovation” (Competition Commission 2008, p. 176).

The Commission first proposed a strengthened Code of Practice, with an independent ombudsman, then in 2009 recommended that this ombudsman should be established on a statutory basis, due to the failure to reach agreement with supermarkets on a voluntary process of implementation.

In 2010, a new government published a draft bill to “proactively enforce the Grocery Supply Code of Practice and curb abuses of power.” The Groceries Code Adjudicator Act was passed in 2013, and the Grocery Code Adjudicator (GCA) began life on 24 June 2013, presided over by Christine Tacon as the Adjudicator in relation to the application of the GSCOP to the ten largest UK grocery retailers (Seely 2015).

The GCA monitors, encourages compliance with and enforces the Code, including the following range of supply chain practices: making payments on time; no variations to supply agreements without notice; compensation payments for forecasting errors; no charges for shrinkage or wastage; restrictions on listing fees, marketing costs and delisting. However, it does not cover price setting, food safety, or labelling issues (GCA, June 2014).

Most significantly, GSCOP defines supplier as “*any person carrying on (or actively seeking to carry on) a business in the direct supply to any retailer of groceries for resale in the UK and includes any such person established anywhere in the world.*” The Code therefore only applies to direct supplier-retailer transactions (Figure 4) and not those that involve intermediaries, but does extend to direct suppliers outside of the UK. The GCA cannot adjudicate on individual complaints from suppliers, but it can launch investigations into practices raised by suppliers.

One such investigation was into Tesco plc, after the retailer revealed a profit overstatement of EUR 283 million (GBP 250 million) in September 2014. The adjudicator found that Tesco had unreasonably delayed payments to suppliers, often for prolonged periods of time, and made five recommendations to improve practices (GCA, January 2016). The NFU cautiously welcomed the GCA’s response, whilst urging prompt action to comply on behalf of Tesco and urging the extension of the GCA’s

remit to cover indirect suppliers (NFU, 26 January 2016). Other observers, including Feedback and other members of the GCA Network, have repeatedly called for the remit of the Adjudicator to be extended, in order to cover indirect suppliers. In evidence submitted to a food waste enquiry in 2016 by the parliamentary select committee on Environment, Food and Rural Affairs (EFRA), Feedback argued:

"The GCA has been effective in reducing the prevalence of UTPs between retailers and their direct suppliers, yet 62% of suppliers still say they experience issues with UTPs. Since the GCA is limited to regulating the relationship between retailers and their direct (first-tier) suppliers, indirect suppliers are not protected, despite experiencing UTPs. Direct suppliers are fearful of raising complaints with the GCA in case of persecution by their retail clients, and so transfer the risk and cost of UTPs up the chain." (Feedback 2016).

Supplier attitudes

Each year the GCA publishes the results of a supplier survey, which reveals shifts and trends in perceptions of the occurrence of UTPs, adherence to the code and the impacts of the adjudicators work.

2014 survey

The inaugural survey found that, of those suppliers surveyed, awareness of and familiarity with the Code varied widely, with 49% of direct suppliers "quite familiar" with the Code, compared to 33% of indirect suppliers. Regarding the impact of the Code and the GCA, only 19% of direct suppliers felt that retailer practice had improved, with 14% of direct suppliers and 27% of indirect suppliers feeling practice has worsened. One implication could be that in complying with the Code for the direct suppliers, retailers bore down more harshly on their indirect suppliers who remained unprotected by the Adjudicator. Four out of five suppliers had had a Code related issue, with half unsure whether they would raise an issue with the GCA.

2015 survey

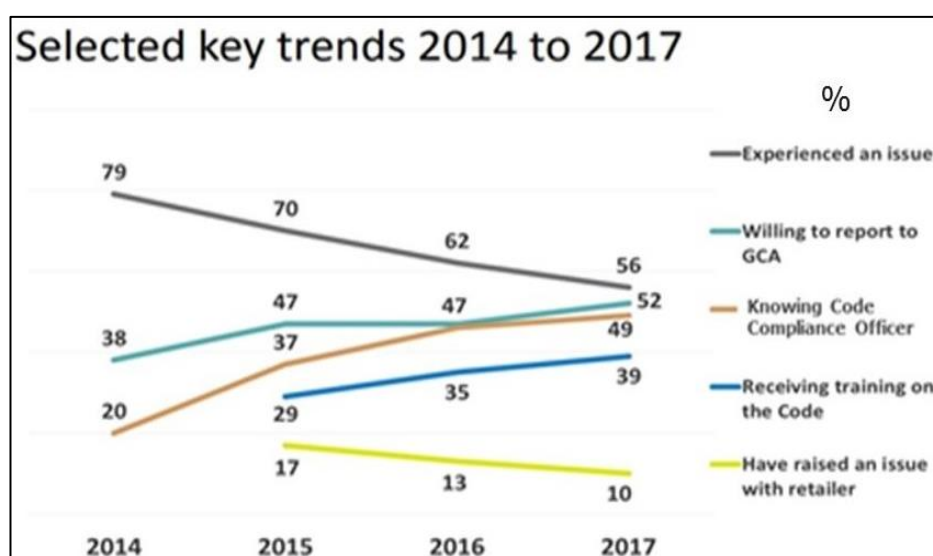
In 2015 the number of respondents to the survey doubled, with the extra responses mainly coming from direct suppliers. Code understanding was roughly the same, with small and micro suppliers the least likely to have a good understanding of the Code. The percentage of direct suppliers who would consider raising an issue with the GCA increased from 38% to 47%. Those who would not raise an issue with the GCA said this was mainly because they feared retribution from retailers or they didn't think the GCA would be able to do anything. The main success factors suppliers identified were an increasingly collaborative culture between retailers and suppliers, meaning it was easier to raise issues with retailers directly. The higher percentage than in 2014 who said they would consider raising an issue with the GCA is an indicator that trust was increasing in the institution and process.

2016 survey

The 2016 survey broadly found increasing levels of awareness and understanding of the Code and the GCA's remit across suppliers, with a jump in both good understanding of the Code and good understanding of the GCA's role and responsibilities

(up 7%). For example, there was a rise in the number of direct suppliers that undertook training in the Code (29% to 35%) – following a GCA campaign urging suppliers to “get trained”, as well as a strong preference among suppliers for online training tutorials. Suppliers also reported an increase in knowledge about how to contact the Code Compliance Officers at each retailer. There was a fall in the number of direct suppliers saying they have raised an issue with a retailer in the past 12 months (17% to 13%) and a further fall in the number of suppliers saying they had experienced an issue in the past year, down to 62% (from 79% in 2014). One area of disappointment for the Adjudicator was no change in the proportion of suppliers prepared to bring information to the GCA (GCA, 27 June 2016).

Figure 6. GCA Survey Key Trends 2014- 2017.



Source: Adapted from Groceries Code Adjudicator annual report, 2017.

2017 survey

The positive trends in increased awareness of the Code and the GCA continued in 2017, and awareness among suppliers outside the UK also grew. However, fear of retribution remained a factor, with nearly half (47%) of suppliers saying it would prevent them raising an issue. One supplier noted the aspect of retailer practice with the most negative effect as: “Forecasting of stock – huge swings in demanded volumes and little, if any, responsibility from the retailer for the excess stock left behind” (YouGov 2017).

In summarising the overall findings of the 2017 survey, the GCA highlighted two related areas that had now overtaken delayed payment as the biggest UTP issue for suppliers, both with significant implications for food waste:

- 1 Forecasting errors and retailers taking insufficient responsibility for forecasts after they had been set, resulting in last minute changes to orders.
- 2 Promotional offers being run with one supplier resulting in significant changes to orders to another supplier, without that supplier being given reasonable notice.

In relation to the first point the Code Adjudicator Christine Tacon commented: “One supplier’s comments really stood out. It was that if the retailers only knew just how

much waste their forecasting was generating, they would surely do something about it.”

Summary of the surveys

These yearly surveys show broadly positive trends in rising awareness and compliance, and growing trust from suppliers in the GCA. However, several bottlenecks remain. The first one is the continued exclusion of indirect suppliers from the GCA’s remit. The fact remains that 56% of the suppliers interviewed are still reporting issues with retailers breaking the Code four years after the establishment of the GCA. During 2016/2017, the GCA did not receive any dispute referrals, no investigations were carried out and no new enforcement measures were used.

4.2.3 Analysis of the policy and challenges

Investment and impacts

In 2011, an impact assessment of the establishment of the GCA carried out by BEIS estimated that the transition costs of setting up the new body would be EUR 0.22m (GBP 0.2m), and that the operational costs would be EUR 0.9m (GBP 0.8m) per annum (BEIS 2011, p. 2).

Institutional Costs of the GCA

The ongoing costs are funded by BEIS, who then recoups 100% of the costs via a retrospective levy on the 10 supermarkets which are regulated. The calculation of the levy takes consideration of whether a retailer had been found to have breached the code that year, and therefore caused additional work for the GCA. Unspent levy at the end of each financial year is returned to the regulated retailers in the proportions in which it was contributed. The overall funding is constrained by government setting the level of levy.

Cost to retailers

The amount that the GCA costs the retailers varies depending on the investigations undertaken. For example, the GCA’s expenditure for 2016/17 was EUR 705,1264 (GBP 622,024) which decreased from EUR 2,027,188 (GBP 1,785,741) in 2015/16 as no investigation was opened. However, the levy was set at EUR 2,269,997 (GBP 2,000,000) from the regulated retailers, which was an increase from 2015/16 of EUR 1,021,498 (GBP 900,000). This increase was to provide sufficient funding to resource any future investigation and is based on the experience of running an investigation.

Staffing Levels

The GCA office is run by around seven staff, several of which work part time, including the adjudicator herself. If an investigation is launched or extra resources are required, additional staff are brought in.

In addition to paying the levy, each retailer appoints its own Code Compliance Officer. These are the main point of interaction between the retailer and the GCA and are trained staff responsible for ensuring GSCOP compliance of their businesses.

Additional fines

On the 6th April 2015, the GCA was granted fining powers to a maximum of 1% of the relevant retailer's UK turnover. This provided a strong financial disincentive for retailers to breach the code beyond reputational damage if they were found to be in breach of the code. The fines are calculated according to a five-step approach which considers several factors:

- the seriousness of the infringement;
- turnover in the UK;
- the duration of the infringement;
- any aggravating factors, such as the existence of intentional and repeated breaches or failures to comply with recommendations;
- any mitigating factors, such as cooperation with the investigation or time taken to remedy the breach;
- desired deterrent effect; and
- proportionality (Stefanelli 2014).

Economic, social and environmental impacts in the UK

As the GCA survey is currently the only way in which the impact of the GCA is measured, it is difficult to accurately assess the impact of the intervention. Moreover, the costs of UTPs in general are very difficult to quantify, as most instances are unreported (see evidence above from insurers) and can range from financial losses and lower margins to financial failure of businesses. Insurance claims would be the most tangible way of measuring costs incurred, but as produce insurer stated in an interview with Feedback (2017) "we are operating in a completely broken market". Food waste could potentially be used as a proxy measure, with economic value extrapolated from tonnage, but the current EU definition of food waste does not include farm level waste and is not measured in any systematic way.

Wider social impacts have not been evaluated, but would primarily relate to lower supplier incomes particularly felt in the agricultural sector.

The environmental impacts of food waste are well established, and systematically reducing food waste in the supply chain by tackling UTPs could be a very effective way of tackling food waste. However, as there is no systematic measurement of food waste within the supply chain, nor of the drivers and causes of waste, drawing conclusions as to the environmental impacts is not possible. Increased measurement and transparency would be one way to achieve this goal and are much needed.

Coherence and synergy with other national level policies and EU policies

The development of a regulatory approach to UTPs through the establishment of the GCA in the UK is consistent with existing legislation that deals with restrictive business practices and the abuse of market dominance under the Competition Act 1998. This Act harmonises EU competition policy across the single market (Article 85 and 86 of the Treaty establishing the European Community) and, amongst other features, confers powers to investigate individual businesses to determine whether they

have breached prohibitions against anti-competitive agreements and abuse of a dominant position. The UK policy response to UTPs, and possible future extension to indirect suppliers, therefore has a high level of coherence and synergy with existing UK and EU policies addressing issues of market competition and restrictive business practices.

The development and strengthening of existing policies on UTPs has implications for other policy areas both at the national and at the EU levels. In the wider context of policies aimed directly at addressing food waste, there are synergies between UTP policy development and the effectiveness of supply chain VAs. A backdrop of poor trading practices operating along the supply chain, and particularly with respect to primary producers' interaction with retailers, will reduce the effectiveness of VAs. These policies are therefore complementary to one another.

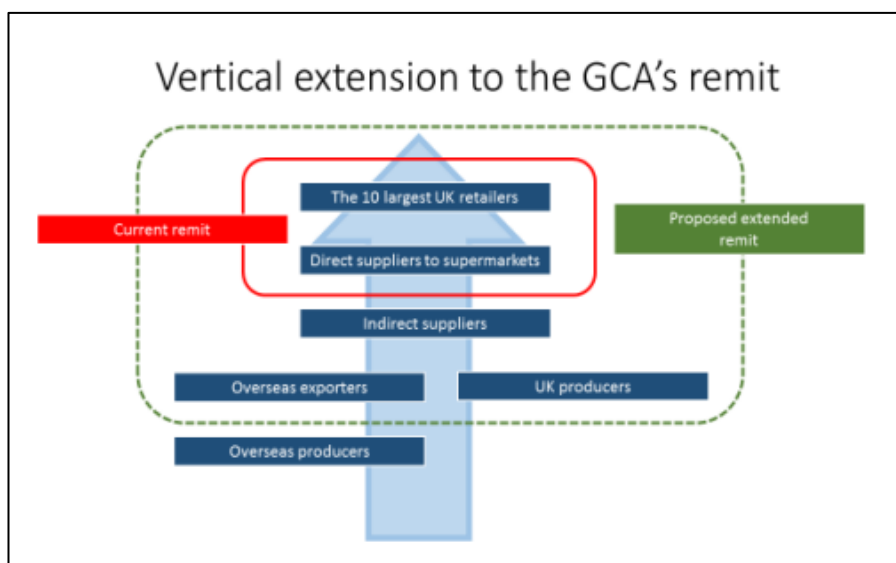
Key possible unintended consequences of a more regulated approach towards UTPs and development of a common set of rules across the EU would be:

- If enforcement is weaker in some MSs than others, this could result in a shift in production to more weakly-enforcing MSs.
- There is a risk that more regulatory approach may "crowd out" less formal approaches to dealing with UTPs, reducing the good will that exists within supply chains that are currently less prone to UTPs (Fałkowski et al. 2017)

Main challenges in designing and implementing the intervention

There are several ongoing challenges to the GCA which limit its effectiveness: re-sourcing, scope, lack of awareness of the GCA and the ongoing climate of fear within the industry.

Figure 7. Proposed Vertical Extension to the GCA's remit.



Source: Groceries Code Action Network (2017), <http://www.traidcraft.co.uk/media.ashx/strawman-proposal-on-extending-the-gca.pdf> [Accessed 09.02.2018].

Resourcing and staffing

Although a higher levy could be imposed to provide a better-resourced GCA, this is currently only funding a small team and a part-time GCA. A higher levy would be justified to fund an extension to the remit of the GCA to cover indirect as well as direct suppliers. The GCA currently relies on evidence being brought to her before an investigation is launched, which places the burden of supplying evidence on suppliers coming forwards, or findings from external research, which can be limited in scope as funding needs to be sought elsewhere. Direct suppliers from other countries have a lower awareness of the code and therefore don't know their rights. Even if they were aware, there can be language barriers and practical issues which mean they are at a disadvantage in submitting evidence to the GCA, which currently does not have the resources to provide adequate outreach to overseas suppliers and may thus be missing out on pieces of evidence that may warrant investigation.

Indirect suppliers

The GCA only protects direct suppliers, meaning that indirect suppliers that may be the target of UTPs are currently not protected by the code. Therefore, there have been a wide range of stakeholders who have called for the code to be extended to **protect indirect suppliers**. Supporters of this measure include politicians such as Julian Sturdy MP (Sturdy 2017) and the GCA Action Network, whose members include Traidcraft and the NFU (Sustain 2017). Figure 7 outlines the proposed extension and who would be covered by the code. A consultation exercise on extending the code has been undertaken by BEIS (Department for Business, Energy and Industrial Strategy 2016), to which the government has responded by deciding not to extend the remit of the GCA to indirect suppliers, largely on grounds of cost (HM Government 2018). Instead, relatively minor changes have been brought forward, including the extension of the code to smaller retailers and making written contracts in the dairy sector compulsory. The latter measure uses a discretionary power to make it obligatory for written contracts to be applied between milk producers and processors under the EU CMO Regulation (1308/2013).

Factors of success and key learnings

Legislative change in relation to UTPs may be more effective than VAs, depending on the starting point in an individual MS. In the UK, the legislative approach became effective once the capacity to impose additional fines had received political backing.

4.3 Unfair trading practices in Italy

4.3.1 The food supply chain and food waste in Italy

In Italy, the **retail sector** presents a **lower market concentration** compared to Western European countries, despite being characterized by a fragmented supply. The share of shops employing one to nine persons (99.2% in 2010), as well as the share of self-employees (48.1%) are the highest in the EU, and the penetration of private labels (17%) the lowest. Therefore, the power of big chains is less an issue compared to EU countries like, e.g., the UK, France or Germany. Meanwhile, the contribution of the retail sector to the GDP is close to the EU average (4.1%). However,

a **relative consolidation** has been taking place **in the last 15 years**: the number of shops employing one person has decreased and the share of food sales carried out by large retail distributors (GDO) reached 72% in 2010 (OECD 2013).

Buyer power is further strengthened by two dynamics: the creation of **super-alliances** among retail chains (in 2010 the top seven chains accounted for 78% of the GDO sales), and the **high concentration at local level** (the largest retailers may represent up to 60% of the GDO sales in a Province, with only two super-alliances accounting for 70-80% in some areas) (Ibid, p. 246). In Italy competition is price-based, hence these non-structural forms of cooperation affect horizontal price competition, generating price uniformity. This represents a challenge especially in times of economic crisis and when food is concerned, because imperfect competition damages primarily vulnerable consumers.

On the other hand, the share of producers who join a producer organisation is small (less than 30% for fruits and vegetables); their bargaining power is, thus, limited. Some surveys found that the supply chain of fruits and vegetables has a very complex structure, due to product differentiation, an **atomistic and fragmented production**, and the presence of several agents (intermediators) at different stages. Thus, distributors must rely on intermediaries, which results in an increase in consumer prices (compared to producer prices) by 70% to 300% (Ibid). According to Palladino (2017), **primary producers** are the **most vulnerable** actors of the supply chain, due to their failure to associate, and poor organisational and programming ability. Although the geographical (Province) location of the farm is not an issue, lack of organisation is more common in the South of Italy.

Producer associations can help overcome fragmentation. In Italy, **cooperatives** account for 32% of the total agricultural production, and for 23% of the processing industry's sales. However, among the top 50 agri-food firms, which represent 37% of agri-food production, only seven are cooperatives, accounting for 6%. In 2015, in Italy, there were 10,645 cooperatives: 72% of producers, 16% of manufacturers, and 11% of retailers. Most of them (61%) are in the South, but their incidence on the total production is much higher in the **North**, where the cooperation model is more advanced. Those associated with the main national organisations were 6,322, accounting for 83% of the value of the national production. On average, their economic size was 7.4 million Euros and they were employing 19 people (compared to 2.3 million and 6.6 employees in the average agri-food firm). Although only 46% of them were located in the North, these accounted for 82% of the value of production. Overall, 3,178 were micro-enterprises producing less than two million Euros, while 133 produced over 40 million. In 2015, the average number of members of a cooperative was 163, but it varied between 1,141 of olive oil producers, and 36 of meat producers (Agri Rete Service 2016). Such numbers show that, although cooperation reduces fragmentation, in Italy this is still an issue, especially in the **South**.

The European Court of Auditors (2016) recognised that trading practices and market structures can generate **food waste**. This happens in two ways: either through a disproportion of bargaining power between two parties, or through unfair practices taking place in the context of imbalanced power relations. Given the structure of the Italian agri-food sector described above, both phenomena are likely to happen. It is estimated that food losses and waste in Italy account to 8.8 million tons every year (CIHEAM and FAO 2016). At EU level, food losses and waste account for about 20%

of the overall food production (Stenmarck et al. 2016). An expert interviewed estimate that, in Italy, UTPs generate losses that account for between 5% and 10% of the primary production (Palladino 2017).

4.3.2 Overview of the policy: from art. 9 of law 192/1998 to art. 62 of law 27/2012

At the beginning of this century, UTPs were addressed by means of traditional **competition policy tools**. However, the legislation has evolved since then. Indeed, differently from the UK, Italy considers that, to prevent UTPs in the agri-food sector, additional regulations are needed beyond such tools. Italian policymakers adopted an approach mixing regulation and self-regulation among market agents (EC 2016).

Until 2001, the norm used to address UTPs in the agri-food supply chain was **art. 9** of the **law on industrial subcontracting** (192/1998), that introduced a prohibition of **abuse of economic dependence** for the first time in Italy. This is one of the most relevant UTPs. At EU level, it is perceived as a lack of effective deterrents and engagement, mainly toward SMEs and farmers (EC 2017a). In Italy, economic dependence is defined as an “excessive imbalance between the duties and obligations for the parties arising from the commercial relationship” (Renda et al. 2014, p. 51). Initially, only the parties of the subcontracting agreement could invoke the application of art. 9, which was achieved by means of an arbitration of the local Chamber of Commerce (*Camera di Commercio*). However, most of the Italian jurisprudence (including that of the Court of Cassation, *Corte di Cassazione*) extends the application of this norm beyond subcontracting, to include all cases of abuse of economic dependence in business-to-business contractual relationships.

Law 57/2001 further extended the applicability of art. 9, to protect overall market competition, in line with the legislation of other EU Member States. To do so, this law distinguished between “abuse of dominance” and “abuse of economic dependence”. Competence over the former was attributed to the **Italian National Competition Authority** (*Autorità Garante della Concorrenza e del Mercato, AGCM*). The AGCM is an administrative independent authority mainly responsible for introducing antitrust norms, established by law 287/1990 (Competition and fair-trading act). The AGCM has been endowed with additional powers by subsequent laws. Such powers include the repression of unfair commercial practices and misleading or unlawful comparative advertising, as well as the application of conflict of interest laws to the holders of government positions. Being an independent authority, the AGCM makes its decisions based on its establishing act, without any possibility for the Government to interfere¹¹.

According to law 57/2001, the AGCM can address the cases of **abuse of dominance** that affect a relevant market, but cannot sanction the infringer. Instead, the cases of **abuse of economic dependence**, which indicates a violation of “the parties’ general obligation to behave correctly and in good faith during the negotiation, conclusion and execution of a contract” (foreseen in the Italian Civil Code) is competence of ordinary courts (Renda et al. 2014, p. 51).

¹¹ <http://www.agcm.it/en/general-information/what-the-antitrust-authority-is.html> [Accessed 04.09.2017].

Table 3. UTPs forbidden by art. 62 and potential impact on food waste.

No.	Description	Food waste examples
1	Lack of clarity in the contract offer	NA (does not apply directly)
2	Lack of written contract	NA (does not apply directly)
3	Abuse of economic dependence	The price offered by the purchasers of a product could be so low that is cheaper for producers to waste it, rather than collecting/processing and selling it.
4	Liability disclaimers	Unbalanced liability, combined with low economic profits can generate complicate conditions and, thus, food losses.
5	Unilateral modification clauses	Agricultural products can be left unharvested due to order cancellations.
6	Terms unreasonably imposing or shifting risks	Agricultural production is subject to unpredictable factors, such as weather conditions; therefore, terms should allow flexibility, and provide a reasonable price. If terms do not consider unpredictable factors, stopping the production or wasting it can be more convenient than selling it.
7	Unfair use of confidential information	NA (does not apply directly)
8	Unfair use of confidential information after the contract expiry	NA (does not apply directly)
9	Unfair breaking of negotiations	Many products, like dairy, fruit and vegetables, etc., are highly perishable; unfair/unexpected contract termination might cause them to be wasted, since there is a very short time to find another purchaser.
10	Unfair contract termination	
11	Refusal to negotiate	

Source: Authors' own elaboration.

A series of prohibitions specifically applicable to business-to-business transactions in the agricultural and food sector was introduced by **art. 62** of law decree 1/2012 ("Urgent regulations for fair competition, infrastructure development, and competitiveness"), converted with amendments by **law 27/2012**. The stated goal of this norm, which entered into force on 24.10.2012, is to ensure a viable economic competition in the agri-food sector, but it may contribute (indirectly) to prevent or reduce food losses. Art. 62 incorporates, by referring to them when defining "due practices", the European Principles of Good Practices in the Food Supply Chain (Ibid). These include: the requirement of a written contract form, predictability, compliance, provision of information, confidentiality, responsibility for risk, and justifiable requests.

Art. 62 states that all contracts should be concluded in written form, should indicate a duration, the characteristics and the prices of the products, the mode of delivery, and the terms of payment (OECD 2013). It prohibits contractual provisions that:

(a) directly or indirectly impose unduly onerous purchase, sale or other conditions, the performance of obligations not related to the subject matter of the contract, or retroactive conditions; (b) apply objectively different conditions for the supply of equivalent goods; (c) make the conclusion and performance of contracts and the continuity and regularity of the commercial relationships subject to the supply, by contracting parties, of goods or services which by their nature and according to commercial customs, have no connection with one another; (d) engage in undue unilateral supply of goods or services not justified by the nature or content of the commercial relationships; and (e) engage in any other unfair business behaviour that proves to be such even taking into account the complex of commercial relationships characterising the supply conditions” (De Franceschi 2015, p. 500).

After the entry into force of art. 62, the number of UTPs prohibited in Italy became very large. The Green Paper on UTPs in the business-to-business food and non-food supply chain (EC 2013) identifies seven typologies of UTPs. Besides “territorial supply constraints” eventually imposed by multi-national suppliers, these seven typologies were further detailed into 11 practices representing “the core of the problem” by Renda et al. (2014, p. 11), who performed a comparative analysis of the legislation of the EU MSs. Compared to other MSs, the Italian law covers the largest number of UTPs: all the 11 typologies are forbidden. Although the grouping could be different depending on the level of detail, this classification helps comparatively assess the Italian legislation. However, among the concerns of experts reported by Renda et al. (2014), these provisions are limited to the relationships between businesses and micro-enterprises (Ibid). Table 3 illustrates how each of the 11 UTPs prohibited by art. 62 may contribute to the generation of food waste, primarily in the production and manufacturing phases.

The responsibility for overseeing the application of art. 62 is attributed again to the AGCM. This can impose administrative fines that, in most cases, range from 516 to 3,000 Euros, proportional to the benefits obtained by the party which did not comply (De Franceschi, 2016, p. 500). The upper limit is raised to 500,000 Euros, but only for a specific violation, which does not represent an UTP based on the previous definition (i.e. when the buyer does not pay the goods received within 30 days for perishable products and 60 days for other products)¹². Furthermore, the lower limit is always kept at 516 or 500 Euros, so that the actual level of the fine is very arbitrary. To obtain a compensation for their damage, weaker parties need to take legal action. Legal action can also be initiated by consumer associations belonging to the National Council of Consumers and Users (*Unione Nazionale Consumatori*) or by business categories represented in the National Council of Economy and Labour (*Consiglio Na-*

¹²The upper limit is raised to 20,000 Euros, and the value must be proportional to the good purchased/sold, if the violation concerns the provisions of the first clause of art. 62 (i.e. the contract should be stipulated in written form, indicating duration, quantities, characteristics of the product, prices, ways of delivery, and means of payment). Instead, fines range from 500 to 500,000 Euros if the purchaser does not pay the goods within 30 days for perishable products and 60 days for other products; in this latter case, the fine must be based on the turnout of the purchaser, the frequency and the entity of the delay. However, the law contains no further specification on how to calculate the proportionality.

zionale dell'Economia e del Lavoro) or at national level. Indeed, the initial requirement according to which the provisions of art. 62 must be fulfilled "on sanction of voidness" of the contract was eliminated when the law decree was converted into law (Ibid). The AGCM can also start *ex officio* investigations, but confidential complaints are not possible (Renda et al. 2014). Since the AGCM was already in place before the entry into force of art. 62, its approval neither implied any relevant investments, nor caused a direct increase in public expenditure.

Despite several reasonable attempts to extend the applicability of art. 62, the AGCM issued a resolution specifying that its provisions apply only to the **relations among enterprises of the agro-food supply chains** (De Franceschi 2015). Still, a legal expert cited by Renda et al. (2014) argues that the provisions of this norm are impossible to satisfy, given the frequency with which the contracts between retailers and suppliers are negotiated. Moreover, the prevalent opinion among jurists is to **rule out the mandatory character** of art. 62, which says that the invalidity of a contract can be declared only by a judge (not by the AGCM). De Franceschi (2015) argues, instead, that the violation of a clause like the prohibition of the transferability of claims is likely to invalidate a contract, in line with the provisions of Directive 2011/7/EU against late payments. Thus, the jurisprudence is still evolving. The findings of a survey carried out by AGCM in 2013 suggest prioritising the interventions *ex art. 62* based on two criteria: whether a competition restriction has a significant effect on the functioning of a market, and whether an unfair conduct is widespread (OECD 2013). Hence, protection of weaker market players is only a by-product of the promotion of a level-playing field (Ibid).

Stakeholders' attitude

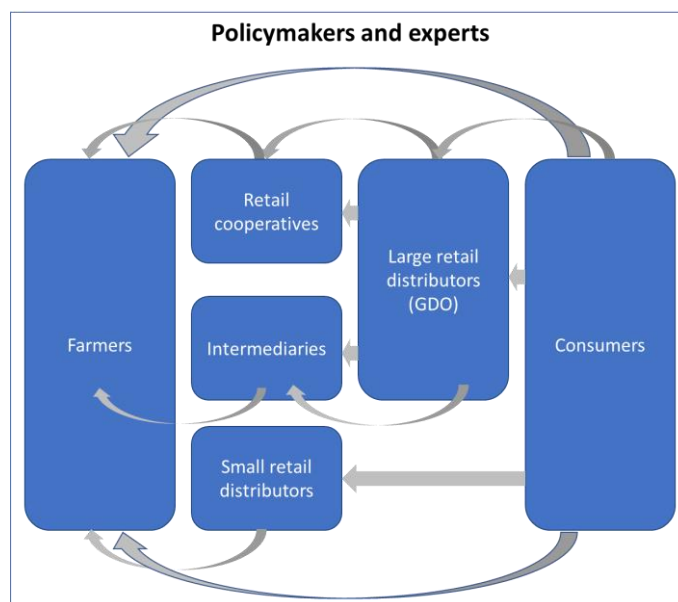
As Figure 8 shows, there are different links among stakeholders and an intervention in one can produce different implications on the others. The actors of the food supply chain mainly involved (either as victims or as wrongdoers) in UTPs are farmers, large retail distributors (GDO), small retail distributors and intermediaries, including the buyers who work for large retail chains. Some of them are members of broader organisations, like business associations, or join in producer, processor and retailer cooperatives. Consumers play an important role on the market with their demand. All of them interact with policymakers or experts, and especially with national enforcing authorities (the AGCM, and the Chamber of Commerce).

The **AGCM** carries out periodic **market analyses and surveys** to identify competition issues in the agri-food sector. These surveys found that up to four intermediary operators intervene in the fruit and vegetable supply chain (OECD 2013). Cartels were identified among bakers, as well as among pasta manufacturers and their industry associations, that had caused an unjustified increase in prices in 2006-2009 (Ibid). However, with two cases of market foreclosure by dominant actors, the multi-product (retail) sector is the one with most abuses identified (Ibid).

A 2003 survey focused on vertical relations between agro-food firms and large retailers. Agricultural producers mentioned problems such as long **negotiations** (even two- or three-level, first with "super-alliances", then with single retailers, with consequent time consumption, which is problematic especially for small producers), requests of delivering goods before formalising the agreement, unilateral changes in the contractual conditions, and especially trade spending (i.e. additional fees to be

paid for promotional services, which are rarely required by small producers, but may represent up to 40% of the value negotiated) (Ibid). A new survey from 2013 did not detect any conduct needing immediate intervention but highlighted many issues of vertical nature: e.g. 57% of the producers declared that they accept retroactive unilateral changes often or always due to fear of commercial retaliation (EC 2014).

Figure 8. Relationship among stakeholders.



Source: Authors' own elaboration.

According to the findings of a recent investigative report (Ciconte and Liberti 2017), small producers often avoid reporting cases of UTPs not to be “delisted” as suppliers of large retail chains. Hence, the **impossibility to file confidential complaints** according to art. 62 is likely to reduce the efficacy of this norm. Consistently, Palladino (2017) argued that the “fear” of being expelled from the market due to retaliation by stronger partners is the main reason why the victims of UTPs are unlikely to fill complaints based on art. 62.

4.3.3 Analysis of the policy and challenges

The approval of art. 62 is part of an attempt of Italy to comply with the EU legislation. This norm extended the provisions of Directive 2005/29/EC (which deals with UTPs in the business-to-consumer sale of goods and services) to the relationships between large businesses and small and medium-sized firms (Hilty et al. 2013). According to Palladino (2017), there are no contrasts between the Italian and the **EU legislation**, and that there are no EU norms interfering with the application of the former.

The impact of art. 62 cannot be clearly assessed for two reasons. First, its approval is relatively **recent** (as of 2014, it had not been applied yet; OECD 2013). Second, its **preventive nature** biases the results of any evaluations. Palladino (2017) could mention no cases of application and considers that weaker stakeholders of the agri-food chain expect no results from its application in the future. Indeed, there are no norms supporting weaker partners either in the phase of implementation of a contract, or in the application of art. 62. Since all actors of the agri-food chain benefit from the payments of the Common Agricultural Policy, as well as from the national

tax system, he argued that a strategy to prevent UTPs could be to suspend all fiscal incentives in case of violation of art. 62 (Palladino 2017). However, this possibility is not foreseen in the norm. He also highlighted the need of a system of registration of the contracts with quantities and prices to avoid unjustified or unilateral changes (Ibid). Nevertheless, the establishment of a non-atomised offer by means of well-functioning producer organisations is paramount for these provisions to be effective.

Like in the UK, also in Italy there is a “**fear factor**” that prevents complaints against UTPs. Such factor was found to significantly reduce the propensity of weak partners to raise objections against the conduct of buyers all over the EU: 65% of the suppliers keep a conciliatory attitude due to fear (De Franceschi 2015). The role of the “fear factor” has been recognised by the European Commissioner for Agriculture and Rural Development **Phil Hogan** (Marks 2017). Hogan expects a legislative proposal to set **new rules on price transparency** and **increase the power of agricultural cooperatives** in early 2018. He considers that even the reforms proposed by the Agricultural Markets Taskforce set up by the EC to improve farmers’ position are not enough. The incoming norms will affect also the Italian legislation in the next years.

UTPs impact on food waste also at supranational level. At the EU level, they can be addressed by the **EU Food Fraud Network**. This institution was established with a view to allowing EU Member States to comply with arts. 36–40 of the 2004 Official Controls Regulation¹³ in matters where national authorities must deal with intentional violations of food chain laws having a cross-border impact. Although this institution can address UTPs, it must deal with very broad topics. Hence, the EC President Jean-Claude Juncker considers that additional legislative measures, like those mentioned by Commissioner Hogan, must be taken (EC 2017b). Also in this case, like for AGCM with respect to art. 62 in Italy, a very broad legislation coupled with an overloaded supervision authority may result in an inefficient application of the legislation itself.

4.4 Comparative analysis

The approach adopted in the UK and in Italy to tackle UTPs in the food supply chain differ both in their evolution and in the regulatory outcome. This is due to the different socio-economic background, market structure, as well as drivers for adoption.

4.4.1 Preliminary market conditions

Despite a **different market structure**, the “victims” and the “wrongdoers” are the same in both countries, i.e. small producers and processors of perishable products, and large retail companies, respectively. Consequently, the “**fear factor**” is common to both countries, and “victims” may avoid pursuing legal claims to have their rights respected. Another issue is represented by **awareness** of these rights as, for example, in the UK the “wrongdoers” are based in the country, but the “victims” are often international and less aware of their rights.

¹³ Regulation 882/2004 “On official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules”.

Compared to Italy, the **UK** presents stronger **market concentration** and farmers' organisations (the NFU), as well as a stronger civil society that brought evidence of the impact of UTPs on producers and suppliers at home and internationally. The NFU carried out surveys on UTPs whose findings were used as an evidence that the voluntary approach was ineffective and, therefore, were a significant factor in the government's decision to adopt a regulatory approach through legislation. In contrast, in **Italy** there was almost exclusively **anecdotal evidence** of the abuse of market power by large retail companies, provided by newspaper reportages. Furthermore, while in the UK the association of retailers (BRC) argues that "hard bargaining" could be beneficial for consumers, in Italy there are no strong organisations carrying out negotiations at national-level and the conflict between the two sides has not been brought to the forefront, hence finding long-lasting solutions is difficult. Finally, in the **UK** there was a more consolidated policy approach to address UTPs, based on a previous experience of **VAs**. Instead in Italy, despite the evidence of a large diffusion of UTPs, for a long period these have been addressed by means of an extensive interpretation of art. 9 of the law of subcontracting, and no specific regulatory framework was set before 2012.

4.4.2 Different approaches to reach the same goal

The **pathway to establishing the GCA** in the **UK** started from a **bottom-up approach**: a voluntary framework was set up, a survey carried out, and an investigating commission established before moving to a regulatory approach through legislation. Instead, in **Italy**, the adoption of art. 62 seems to have been the result of a **top-down process**, where the country aimed at complying with EU criteria at least formally.

A strong challenge to the fight against UTPs in Italy is identified in the lack of prior attempts to address UTPs by means of suasive instruments, so that the information available is also poor. In the UK, voluntary tools are usually preferred to regulation. However, in the case of the GCA these tools were turned into compulsory regulation once this approach received political backing due to the serious concerns identified by the 2008 investigation. In Italy, there were limited linkages between voluntary and regulatory approaches, and policymakers did not take advantage of civil society monitoring and/or VAs to improve the scope and the effectiveness of the regulation.

The authorities responsible for addressing UTPs were also established in a different way and operate differently. In the **UK**, the **GCA** deals specifically with the **grocery sector**¹⁴, while in Italy the **AGCM** must deal with **all antitrust issues**, not only with those related to the food sector. Hence, the GCA can focus on UTPs without having too many disputes to solve. On the other hand, the GCA deals only with the relations between **direct suppliers** and retailers, so that upstream relations are not included in the definition of UTPs, while the **Italian law** includes all **business-to-business relations** in the food supply chain. Moreover, in the UK the GSCOP covers (direct) suppliers all over the world, while the Italian legislation does not say clearly whether the nationality of the supplier matters. However, there are no reason to think that foreign suppliers are not covered by art. 62, as long as the violation happens on the

¹⁴ Also in the UK there is a Competition and Markets Authority like the AGCM in Italy, that performs a wider role than the GCA.

Italian territory (which may be a challenge in case of exchange of goods across countries). These are aspects to consider when setting up further legislations.

In both the UK and Italy, **direct appeal** to the authority is limited. In the UK, individual suppliers cannot file complaints, but the GCA can start independent investigations. In Italy, the judgements of the AGCM do not invalidate a contract, but the victim has then to appeal to ordinary courts.

The **funding** of the GCA is quite limited, and most of its **staff** are part-time. Due to the different nature of Italy's AGCM, its resources and staff are much larger, however this body must deal with several issues. A valid comparison would be between the UK Competition and Markets Authority (CMA) and Italy's AGCM, as their roles and remit are the same. The GCA deals with only a subset of the CMA issues specific to grocery supply chains, which are set by the scope defined by its regulation.

Investigations, penalties and monitoring

In both countries, the **number of investigations** carried out is **limited**. In Italy, given the "fear factor" that limits the number of claims, there are no assessments, apart from the opinion of the expert provided in the previous paragraph (Palladino 2017) and some newspaper investigations. Differently, in the **UK**, previous interventions by the GCA caused **trust between retailers and suppliers** to increase, so that the cases of UTPs decreased. The fact that each retailer appoints its own **Code Compliance Officer** is another important mechanism through which trust is built and compliance with the code improved.

There are also sizeable differences in the **penalties**. In Italy, the lower limit foreseen by the legislation for the fines (516 Euros), and the upper limit for most violations (3,000 Euros) are ridiculously low compared to the damage caused by most UTPs, so that they can hardly have any deterrent effect. Instead, in the UK the maximum level of fine that can theoretically be issued is set a 1% of a business' turnover, so that the relative cost of violating the law is perceived as significant. Additionally, in the UK the regulatory approach became effective once the possibility of imposing fines received political backing. Furthermore, the investigations, assessment and ranking of how supermarkets are doing is important, as retailers are sensitive to the **reputational damage** that the investigations can inflict, not just the financial penalties.

In the UK, the GCA's activities are funded by a general levy on large retailers as well as the recovery of costs from arbitrations undertaken by the GCA and **fines** which may have resulted; then, any unspent funds are returned to the regulated retailers, in proportion to their original levy contributions. Instead, in Italy AGCM is funded by general taxation. The UK strategy could theoretically cause the penalties to increase if many cases of UTPs are detected, thus generating **collective blaming** on "wrongdoers". However, a breach of the GCOP requires detailed collection of evidence that is resource- and time-consuming, and the GCA's limited resources limit the number of investigations carried out yearly. Also, the proceeds of any successful investigations are not accumulated beyond covering costs.

Finally, in neither country there is a **systematic measurement** of food waste that occurs as indirect consequence of UTPs, and that could be used as a proxy of them. Indeed, the current EU definition of food waste does not include farm-level losses. In

Italy, not even the impact of art. 62 on the diffusion of UTPs is subject to **monitoring**. In the UK, annual surveys are carried out by the GCA, thus providing an active monitoring of the key supplier issues in relation to UTPs through time. In later years, a key finding has been the decline in cases of late payment. Furthermore, there is an ongoing consultation process in the UK to review the effectiveness of the GCA and decide whether its remit should be extended. It was recently decided not to do so in terms of indirect suppliers, while the provisions of the GSCOP have been extended to smaller retailers.

4.4.3 Conclusions and recommendations

The UK and Italian experiences allow to draw a number of recommendations for the countries wanting to introduce policy measures to tackle UTPs in the agri-food sector. First, like for other policies, a **preliminary assessment of underlying market conditions** in terms of concentration and power asymmetries at national and local level is needed. To explore the potential effects of the regulatory measures one wants to introduce and assess stakeholders' availability to avoid abusing of market power, a **voluntary approach** could be preliminarily adopted, like in the UK before establishing the GSCOP. If this approach is successful, it can be consolidated without turning to regulatory measures. Otherwise, this period of "trial" can be used to identify best practices to insert in the regulation.

The authority responsible for tackling UTPs should receive **enough funding** (including by means of the fines imposed¹⁵) to carry out independent investigations and, at the same time, it should have the possibility to focus specifically on the **agri-food sector**. For example, in Italy a specialised section of the AGCM could be established. Furthermore, this authority should better be empowered of redressing unfair situations by setting the sizes of the fine and of the compensations **without any need** for the victim **to claim to ordinary courts**. The latter could intervene only in a following moment, in case the "wrongdoer" does not comply within the terms, without any need for the "victim" to claim. Obviously, the **fines** should be of an appropriate amount to discourage the adoption of UTPs by stronger parts. The UK's decision to calculate them as a percentage of the wrongdoer's turnover could become a good practice to extend to other countries.

As for the **definition** of the practices forbidden, it should be **as general as possible** to avoid an unequal treatment of comparable situations and allow the authority to judge based on the **principle of equity**. For example, the UK should include **indirect suppliers**, and inform **foreign** ones of their rights every time that they register a contract with UK-based buyers. Instead, Italy – as well as the countries that have not set a regulatory framework yet – should adapt the general framework to the specific characteristics of their **internal market structure**: forbidding a large (and detailed) number of practices may result in the impossibility for the authority to prosecute them. Finally, **preventing retaliation** by the "wrongdoer" should become a primary goal of any legislation; otherwise, the weaker parts in the negoti-

¹⁵ For example, in the UK, funding for annual operational costs is in the form of a levy, while fines are used to cover the costs of investigations when a retailer is at fault. This helps avoid a situation where, if retailers are not found to be at fault, there isn't sufficient funding of the authority.

ations would not claim. Allowing **confidential claims**, as well as carrying out periodical **independent market investigations** to identify unfair conducts regardless of claims could be two effective strategies to overcome the “fear factor” and prevent the delisting of claimants.

As for the consequences of UTPs in terms of **food waste**, neither country adopted a clear strategy to tackle them. Such consequences could be partially addressed by setting an **organisational structure** to distribute the surpluses resulting from order cancellation or from other UTPs at a lower price, coupled with campaigns to promote these products. Moreover, as an ancillary sanction, “wrongdoers” could be forced, to purchase the agri-food product object of the UTPs from the “victim” for a minimum number of agricultural years.

Finally, the **monitoring** of the effectiveness of the legislation (e.g. how many cases have been brought up, who was the “winner”, whether there has been any change in the conduct so far) seems to be very poor, and totally missing in the case of Italy. A State-funded independent third party, charged with investigating and controlling, is needed. In the partial absence of this, NGOs and journalists have filled that spot, but although the role played by them in the UK represents an interesting experience, this is not a viable long-term solution. Further research could include assessing the **effectiveness of legal tools** for regulating contractual agreements. This would allow to identify the weaknesses of the legislation and, thus, what is needed to make it more effective without increasing too much the monitoring costs and the costs for weaker parts to defend their rights.

5 Case study 2: Voluntary Agreements to fight food waste

5.1 Voluntary Agreements: definition and context

Food waste is an issue that is rooted in diverse sectors and policy areas, making it crucial to address through a **strategic and integrated approach**. Policy research through REFRESH has identified that food waste drivers are cross-cutting by nature (Burgos et al. 2017). This transversality implies that a wide number of actors with various profiles is involved.

In this context, REFRESH researchers explored alternative policy measures to reduce food loss and waste such as **Voluntary Agreements (VAS)**, also called **voluntary alliances** or **frameworks for action** (Osoro 2016). Within REFRESH, these three terms are used interchangeably. The success factors of VA were also investigated to better understand how this alternative policy measure can enhance collaboration throughout the supply chain with the common ambition to reduce food waste.

Voluntary Agreements are defined by the REFRESH policy brief “Voluntary Agreements as a collaborative solution for food waste reduction” (Burgos et al., 2018) as:

Voluntary Agreements are self-determined commitments or pacts with qualitative and quantitative objectives, developed by private entities and/or other stakeholders in consultation with their signatories. They are used as alternative courses of action to traditional legislation, can be piloted by government officials, businesses or other actors, and can be used in addition to, or independently from existing legislation.

5.2 Voluntary Agreements in the UK

5.2.1 The problem of food waste in the UK

An overview of the UK’s food supply chain and the problem of food waste is provided in Section 4.2.1 The food supply chain and food waste in the UK.

5.2.2 Overview of the policy: the Courtauld Commitments

Definition of the Courtauld Commitment

Within the UK's context of food waste, one of the most well-known VAs is the **Courtauld Commitment (CC)**, which started in 2005 and continues to make a positive impact on food waste issues today¹⁶.

This VA brings together major stakeholders in the UK grocery sector to set, monitor, and achieve resource efficiency and waste reduction targets while incentivising knowledge sharing of best practices.

Since the launch of the CC, it has undergone four phases:

- CC 1 (2005-2009);
- CC 2 (2010-2012);
- CC 3 (2013-2015);
- Courtauld 2025 (2016-2025).

The CC is funded by all of the UK Devolved Administrations (DAs) (Scottish, Welsh and Northern Ireland governments) and delivered by the Waste & Resources Action Programme (WRAP). WRAP is a UK charity focused on resource efficiency, co-funded by Defra and the DAs¹⁷.

WRAP's role in the implementation of this VA has been vast throughout its four phases. WRAP works in partnership with leading retailers, brand owners, manufacturers and suppliers who sign up and support the delivery of the targets. WRAP regularly convenes working groups, forums, workshops and meetings to enable signatories to share best practices and discuss how to make progress towards the targets. Furthermore, WRAP has access to, and analyses confidential company data communicated by the signatories and aggregates it to assess the total impact of the actions (WRAP 2013).

Step by step description of the Voluntary Agreement

The following sub-sections detail each of the four phases of the CC.

Courtauld Commitment 1 (2005 – 2009)

Objectives and stakeholders

In the early 2000s, the environmental administrations of England, Northern Ireland, Scotland and Wales funded WRAP to initiate a VA based on the example of the Packaging Covenant in the Netherlands (OECD 2000). WRAP cooperated with DEFRA, the British Retail Consortium and the Food and Drink Federation to organise a Ministerial Summit at the Courtauld Institute in March 2005 attended by the majority of leading grocery retailers in the UK (WRAP 2013c).

¹⁶ <https://www.ellenmacarthurfoundation.org/programmes/government/toolkit-for-policy-makers/case-studies/courtauld-commitment> [Accessed 14.12.2017]; <http://www.wrap.org.uk/category/initiatives/courtauld-commitment> [Accessed 14.12.2017].

¹⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255512/wrap-funding-review-summary-responses-131104.pdf [Accessed 14.12.2017].

At the 2005 Summit, stakeholders signed the first CC, aimed at finding new solutions and technologies to diminish the food and primary **packaging** ending up as household waste. The three original targets were:

- to design out packaging waste growth;
- to reduce packaging waste in absolute terms; and
- to reduce food waste at the household sector by 155,000 tonnes compared to the 2008 baseline (WRAP 2013c).

It is therefore important to note that the **original objectives of the CC** were not exclusively aimed at food waste reduction, but also at a **smarter design of packaging waste reduction**.

For its first phase, the CC counted 42 signatories including 10 retailers and 32 brands, manufacturers and suppliers. The retailers represented 92% of the UK's grocery supermarkets (WRAP 2010a).

Policies implemented

Grocery retailers targeted consumers through information campaigns on food and packaging wastes and rethought practices such as labelling, pack sizes and promotions to facilitate consumer action and increase its impact. There are many examples of signatory activity:

- Sainsbury's "Love Your Leftovers";
- Morrisons' "Great Taste Less Waste";
- Optimised food product labelling (e.g. Warburtons removed "display until" dates used by retail staff to rotate products, leaving more prominent "best before" date)
- Pack sizes better suited to today's household sizes (e.g. Kingsmills "Little Big Loaf");
- Purchase-flexible promotions on food products to the consumer (e.g. Tesco's "Buy One Get One Free Later").

Collectively, signatories spent millions of pounds supporting the delivery of Household Food Waste prevention programmes (WRAP 2010b). In addition, over the period of the first CC WRAP managed an integrated consumer facing Love Food Hate Waste (LFHW) programme across the UK, helping those who wanted to reduce their food waste and save money. More than 300 local authorities have also run Love Food Hate Waste initiatives that help local people, including road shows, cookery demonstrations and recipe competitions, working with community groups, housing associations, and businesses. Community groups and individuals have also taken action (WRAP 2010b).

Impacts of the policies implemented

While the CC1's target of reducing food waste by 155,000 tons was reached, the packing waste reduction objective was missed by a narrow margin. In other words, while the amount of packaging waste was not reduced, the absolute amount of

packaging waste actually remained stable (at approximately 2.9 million tonnes between 2006 and 2009). However, as there was a 6.4% increase in grocery sales volumes, this means the average packaging weight per product did actually reduce (WRAP 2013c).

Considering the CC1's impact, it was estimated by WRAP that without the CC1, the food and packaging waste would have increased by 670,000 tonnes of food waste and 520,000 tonnes of packaging waste (WRAP 2013b). Hence, these levels of waste were avoided across the UK, which also correspond to a monetary value of GBP 1.8 billion (EUR 2.0 billion), and emissions savings of 3.3 million tonnes of CO₂-eq.

In addition to the qualitative and measurable results of cost, waste and CO₂-eq. emissions saving from the CC1, signatory companies furthermore experienced the following within their organisations: (WRAP 2013a):

- Enabled to meet consumer demand for waste reduction;
- Improved practice and innovation;
- Improved resource efficiency of products and their packaging;
- Created a support network and vehicle for change;
- Developed corporate environmental performance;
- Improved competitiveness and resilience of the signatories.

During CC1, the UK's leading grocery retailers, and direct competitors (Tesco, Sainsbury's, Asda, Morrison's, etc.) collaborated to reduce food and packaging waste. CC1 also demonstrated that consumers were receptive to awareness messages on food waste that came from the actor from which the consumer purchased their food products. CC1 therefore set a precedent for future cooperation and for consumer action (WRAP 2013c).

Courtauld Commitment 2 (2010 – 2012)

Objectives and stakeholders

In its second phase, the CC broadened its focus from the retail sector to the entire food supply chain and incorporated references to the carbon impact of food packaging. The targets set in 2010 for the year 2012 were:

- To reduce the carbon impact of grocery packaging by 10% (reduce the weight, increase recycling rates and increase recycled content of grocery packaging);
- To cut supply chain and packaging waste by 5%;
- To reduce household food and drink waste by 4%.

For its second phase, the CC counted 53 signatories including 10 retailers and 43 brands from manufacturers and suppliers. WRAP also had the support of business associations, standards agencies and other organisations working throughout the food supply chain (WRAP 2013d).

An important point to note is that signatories only reported waste when they had ownership of the products, therefore the targets applied to the brands belonging to

the signatory. This aimed at avoiding double-counting in cases where the manufacturer and the retailer of a same product were both signatories (WRAP 2013e).

Policies implemented

Several CC1 initiatives (labelling, promotions, campaigns, etc.) continued during CC2. Furthermore, CC2 attempted to achieve its objectives both by valorising waste streams and through actions on food waste drivers (overproduction, product damage, etc.). Case studies of actions initiated by CC2 signatories are available on WRAP's website (WRAP 2012), including:

- Lightweight packaging, recycled packaging content, designed packaging with recyclability in mind and changed product formats to better accommodate consumer needs (e.g. refill packs).
- Focused waste prevention strategies by retailers and manufacturers based on research, tools and expertise offered by WRAP (WRAP 2013).

Impacts of the policies implemented

Two of CC2's objectives were reached while the third was missed by a narrow margin:

- The carbon impact of grocery packaging decreased by 10%, hitting the reduction target.
- Traditional grocery product and packaging waste in the grocery supply chain was reduced by 7.4% (217,000 tonnes per year) exceeding the 5% target
- The total household food waste was reduced by 3.7% (270,000 tonnes per year) against a target of 4% (WRAP 2013).

In total, 1.7 million tonnes of waste were avoided during this phase (WRAP 2017), corresponding to a monetary value of GBP 3.1 billion (EUR 3.5 billion), and emissions savings of 4.8 million tonnes CO₂-eq. (WRAP 2013).

In addition to the qualitative and measurable results of cost, waste and CO₂-eq. emissions saving from the CC2, like the CC1, signatory companies experienced additional benefits within their organisations:

- Improvement of the resource efficiency of products and packaging;
- Proactivity before facing a carbon-constrained future;
- Improvement of their public image among the consumers;
- Reasons and motivation to innovate (WRAP 2013).

Courtauld Commitment 3 (2013 – 2015)

Objectives and stakeholders

For the third phase of the CC, three new targets were set with quantitative objectives evaluated on 2012 baselines:

- Reduce household food and drink waste by 5%;

- Cut traditional grocery ingredient, product and packaging waste in the grocery supply chain by 3%;
- Improve packaging design throughout the supply chain and prevent any increase in the carbon impact of packaging (WRAP 2016e).

The packaging optimisation measures during CC3 were a continuation of the measures implemented during CC2 with an added focus on the eco-design of packaging in order to target the issue of (unintentionally) induced product waste due to poor packaging design.

CC3 involved 53 signatories including 10 retailers, i.e. the same number as during CC2 with some actors leaving and others joining (WRAP 2014).

Policies implemented

CC3 continued and built on initiatives started during the previous two phases.

WRAP continued the “Love Food Hate Waste” campaign and started “Your Workplace Without Waste”, an engagement programme to raise awareness among signatories’ staff and engage them into identifying waste sources in order to take action within their company to reduce them (WRAP 2015). WRAP also continued its workshops and other information-sharing initiatives to assist companies in tackling common challenges.

The following are case studies of actions initiated by CC3 signatories, available within WRAP’s final report on the CC3 (WRAP 2015):

- Tesco reduced in-store bakery waste;
- Morrisons found substantial potential savings in meat pie production;
- Greencore and Sainsbury’s identified waste prevention solutions across their sandwich supply chain;
- The beer and soft drinks sectors developed a checklist of operational actions to reduce waste in drinks manufacture (WRAP 2015).

On top of that, WRAP conducted studies such as the “Quantification of food surplus, waste and related materials in the grocery supply chain” report, which gave companies information about the potential for waste reduction (WRAP 2015). Training was offered to the public to raise awareness and provide good practices. Food businesses helped involve consumers by improving date labelling and providing storage advice to limit household waste.

Impacts of the policies implemented

Only the second and third of CC3’s objectives were achieved (WRAP 2015):

- Household food and drink waste did not reduce by 5%, although it remained at stable levels;
- Ingredient, product and packaging waste in the grocery supply chain was reduced by 3%, hitting the target;
- CO2 emissions related to food packaging decreased by 7% (WRAP 2015).

In total, an estimated 1.1 million tonnes of waste were avoided during CC3, corresponding to a monetary value of GBP 1.6 billion (EUR 1.8 billion), and emissions savings of 2.9 million tonnes of CO₂-eq. (WRAP 2016b).

According to WRAP, the impacts of CC3 went further than food waste reduction numbers and included the following considerations (WRAP 2015):

- “Winning hearts and minds”: the CC raised awareness about food and packaging waste among companies and employees through action such as Your Workplace Without Waste (WRAP 2015).
- “Working together in partnership”: diverse actors worked as a whole through workshops and experience sharing to address the main waste challenges.
- “Pioneering change”: Signatory companies took the lead in the fight against food and packaging waste. This gave them visibility in the sector and fostered their innovation spirit.
- “Operational improvements”: the changes implemented during CC3 resulted in substantial benefits for the signatories including the financial savings and the public reputation.

5.2.3 Analysis of the policy and challenges

The CC has provided positive change towards the reduction of food waste product packaging for a dozen years. Although political priorities have shifted from 2005, according to Dr Liz Goodwin, the former CEO of WRAP, also identifies the CC as a VA that provided continuity and a consistent objective “to reduce waste and **save people, businesses and local authorities’ money**” (Goodwin 2016).

Although the CC’s fundamental focus remains to be on food and packaging waste reduction, the Courtauld 2025 shows how VAs can continue to push the envelope for change by introducing new focus areas within its scope such as water use reduction throughout the supply chain and waste generation at the farm level and the hospitality sector.

Dr Liz Goodwin is optimistic about the new commitment as “the results have been satisfying with the three previous phases, so the next decade conveys a great hope” (Goodwin 2016).

Factors of success

A favourable national policy framework

In 2005, food waste in the UK amounted to 30-40% of production, ranking the country as one of the worst in the world in terms of proportion of food wasted. Furthermore, a large share of this food was landfilled even if around 25% of it could be used as animal feed, which is not in line with the EU requirements (Vidal 2005). Indeed, the UK was a signatory to the Landfill Directive of 26 April 1999 (Directive 1999/31/EC), which set a target of 50% reduction of biodegradable municipal waste between 1995 and 2009. At that time, the preferred policy instrument of the UK government was legislation. At the launch of CC1, Elliot Morley, the Minister of State for the

Environment and Agri-Environment in DEFRA stated that the government was willing to explore VAs but reserved the right to take harder measures if the VAs did not bring concrete results quickly. This “legislation threat” may have formed part of the motivation for the private sector to sign the CC (Mahon 2017).

Phase 1 of the CC was a success and so was the *Halving Waste to Landfill commitment*, another VA developed by WRAP within the same period. This sent positive signals to UK companies and the government regarding both the concept of VAs and the ability of WRAP to lead such projects and therefore established solid foundations for the emergence of subsequent VAs (WRAP 2009).

From CC2 onwards, the threat of government legislation faded. At the end of CC1 in 2010, a coalition government of conservatives, supported by liberal democrats, was elected, prioritising issues directly related to the 2008 financial crisis, and in particular significant budgetary reductions across the UK public sector and a reduction in the volume of new legislation, over environmental issues, such as food waste. Therefore, from CC2 onwards, the government softened its approach, supporting an entirely voluntary route to achieving the CC2 targets (Mahon 2017). Given the success of CC1, the absence of a legislation threat did not affect the subsequent CCs.

Regarding the EU level, a link can be made between UK’s action against waste, and the revision of the EU waste management strategy in the early 2000s. The CC took into account this revised waste management strategy within its scope and furthermore capitalised on the increasing interests towards more sustainable waste systems to attract signatories.

Today, the UK’s actions towards food waste reduction thanks to the CC is furthermore seen as contributing to the global food waste target set by Sustainable Development Goal (SDG) 12.3, adopted by the United Nations in September 2015 (Ellen MacArthur Foundation 2015). In other words, the UK’s objective to reduce food and drink waste by 20% by 2025 on the (including production, distribution, retail, hospitality and food services and households) is in line with the SDG 12.3 goal to cut food waste in half by 2030.

Despite these examples of the UK’s favourable context for food waste, the impact of Brexit on the UK national policy framework, and therefore on food waste issues are still unclear. As stated in the 2013 DEFRA review of WRAP, funding allocation from DEFRA to WRAP is reliant in part on ministerial priorities. This therefore means that depending on the effect of the Brexit on national priorities, funding for food waste research could potentially be impacted.

A forum for exchange facilitated by an independent convener

Each phase of the CC has placed dialogue as a central element of the agreement in order to facilitate exchange amongst actors along the supply chain. WRAP’s role as the independent convener of the agreements who facilitates this exchange and builds a network of trust amongst the signatories is seen as crucial by all partners (Goodwin). As mentioned before, the signatories of the CC agree to report annually their progress. WRAP collects companies’ food waste data, sums them for all signatories (a process which is audited) ensuring thus confidentiality of individual players. All private actors are thus able to put aside competition and commercial

interest and collectively develop a clear strategic framework and targets. This allows the food sector to collectively send clear signals to both suppliers and consumers concerning its priorities and objectives, thus facilitating and encouraging waste reduction across the supply chain (Mahon 2017).

In addition to WRAP's confidentiality assurance for company data, all participants furthermore benefit from WRAP's expertise in measuring and aggregating data in a centralised manner, free of charge. Within their two data collection models, WRAP is able to determine how much of the data results are directly influenced by the company's application of the CC (Salo 2016). Through this independent monitoring, WRAP is held accountable for the accuracy of its work, which adds to its credibility.

Signatories also appreciate WRAP's food waste expertise and knowledge of requirements set by similar agreements in other countries internationally or through the UN, the FAO, or the EU. Members of WRAP are also active members of international organisations working to reduce food waste and help businesses integrate these requirements into their existing production processes, enhancing synergies with different food waste reduction agreements on the EU and global level.

Recruitment of key players from the grocery industry

Throughout its four phases, the CC managed to gather around the table key players of the food and drink sector. Courtauld 2025 includes food & drink businesses representing 95% of the 2016 UK food retail market – as well as many leading brands, manufacturers and hospitality & food service companies.

Aside from the advantage of the wide representation of actors across the supply chain within the CC, another factor that contributed to the success of the CC is the sign up at Board level (Mahon 2017). Having company, Board commitment involved in the CC has proven to be essential, as these individuals have the power to drive change within their company.

The CC also shows that having a strong evidence-based business case to attract these CEOs in signing the agreement is critical in the recruitment process. The vision promoted by WRAP centres on how to prevent food waste, rather than on how to manage/dispose of it once it is already produced and wasted. The challenge is, therefore, to realise savings in another step of the chain in order to outweigh the potential valorisation of avoided waste.

Moreover, it is worth underlining that the UK governments do not take direct actions to recruit participants (Salo 2016). Neither WRAP nor the UK government provides any direct financial incentives to signatories for their participation (Salo 2016). The fact that major businesses of the sector join voluntarily is a sign of a strong motivation and sends positive signals to other potential signatories and to the public opinion. The impacts in terms of image and public opinion are significant. They also put forward the signatories' involvement in their own communication campaigns (e.g. Dairy Crest, Agrimetric or Dawn meats websites).

Common objectives and measurable progress

Another factor that contributes to the success of the CC is that signatories collectively set ambitious yet achievable and quantifiable targets with clear deadlines (Bryden et al. 2013). Table 4 provides an overview of the CC's scope and primary

objectives across its four phases. Targets were generally met in each phase, and in the few cases in which they were missed, it was only by a small margin, demonstrating signatories set ambitious, yet realistic targets.

It is notable to mention that the definition of each new set of targets within each phase of the CC considered the outcomes of the previously conducted work. This consideration for the scope of each CC and its results were used in order to build on findings of the previous CC in order to fine-tune the next set of targets according to the current political and environmental context. For example, upon the conclusion from CC1 that food waste reduction had continued potential, this focus and its relevant target was ensured in each consecutive phase of the CC (Mahon 2017).

Existing limitations

Absence of sanctions for non-compliance and absence of legislation

In the current configuration of the CC, WRAP does not have any compliance power over signatories. WRAP writes to signatories who have not implemented real change in order to motivate them to take action, but is unable to sanction them in case of pursued non-compliance. Some signatories have expressed the desire to have stricter compliance requirements in the commitment. If the requirements were stricter, non-compliant companies would be sanctioned or removed from the CC so that they at least lose the advantages of participation (Salo 2016).

In addition, the CC is currently a self-standing VA rather than a complement to regulation. Though legislation is by no means a guarantee of success, Scotland has a strict regulations on food waste, including a 70% recycling target and 33% food waste reduction for 2025 in Scotland (Scotl et al. 2016a). In Scotland, VAs are used as a tool to meet legislative targets. The UK government could, for example, set binding targets to ensure that all the actors are committed to the same objectives and have real motivation.

The lack of legislation or sanction may result in little efforts to achieve the targets and may undermine the credibility of the commitment (Bryden et al. 2013). The dilemma is to choose between:

- a wide involvement of a large number of actors giving visibility and momentum to the agreement; or
- a deeper involvement of fewer signatories with more relevant and effective actions which might give better results.

Lack of transparency in the monitoring process

While monitoring is done within the framework of the agreement, only aggregated data is made available to the public, making it impossible to assess the amount of waste for each single signatory. This was repeatedly underlined by Feedback (Feedback 2006), which regrets the lack of transparency of this system. Individual participants' contribution to the VA remains hidden in the aggregated data so companies that have not implemented any significant changes will reap the same public image and expertise benefits from the VA as companies that have invested in food waste reduction. Moreover, as noted during a roundtable lead by the Food Ethics

Council in 2012, honesty and openness in challenges and difficulties can help developing working tools. Experience sharing should be about both successes and failures to be complete and fully efficient (Food Ethics Council 2012).

According to some stakeholders, one way to address this obstacle would be to make individual reporting mandatory for all signatories. This way, no actor would consider it a disadvantage to report this information. WRAP could have an important role in this, by collaborating with the companies to make the reporting as efficient as possible. Collecting data is a complex issue when it comes to waste, and proper support could make final data more reliable. However, the risk of making individual reporting mandatory is that fewer companies would sign up to the voluntary agreement, making it less effective.

Lack of incentives for other actors to join the CC

The lack of incentives for specific types of actors can be seen as a limitation as it reduces the scope of the agreement. Indeed, while retailers are easily convinced to join the agreement because of brand motivations, it is more difficult for manufacturers whose sector is not directly affected by public opinion (House of Commons 2017).

Table 4. Objectives and impacts evolution through the CC.

Phase	CC1 (2005 – 2010)	CC2 (2010 – 2012)	CC3 (2013 – 2015)	CC 2025 (2016 – 2025)
Signatories	42	53	53	130
Objectives	Reduce household food waste by 155,000 t in 2010 compared to 2008 ✓+ Stop packaging waste growth in Households ✓ Reduce the amount of packaging waste (in intensity) ✓	4% reduction in Households food and drink waste ✗ 10% reduction of the carbon impact of grocery packaging ✓ 5% reduction of supply chain packaging waste ✓+	5% reduction in household food and drink waste ✗ 3% reduction of waste in the grocery supply chain ✓ Ensuring no increase in the carbon impact of packaging ✓+	20% reduction in food and drink waste in the UK 20% reduction in the GHG intensity of food and drink in the UK Reduce the impact of water use throughout the whole supply chain
Savings	1.2 Mt waste GBP 1.8 billion 3.3 Mt CO ₂ -eq. (consolidated)	1.7 Mt waste GBP 3.1 billion 4.8 Mt CO ₂ -eq. (consolidated)	1.1 Mt waste GBP 1.6 billion 2.9 Mt CO ₂ -eq. (estimates)	In progress

Source: WRAP site: www.wrap.org.uk/category/initiatives/courtauld-commitment. Legend: **✗** target missed **✓** target achieved **✓+** target exceeded.

The life cycle approach outlined within the CC2025 can be seen as an improvement, as it makes manufacturers realise the financial benefits achievable through waste reduction, as well as the other benefits inherent to the agreement. However, this fails to engage the sector in a greener and sustainable vision of its activity (House of Commons 2017).

Challenges

Courtauld 2025 (2016 – 2025)

The fourth and current CC, Courtauld 2025, broadened its scope by working on the entire life cycle of products to reduce food waste. It involves 130 signatories (WRAP 2016d) making up 93% of the 2016 UK market share in the food and drink sector (WRAP 2016c).

This phase of the CC aims to lower the (environmental) impact and increase the efficiency of manufacturing, increase value of purchased food and drink, and optimise food waste management (WRAP 2016a). The following three concrete targets accompany these focuses:

- Reduce the food and drink waste across the supply chain (production, distribution, retail, hospitality and food services and households) by 20%;
- Reduce the GHG intensity of food and drink consumption by 20% (WRAP 2016a);
- Reduce the impact of water use in the supply chain (specific target and metric foreseen to be developed in the coming year) (WRAP 2016a).

This 9-year long commitment was designed by WRAP to enable participants to fit changes into existing business plans and focus on actions that may not lead to immediate results but have significant positive long-term consequences.

Progress under Courtauld 2025 will be reviewed every three years by WRAP. Signatories will work with WRAP to develop a roadmap towards the 2025 targets (Mahon 2017).

The scope of the CC changed according to the relevance of the particular phase: whereas CC1 was retail-focused, CC2 and CC3 focused on correcting flaws in the supply chain causing food and packaging waste on the food manufacturers and retailer levels. The new phase of the CC from 2016 to 2025 has a broadened scope, such as the introduction of the consideration of water use reduction throughout the supply chain). Furthermore, extending to almost 10 years, this new phase has the longest implementation period out of all of the CC, highlighting its long-term vision.

Table 4 above illustrates the evolution of the different phases of the VA in terms of objectives and impacts.

5.3 Voluntary Agreements in the Netherlands

5.3.1 The problem of food waste in the Netherlands

In the Netherlands, a coalition of The Sustainable Food Alliance and the Ministry of Economic Affairs developed the Sustainable Food Agenda 2013–2016. Reducing food losses and waste and optimizing waste streams are priority areas, with the ambition to also contribute to the objective of reducing food waste by 20% by 2015 (with reference 2009). Though progress has been made in awareness and increased levels of actions, this is not reflected in a reduction of food waste figures yet. The issue of food waste reduction has been of high priority within businesses for many years. A series of public private initiatives and projects has been initiated.

In the monitoring methodology in the Netherlands, a distinction is made between unavoidable, potentially avoidable and avoidable food waste flows. Only the potentially avoidable and avoidable fractions are considered as food waste. The amount of food waste in 2015 in the Netherlands, based on this definition, and using available public and statistical sources, amounts to between 1.8 and 2.6 million tonnes. Per capita food waste levels are between a minimum of 105 kg and a maximum of 152 kg (Soethoudt 2016). Government reports and current news demonstrate that the **total amount of food wasted in the Netherlands is stagnating** (REFRESH 2017; Soethoudt 2016).

There is a strong link between the level of the supply chain at which food is wasted and the final destination of the food wasted. In 2013, consumers were responsible for 0.8 million tonnes of wasted food (Ministry of Economic Affairs 2014), two thirds of which were incinerated. On the other hand, the waste occurred at food processing level (about a fifth of the total) was used almost exclusively as animal feed (Soethoudt 2013).

The Netherlands is at the forefront of efforts to measure and report on food loss and waste (Champions 12.3 2017). These efforts centre around academic and research institutions supported by the government, such as Wageningen University & Research (WUR), that is involved in several national and European programs to reduce food waste. In addition, the Netherlands is currently a pilot country in the REFRESH program, implementing VA approaches to reduce food waste (REFRESH 2017).

Actors in the food supply chain have signed **VAs** in collaboration with the government to implement food waste prevention, recycling and reuse policies. In January 2017, efforts to connect initiatives against food waste culminated in the creation of the Taskforce for Circular Economy in Food (TCEF). This coalition of food companies, public and social enterprises aims at creating a unified framework for agreements between companies and the government to reduce food waste. In the second half of 2017, the TCEF has proposed the Netherlands' first national strategy and **roadmap to jointly transition to a circular economy in food** (Circulaire Economie 2017b). The TCEF operates as part of the program "The Netherlands Circular in 2050" (Circulaire Economie 2017b).

5.3.2 Overview of the policy: from the Sustainable Food Platform to the Taskforce for Circular Economy in Food

The Sustainable Food Platform

The question of sustainable food policy has been on the Dutch agenda since the early 2000s. In 2008, the “Policy document on sustainable food” (Rijksoverheid 2008) set the basis of the Dutch policy on food waste, and was part of the overall government efforts towards sustainable development. The goal was to place the Netherlands in the frontline of sustainable food systems, including food waste reduction but also more efficient use of water, and less use of raw materials along with less CO₂ emissions, etc.

The document also established the Sustainable Food Platform (SFP), which aimed to increase the range of market-oriented sustainable products by elaborating plans to improve production chains. The document clearly stated that parties do not enter a VA with an obligation, but with the moral duty to achieve concrete results. The plan also included **the aim to reduce food waste by at least 20% between 2009 and 2015** (Verburg 2008). To achieve this target, platform members shared information on existing processes and research to reduce food waste, while the government provided incentives and created the working conditions for real change.

In general, since VAs in the Netherlands are still under development, some of their elements (e.g. incentives for compliance, or sanctions for non-compliance) have not been defined yet. These aspects are expected to be finalised by the middle of 2018.

The Sustainable Food Alliance: a shift in the Dutch food waste policy

The Sustainable Food Alliance (*Alliantie Verduurzaming Voedsel*) is a collaboration of the Dutch Federation of Agriculture and Horticulture (LTO Nederland), the Federation of Dutch Grocery and Food Industry (FNLI), the Central Office of Food and Grocery Trade – CBL), the association of Dutch catering organisations – Veneca, and the Royal Dutch Association for the Restaurant, Hotel and Catering Industry – KHN, with the aim of making the food industry more sustainable¹⁸

While the Dutch government does not play an active role in this alliance, its representatives attend the meetings in order to stay informed of the advancement of the VA. The specific roles of the authorities and the Alliance are described in the Agenda drafted in 2013 (Ministry of Economic Affairs 2013). The SFA has an operational role and is in direct contact with stakeholders, while the Ministry of Economic Affairs is in charge of the policy aspects at national and international level. Therefore, businesses took the lead of the VA, and the government’s role in the agreement switched from catalyser to facilitator. According to Toine Timmermans (WUR), this switch guaranteed a certain independence of VA members with regards to the changes of the public policy agenda (Timmermans 2017b)

¹⁸ www.DuurzamerEten.nl [Accessed 14.12.2017].

The ambitions of the SFA is to **continue to scale up the successful projects of the SFP**. Dissemination and coordination are also key activities of the alliance making the involvement of relevant parties and sharing knowledge of great importance. Even for the scale-up of previous projects, the actors try to create as many links as possible with all stakeholders (farmers, animal feed companies, producers, catering industries, etc.) (SFA 2017d).

The main outcomes of the first years (2013-2017) of the SFA are (SFA 2017a):

- Increase in the level of sustainability throughout the chain (hotspots identified, instruments developed); the Sustainability Consortium defined Key Performance Indicators (KPIs) for product categories.
- Reduction in food waste and optimisation of residual flow: even if the total amount of food waste in the Netherlands did not decrease significantly, the SFA managed to raise awareness, collaborate with food banks, and widen the focus of efforts to contribute towards the creation a circular economy.
- Improvements in the meat supply chain, with results such as the setup of pilot projects, increase in chicken and pork (quality) standards in supermarkets, and a better consideration of environmental aspects.
- Improvement in transparency and communication about sustainability, especially among private companies.

Following these first conclusions, the SFA set up a new agenda for the coming years (2017-2020) with **four main pillars** (SFA 2017a):

- **Take the action to the next level.** This means that by 2020, the objective is for all food in the Dutch market to be more sustainable (with a focus on the meat supply chain), and for all companies (farmers, manufacturers, retailers and caterers) to be engaged in this objective. This goal is set to be achieved through informational meetings, annual roundtable discussions and stakeholder dialogues, as well as research on hotspots. The idea is also to have a proper food waste measurement.
- **Bring circular economy into the agrifood sector.** This is closely related to SDG 12.3. The objective is to eradicate the notion of waste from the supply chain, and to make all actors collaborate with each other to ensure this objective. To do so, the SFA stresses the importance of measuring, and joined with other groups working on the topic, like the TCEF and food banks, and developed the project CARVE (Snels 2017).
- **Transparency in the food chain.** Facilitation and stimulation of data exchange to them to consumers is furthermore a core objective.
- **Monitoring, reporting and communication.** This closely relates to the other pillars, since the actions include development and implementation of a sustainable food monitor, annual progress updates and sharing of best practices.

The “No Waste Network” is the communication platform of the SFA at the initiative of the Ministry of Economic Affairs, and involves third parties such as WUR Food & Biobased Research, the Netherlands Nutrition Centre and the Milieu Centraal Foundation (No Waste Network 2017).

The creation of the Taskforce for Circular Economy in Food

In January 2017, the government held the *Dutch Food Summit*, a multi-stakeholder discussion about the transition of food systems, which led to the **formation of the TCEF**. The role of the TCEF is to create links between all initiatives concerning food sustainability, and to help better organise the Dutch sustainable food system. Indeed, it has been noted that it would be more efficient to unit all the dispersed initiatives in one common entity. Through the TCEF, the REFRESH project created the **Dutch Framework for Action**, aiming to gather actors from the whole food and drink value chain (major retailers, brands, government and non-governmental organisations) to agree a coordinated and collaborative approach to tackling food waste (Bygrave et al. 2017). The ambition is to **rethink food systems with a circular economy approach**, by shifting the focus from the individual steps at which food is wasted to the whole system, including agriculture, supply chain, businesses, waste management, etc. Significant improvements can be achieved by looking at the bigger picture.

The TCEF operates as part of the program “The Netherlands Circular in 2050”, of which a milestone target is to halve consumption of raw materials between 2017 and 2030 (Circulaire Economie 2017b). The TCEF is composed of a coalition of companies, with the coordination of WUR and the collaboration of the SFA and the Ministry of Economic Affairs. A distinction is made between signatories (with specific targets) and supporters (who back the actions and pilots, but without any target) (Bygrave et al. 2017). Strategies of the TCEF are set by a Steering Committee, which is also in charge to safeguard a transparent process for communication and monitoring progress. A representative of the Dutch Ministry of Economic Affairs is in the Steering Committee.

Table 5. Objectives and impacts evolution through the VAs in the Netherlands.

Phase	Sustainable Food Platform (2008 – 2013)	Sustainable Food Alliance (2013 ...)	TCEF and Dutch Framework for Action (2017 – ...)
Signatories	Agriculture Industry Retail Catering Hospitality	50,000 farmers 100 animal feed firms 4300 super-markets 90% of catering market 40000 hotels	Supervised by Wageningen U&R. Includes SFA as well as other food industrials, retailers, caterers, NGOs and the Ministry of Economic Affairs.
Objectives	20% reduction in food waste 2009-2015 X Raise awareness about food waste √+	20% reduction in food waste by 2020 30% reduction in CO ₂ 1990-2020 Only sustainable meat by 2020.	Unify all initiatives to reduce food waste. Halve consumption of raw materials 2017-2030. Climate neutral food production by 2030.
Results	2009: 1.4-2.5 million tonnes	Toolbox to help companies optimize	Signatories take concrete actions against

Phase	Sustainable Food Platform (2008 – 2013)	Sustainable Food Alliance (2013 ...)	TCEF and Dutch Framework for Action (2017 – ...)
	2015: 1.77-2.55 million tonnes Special working group on food waste. Position paper on labelling. Joint definition of food waste.	all steps of production and make high-quality use of residual flows. Campaigns from the government, NGOs and the food sector. Not on path to achieve targets.	food waste and report progress transparently. Work on national strategy and roadmap for a circular food economy. Think tank, insights from REFRESH, share best practices, instruments and progress reports.

Sources: SFA signatories (SFA 2017b), agenda (SFA 2017a), results (SFA 2017c), TCEF signatories (WUR 2017), goals (Dijksma and Kamp 2016), results (Circulaire Economie 2017b).

Legend: X target missed ✓ target achieved ✓+ target exceeded.

The TCEF aims to work on the following:

- Defining a **connected strategy** (identification of hotspots /opportunities/ barriers, long-term roadmap, etc.);
- Developing the **transition Agenda Circular Economy Biomass & Food**. It is inspired by the national roadmap on circular economy;
- **Acquire business members**. The target is 100 signatories and supporters by the end of 2018, and 40 by the end of 2017;
- Launching **pilots to create further evidence** and support the realisation of existing ideas;
- Achieving **transparency on progress and actions**, especially regarding the reporting of signatories;
- Creating an **ecosystem for solutions**. The idea is to develop a “community of experts” and support the members’ innovations with tools;
- Set up a **portal of best practices**, to share best practices, business cases, experiences, etc. among the businesses;
- Framework for long-term **consumer awareness campaign**, connecting with existing initiatives and organisations.

Monitoring and evaluating are key elements of the TCEF. While companies commit themselves to reporting regularly, WUR (and where necessary other selected organisations) is responsible for the review of progress, taking into account confidentiality. (Bygrave et al. 2017).

Within this VA, **pilot projects** are carried out and supported by REFRESH in terms of capacity, knowledge, tools, network, etc. They have the ambition to take a collaborative and innovative research across the supply chain. The selection process for the pilots is currently being set up. There are already projects in good position to be selected for the first phase (e.g., “Oer-egg”, whose aim is to produce high quality eggs with sustainable practices, respectful of animals, by feeding chicken

with insects which, in turn, are fed on vegetable waste; or the project of the retail franchise Jumbo to run a living-lab pilot for six months to identify learnings and success factors to promote the sales of a wider category of food surplus products).

5.3.3 Analysis of the policy and challenges

Factors of success

A favourable current international policy framework

The VAs in the Netherlands are aligned with similar efforts by companies and governments across the globe to reduce food waste. The Netherlands play a key role in the UN's Sustainable Development Goal (SDG) 12.3 to halve global per capita food waste between 2015 and 2030. The Ministry of Economic Affairs of the Netherlands is furthermore involved in the global scene by providing financial support to Champions 12.3. The idea of Champions 12.3 was proposed at the conference "No More Food To Waste" in The Hague in June 2015¹⁹, and the Dutch government formally called for the creation of Champions 12.3 at the UN General Assembly's Sustainable Development Summit in September 2015 (Champions 12.3 2016a).

While the objectives of Champions 12.3 are not directly connected to the Dutch food waste policy, the Dutch government's involvement implies that:

- Dutch authorities deploy resources into sustainable food at both national and international levels;
- The synergies with international non-EU policies should be considered even when looking at a specific country within the EU.

Several members of Champions 12.3 are leading figures in the Dutch society and government, including Louise Fresco, the president of the Executive Board of WUR (Fresco 2017), and Hans Hoogeveen, ambassador and permanent representative of the Netherlands to the FAO (Champions 12.3 2016b) and (former) director-general of Agro in the Ministry of Economic Affairs (Hoogeveen 2012). Both of them are also ambassadors for the TCEF (Circulaire Economie 2017b), recruiting food companies to join the TCEF and implement transition agendas targeting a circular economy in food in the Netherlands.

Other members of Champions 12.3 are high-ranking executives of firms that have taken voluntary initiatives to reduce food waste, including in the Netherlands. The most prominent among these companies are Kellogg's, with 60% waste to landfill reductions between 2005 and 2017 (Bryant 2017), and Nestlé, with a commitment to eliminate waste to landfill by 2020 (Bulcke 2017).

Finally, the Ministry of Foreign Affairs of the Netherlands also funds the World Resources Institute and the Food Loss & Waste Protocol. The latter organisation coordinated the development of the Food Loss & Waste Accounting and Reporting

¹⁹ <https://www.government.nl/documents/reports/2015/06/25/chair-s-summary-report-conference-no-more-food-to-waste> [Accessed 07.02.2017].

Standard, a tool to quantify and measure food waste, and works to spread its use throughout the world.

Synergies with national policy framework

The Dutch VA is reinforced by increased consumer awareness developed in the past few years thanks to information campaigns and policies. The Ministry of Economic Affairs and the “No Waste Network” sponsored and engaged in information campaigns to reduce consumer waste (Vittuari et al. 2015). Research commissioned by the Ministry of Economic Affairs and the Ministry for Infrastructure and the Environment indicated that consumer waste decreased by 15% between 2010 and 2017 (Holshuijsen 2017).

Consumer awareness and sensitivity to food waste issues improved the **public image** of food businesses signing the VAs. This incentive added to the financial benefits thanks to a decrease in food waste, an increase in the operating efficiency, and the free consulting, in addition to R&D and information resources available to firms joining the VA.

In October 2017, a coalition led by Mark Rutte’s VVD party formed a new government in the Netherlands (Meijer 2017). The Minister of Agriculture, Nature and Food Quality, Carola Schouten, visited the TCEF at their home-base (Three Sixty), together with the EU-Commissioner Andriukaitis. Sigrid Kaag, the Minister of Foreign Trade and Development Cooperation met with Louise Fresco at Wageningen University on December 7th, 2017. Minister Kaag stated that the government would support Wageningen’s policies to reduce food waste, work to achieve the sustainable development goals and continue to cooperate with REFRESH (Sikkema 2017).

Existing limitations

Unstable food waste policy framework

Currently, the Netherlands does not have a specific national food waste reduction target (besides the SDG 12.3 commitment). In the new government coalition, further emphasis is put on the Climate Agenda and the development of a circular economy. A policy approach on circular economy seems to be the preferred approach to achieve food waste reduction in the Netherlands. The national roadmap, called “**A Circular Economy in the Netherlands by 2050**” presents a series of measures and goals aligned on five priorities partly based on the European Circular Economy Action Plan. The first priority, entitled “Biomass and food”, calls for “[...] combating (food) wastage”, and mentions the commitment to “minimise food waste” (Dijksma and Kamp 2016). Furthermore, the government places a focus “on monitoring, consumer information, revision of best-before dates, food banks, innovation through the Agri & Food and Horticulture & Cultivation Materials Top Sectors, the removal of statutory obstacles, and positioning this topic on the European and global agendas” (Dijksma and Kamp 2016). In January 2018, the Roadmap Circular Economy Biomass and Food report has been handed over to the Government, and is waiting for further implementation (Transitie Team Circulaire Economie, 2018).

As promising as this policy framework may be, it remains unclear what actions will be taken and over which timeframe, especially because 2050 is a long-term horizon. This will mostly depend on the political choices made in the coming years. In

this regard, sustainable food is not expected to be a central question in the “Trust in the Future” coalition government formed in October 2017. However, two priorities defined in the program of the largest party (the VVD) could have a direct impact on it, even if it is too early to draw any conclusion (Bruijn 2016):

- Actions against climate change. It can have a negative impact regarding food waste, due to the diversion of flows of edible food or food dedicated to animal feed towards anaerobic digestion.
- Sustainable livestock. Food waste could be a good driver to begin a transition towards a more sustainable livestock system.

Because of the unstable policy framework, it is complicated to have a long-term vision. Since the government will probably not play a driving role in the sustainable food policy voluntary cooperation between businesses and organisations such as the REFRESH Framework for Action is central.

Lack of an independent facilitator

Measurements and agreements concerning food waste in the Netherlands lack objectivity. Only the government and a small number of businesses report their own food waste statistics (Timmermans 2017b). WUR organises information sharing among food companies, and publishes studies using aggregates of confidential company data, but the process of building trust among actors of the food chain who stand in direct competition with each other is difficult, as is the goal of guaranteeing the partakers in the agreement against accusations of anti-competitive behaviour (Vittuari et al. 2015).

On the other hand, much of the information about food waste collected by private food companies is sensitive and confidential. Academic and research institutions such as WUR publish aggregated data that track the progress towards food waste reduction. The absence of a strong third party implies that information sharing among signatories and with the wider public is less efficient and recurrent than it could be (Soethoudt 2013; Vittuari et al. 2015).

Absence of non-compliance sanctions

The existing VAs in the Netherlands do not have built-in sanctions for non-compliance. This makes it possible for free-riders to sign the agreement, learn what other signatories share, and benefit from the public image improvements while making only minimal changes to their own behaviour. In addition, the absence of a third party verifying waste reduction statistics makes it difficult to verify whether the changes reported have indeed occurred (Circulaire Economie 2017b). In the TCEF VA model, a step forward can be made to build in incentives and sanctions for non-compliance by differentiation between signatories, supporters and non-members.

5.4 Comparative analysis

As anticipated in Section 5.1 Voluntary Agreements: definition and context, a VA is a non-mandatory alliance between any number of actors across different sectors, who come together to formally sign up to achieve a shared ambition or target.

The VAs for food waste reduction in the UK and the Netherlands were analysed as case studies to identify best practices and limitations of implementing and running such agreements, in addition to understanding ongoing dynamics within the national and international policy framework. This comparative analysis aims to put into perspective and highlight the learnings. Similarities and discrepancies show that even if each VA is intrinsically different, a number of factors can be extracted to explain the level of success, in particular:

- The policy background at national and international levels;
- The role of a third party and the interactions with the government;
- The profile of the signatories and their involvement motivations;
- An effective definition and measurement of the objectives.

5.4.1 Context and background

The **UK's VA**, called **Courtauld Commitment**, started in 2005 and is now in its fourth phase (Courtauld 2025). Each phase of the CC has built on the results and findings of the previous ones, in order to fine-tune its objectives and targets. For example, the first phase of the CC was focused on reducing packaging as well as food waste at household level, while from the second CC onwards, food waste targets were reinforced, and the scope was broadened to the entire supply chain (not just the household sector). As of today, the **CC is the world-leading VA on food waste** (WRAP 2016c).

Compared to the UK, the **Netherlands** did not set up one main VA. It instead set up **several VAs** such as the **SFP** and its successor, the **Sustainable Food Alliance (SFA)**. The scope of the Dutch agreements is slightly different from that of the UK one, because they work more generally on the **sustainability of the whole food system** (Duurzamereten n.d.). In 2017, the **TCEF** was created in the Netherlands to unify all voluntary efforts to reduce food waste into one large VA. Through the TCEF, the REFRESH project created the Dutch Framework for Action, aiming to gather actors from the whole food and drink value chain to agree a coordinated and collaborative approach to tackling food waste (Bygrave et al. 2017).

5.4.2 Comparison of the policy backgrounds

National policy frameworks

The policy frameworks of the two countries had an influence on how the VAs were carried out. **The food waste situation in UK and the Netherlands at the early start of the VAs was fundamentally different**, and may thus be used to illustrate the need for a widespread investment in the VA. In 2005, the UK lagged behind other EU countries in terms of actions to prevent food and packaging waste, and the resources consequently placed into WRAP correspond to a realisation by the government that the waste of food and packaging needed to be firmly addressed.

A key finding is that the success of VAs relies heavily on a country's policy context. While the VA in the **UK** was implemented **instead of legislation**, as a political move to avoid having the government implement binding legislation, in the **Netherlands**

the SFP was used as a **tool to achieve the 20% reduction target set by the government**. Although in Scotland and Wales quantitative objectives were set, in England there are no such objectives but only a direction (Scotl et al. 2016b). In England, the threat of government intervention acted as a type of sanction for non-compliance for the entire sector. This promoted the success of the first step of the CC (CC1), which set off a favourable dynamic for the achievement of subsequent CCs. The agreement has superseded the usual law-making process in the UK while in the Netherlands VAs were initially considered a tool to reach government targets. It should be noted, however, that VAs in Wales and Scotland were successful even though they were used as tools to assist regulatory measures, not to replace them. This shows that **VAs and regulations can interact in different ways**, depending on the policy framework of each country and that a specific setup is no guarantee of success.

Synergies with international policies

VAs in both the UK and the Netherlands pursue aims similar to the **Sustainable Development Goal (SDG) 12.3**, which calls for halving per capita global food waste at both retail and consumer levels, and for reducing food losses along production and supply chains (including postharvest losses) by 2030 (Champions 12.3 2017). The two VAs are also strengthened by the participation of experts working at the same time **within Champions 12.3 and at national level**. The Champions 12.3 is a group gathering governments' executives, businesses, international organisations, research institutions, farmer groups, and civil society organisations. It works towards achieving SDG Target 12.3 (Champions 12.3 2016b).

Cooperation with international organisations fosters the sharing of good practices and feedbacks. It also ensures that companies can rely on experts in charge of VAs in other countries to be aware of targets or regulations on food waste set by other organisations on a national or international level that may conflict with the national VA (Mahon 2017).

The VAs in the Netherlands and the UK may have benefited from European legislation and communication. Indeed, the **2004 Communication of the EC 'Partnership for change in an enlarged Europe – enhancing the contribution of European social dialogue'** (COM(2004) 557 final, 12 August 2004) calls for the formation of VAs. Article 154(3) TFEU states that the EC will suspend its legislative initiatives if social partners enter into VAs (EurWORK 2012). In 2016, the European Court of Auditors called for a coherent, ambitious policy on food waste in Europe with concrete objectives. It was partly in response to this call that WUR and the Dutch government initiated the TCEF (Timmermans 2017a). Since regulations at European level apply for all MS, the policy framework is similar for the Netherlands and UK, even if Brexit might cause the UK's legislative framework to evolve, while Dutch legislation often goes beyond EU recommendations. Note that, despite the favourable EU communications listed above, **EU laws have diverse direct or indirect impacts on food waste.**

5.4.3 The role of an independent convener and interactions with the government

The role of the independent lead organisation

In the context of VAs, a **“third party”** is an entity that is neither the government nor businesses, but an independent and neutral organisation in charge of delivering the VA. One of the most significant differences between VAs in the Netherlands and in the UK is the presence of **WRAP** as a strong third party with a dedicated role to coordinate the CC. By comparison, the TCEF and the SFA are forums for dialogue between stakeholders in the food sector but no entity is in charge of overall supervision. WUR performs studies on food waste reduction techniques and participated in the creation of the TCEF as part of the REFRESH framework for action, but does not supervise either the SFA or the TCEF.

The third party in VAs must **build trust** by guaranteeing the confidentiality of data provided by the signatories but also work to encourage participants who stand in direct competition to work together on a win-win situation. This includes protecting signatories against accusations of anti-competitive behaviour. WRAP facilitates the organisation of a **forum for exchange** on food waste reduction by stating at the beginning of each meeting the rules to be followed, and by certifying if need be in court that these rules were indeed followed (Mahon 2017b).

The comparison between UK and the Netherlands demonstrates how **the facilitation of the VA by an independent third party is a best practice**.

Government role and involvement

Since a VA is very often initiated by authorities, the question of **government funding** is central. Ensuring a public budget for a VA is likely to foster its success, but the question of **governmental influence** on the food waste reduction agenda and on access to data is particularly sensitive. Indeed, WRAP is financed by the government (although it is not managed by it), whereas WUR and the TCEF do not have specifically allocated budget for monitoring the Netherlands' food waste (REFRESH 2017).

In parallel of the financial issues, **shifts in political priorities** can endanger a VA if it is dependent on government support. The Dutch government redefined its food waste policy in 2012, which led to the end of the SFP. Even if companies decided to continue their collaboration in the SFA, the authorities played a less preponderant role. On the UK side, WRAP has always benefited from continuous government funding, and this stability was a key element to ensure a more long-term vision. Nonetheless, the critical point is that WRAP's independence from government in terms of supervision is clear to companies participating in the CC. These then trust WRAP with information they would not have provided to the government (Mahon 2017).

5.4.4 Profile of the signatories and involvement motivations

Representation of signatories

In both UK and the Netherlands, **VAs are strengthened by the representation of actors along the whole supply chain, which ensures that food waste is considered from all angles** during the VA's make-up (SFA 2017d). For example, the last phase of the CC, Courtauld 2025, includes 156 signatories representing more than 90% of the food retail market and working on the entire life cycle of products.

In the Netherlands, the SFA includes actors from all the supply chain: the Netherlands Agriculture and Horticulture Organization, the Dutch Food Industry Federation, the *Centraal Bureau Levensmiddelenhandel* (represents the collective interests of the supermarket sector and food service companies), the Association of Dutch Catering Organizations, *Koninklijke Horeca Nederland* (catering companies) and the Dutch Animal Feed Industry Association. The TCEF could arguably be considered as having a wider and more diversified scope of actors since it includes the SFA, many retailers, food and packaging industrials in addition to the government, REFRESH, NGOs, and financial and IT firms (WUR 2017).

Furthermore, within both countries' VAs, **the participating signatories are CEOs or high-level managers within their companies**, who have a direct influence on resource allocation. **This facilitates the decision-making** process for implementing the various measures laid out in the VAs.

It should be noted that in the UK, in addition to these high-level signatories, NGOs were invited by WRAP in the early stages of the CC to help define its agenda, including food banks that later participated in food distribution as part of the VA (Mahon 2017). Instead, in the Netherlands, the **choice was made not to solicit the participation of NGOs**. Rather, the government and signatory companies worked together to set forth a food waste reduction agenda. In the current phase (the TCEF model), NGOs participate as members.

Benefits for businesses: having a strong business case

The **VAs in the UK and the NL successfully communicated the potential benefits for signatory companies to join in their VAs, as they saw how their involvement had a strong business case**.

VAs in both the UK and the Netherlands result in **indirect financial gains** to companies due to the increased efficiency, the reduction in production that would otherwise go to waste and the free knowledge and skills obtained from other participants and from third parties. VAs also **strengthen customer relationships**, retention, **and loyalty** resulting from efforts by companies to help customers reduce food waste at home. Though this applies in particular to those who are directly in contact with consumers (retailers, caterers and others), there are also non-financial advantages for companies in helping their upstream suppliers reduce food waste because the collaboration can develop into another **win-win situation** (Hanson and Mitchell 2017).

One common point of the VAs in the Netherlands and the CC is that **the benefits for businesses do not build on direct financial incentives from the government to implement the policies suggested in the VA**. Experience has shown that businesses joined the VAs in UK and the Netherlands despite the absence of direct financial incentives, but such incentives could be used as a lever to encourage more active participation in the VA. In Courtauld 2025, signatories even agree to

give a financial contribution to WRAP. During the VA, participants' reductions in food waste and GHG emissions through both food donations and increases in efficiency are recorded, so one possibility may be to allow participant companies to deduct these reductions from their taxes (Dawson and Segerson 2008).

Lack of supporting legislation or non-compliance sanctions

As with the CC in UK, the VAs in the Netherlands do not have built-in sanctions for non-compliance. In certain cases, it was seen that this instils a sense of responsibility in the signatories to ensure implementation of the VA's actions, while in other cases, this fostered passive participation of signatories.

The large number of signatories in the Courtauld 2025 has led to inequalities in the involvement of companies. The risk is that **firms learn from good practices sharing and benefit from the public image improvements but make only minimal changes to their own behaviour** (economic problem of the "free-rider").

The context of the SFA is slightly different since there are a limited number of signatories working in collaboration without any third party. Therefore, **the success of the SFA strongly relies on the involvement of each member**. If the TCEF achieves its growth targets, companies may be tempted to passively hide behind the progress of their competitors which would go unsanctioned since neither WRAP nor the Steering Committee of the TCEF would oust a company from their respective VAs. It is the role of the leading organisation (WRAP or steering committee of the TCEF) to ensure no such situations exist, otherwise this may question the participation of some companies (Mahon 2017). One possibility to strengthen the VAs on food waste may be to introduce a minimum participation constraint to combat free riders (Carraro, Brau, and Golfetto 2001).

5.4.5 The importance of definition and measurement of the objectives

An illustration of the cooperation in a VA: the definition of the objectives

The participants to VAs in both countries were able to agree on a **common message** despite the intense level of competition in the food industry. The food industry, and particularly retailers, engage in awareness-raising campaigns and use their products to carry messages on food waste. Consumers proved receptive to these messages and this the right path to follow to reduce food waste in both countries, as the major contribution to it comes from the consumer sector (Netherlands Nutrition Centre 2014).

Besides cooperation, a VA works best if signatories collectively set **ambitious yet achievable targets with clear deadlines and metrics**. In each of its four phases, the signatories to the CC defined quantitative targets. Although always centred on food waste, the **priorities of the CC** were **adapted over the years**, based on the political and environmental scene regarding food waste at the establishment of each CC. For example, different focuses in each of the CCs are: **packaging waste in CC1, carbon impact, GHG, water emissions**, etc. This is a major reason why the CC is now in its fourth phase and has achieved most of the targets set in each of the previous steps. On the Dutch side, the **SFP** was started to achieve the **20% reduction target** imposed to the participants. These dissimilarities in defining the

objectives might be a reason to explain the **difference of success between the VAs**.

Importance of reporting consistency and transparency

VAs are most **effective if signatories provide precise data** concerning their food waste. Each signatory's data is **to be kept confidential**, but the process by which the data is aggregated should be transparent. In the context of the CC, signatories provide WRAP with data concerning their level of food waste and, then, **WRAP** aggregates the data and uses a **model to determine how much of the observed food waste reduction is directly influenced by companies' application of the CC**. The process by which WRAP aggregates the data is **audited by an external company**, though the data itself is kept confidential. WRAP verifies food waste statistics reported by individual companies but keeps that sensitive information confidential, and only publishes aggregated data about national food waste (as it did in 2007, 2009 and 2012).

On the other hand, statistics about food waste in the Netherlands are not aggregates of accurate individual statistics but extrapolations from a limited number of reports by a small number of businesses (Timmermans 2017b). During the **SFP** and **SFA**, studies were performed to assess food waste that relied only on **very limited company data**, first because only a fraction of companies participated in these agreements, and second because even the companies which participated did not necessarily reveal their food waste statistics. The 20% food waste reduction target between 2008 and 2015 was, therefore, measured based on food waste streams data (Vittuari et al. 2015). It is difficult to verify that changes reported have indeed occurred, and implies that **information sharing between signatories and with the wider public is less efficient** and regular in the Netherlands than in the UK (Soethoudt 2013; Vittuari et al. 2015). If WRAP and the CC have acquired a strong credibility, it is in part because they use a **transparent monitoring system**. For example, in Sweden the availability of transparent data is seen as a driver for setting up of a VA, both by the government and by companies (Tillväxtverket 2017).

5.4.6 Conclusion

VAs in the UK and in the Netherlands have been studied in detail and a number of recommendations have emerged for other countries wanting to introduce VAs to reduce food waste in the agri-food sector.

- The **national and international political context** greatly influences (either positively or negatively) the framework and success of a VA. Indeed, research demonstrated that political agenda and VAs are really tight –at least during the early phases. The VAs in line with national and international objectives may have more relevance than those that have unilateral objectives. VAs can be tools to implement legislation or alternatives to legislation.
- A VA's **funding scheme impacts its lifetime and agenda**. For example, VAs that receive governmental/private funding are influenced by national/company priorities and budgetary constraints. VAs receiving public funding are sensitive

to changes in political agendas. Privately funded VAs run the risk of being designed according to the largest contributors' priorities. VAs that rely on an appropriate balance between funding sources may be most stable and effective.

- The role played by a **neutral third party** (on top of firms and the government) is preponderant, notably to facilitate the accession of actors to join the VA, to ensure confidentiality of data or to supervise the agreement. The third party is also useful to ensure a wide representation of actors from the **whole supply chain**. This in turn is essential to tackle food waste from field to plate.
- Besides external pressure, the involvement of businesses depends on whether there is a strong enough **business case**: companies must gain benefits one way or another from joining a VA. A VA should find a balance to find **ambitious yet realistic targets** achievable by its signatories. The robustness and the transparency of data reporting are critical to ensure the credibility of the initiatives.

The UK and the Dutch VAs met with different levels of success in terms of magnitude of actions, quantitative results and number of actors gathered. Indeed, they are not built on the same ambitions and aspiration schemes, and do not rely on the same support and financial means. However, these two countries are at the forefront of Europe on the question of voluntary cooperation to reduce food waste. Their comparison shed light on the best practices to adopt and the essential issues to avoid.

6 Lessons learnt and recommendations

6.1 What do the comparative case studies tell us about policy tools against UTPs?

Chapter 4 described and compared two national-level regulations to tackle UTPs: the UK's **Groceries Supply Code of Practice (GSCOP)**, with its monitoring body, the Groceries Code Adjudicator, established in 2013, and Italy's **art. 62 of law decree 1/2012** ("Urgent regulations for fair competition, infrastructure development, and competitiveness"), whose observance is monitored by the Italian National Competition Authority (AGCM). The former is an evolution of an earlier voluntary approach, the UK Supermarket Code of Practice (SCOP), while the latter represents the adoption, in Italy, of the European Principles of Good Practices in the Food Supply Chain in Italy, as UTPs were previously addressed by means of the law on subcontracting. Due to their different adoption dynamics, and to the differences in the legal systems of the UK and Italy, these two measures achieved different outcomes. The analysis of points of strength and of weakness allowed to identify opportunities and threats to be considered when designing EU or MS legislation against UTPs.

If the EU wants to pass a directive on UTPs, the definition of the practices forbidden and of the subjects involved should be as general as possible, thus allowing MSs to adapt it to their specific market situation, avoiding complications in the prosecution phase. No limitations should be allowed based on the residence of the victim (inside or outside the country), or on her position within the food supply chain. Furthermore, by starting with an exploratory phase made of VAs among large retailers, MSs could collect information that will allow them to design better regulation later. Policymakers should also foresee sufficient funding for the monitoring body, carry out independent market investigation, and allow confidential claims. As for the **implications of UTPs in terms of food waste**, it is crucial to design an organisational structure for redistributing the surplus food generated by UTPs like order cancellations.

Based on the case studies, a set of specific **recommendations** are drafted below:

- 1 An **exploratory period** by means of VAs among large retailers, like the SCOP in the UK, could be beneficial to identify the right strategy to tackle UTPs and avoid a regulatory approach in case the suasive one emerges as effective;
- 2 Comprehensive **market surveys** should be implemented during the exploratory period to assess the effectiveness of the VA, and draw a better legislation later;
- 3 **Food waste levels** within the supply chain are a useful **indicator of UTPs** and could be used to assess the success of interventions to tackle UTPs: this requires measurement and transparency across the supply chain;
- 4 The **authority** responsible for identifying and fighting UTPs should be lean and focused, like the UK's GCA, while having access to experts, the power to launch own investigations, and sufficient funding, preferably its own (e.g., the money obtained from the fines inflicted);
- 5 The **definition of UTPs** should be as **general** as possible (e.g. "any conduct in which one of the parts of an agreement makes use of its market power to obtain

advantages that the other part would not obtain if adopting the same conduct”); indeed, many details cause persecution to become harder;

- 6 **Indirect suppliers** should be protected by the law, differently from what foreseen in the UK, as the effects of UTPs are transmitted upward in the supply chain;
- 7 **Foreign suppliers** (not only citizens of another EU MS) should be protected by the norms, e.g. by introducing mechanisms to ensure that the contracts signed abroad respect these norms, and by foreseeing, as a criterion to assess the authority’s jurisdiction, the fact that the good is purchased by a stakeholder based in the MS; indeed, the food supply chain is international in nature;
- 8 The possibility for the authority to start **independent investigations**, and for the victims to fill **confidential complaints**, not foreseen in Italy, is important to overcome the "fear factor";
- 9 **Fines** should be proportional to the size of the damage and/or to the turnover of the wrongdoer, like in the UK, otherwise they have no deterrent effect;
- 10 The monitoring authority could be empowered to declare the agreement and its effects **“null and void *ab initio*”**, and to ask for compensation from the wrongdoer without any need for the victim to claim to ordinary courts, unlike in Italy;
- 11 Comprehensive **surveys** comparing retailer **practices** should be carried out to allow rankings of **compliance**, as they are an effective way to ensure retailers compete to be the most compliant with the requirements of the legislation;
- 12 To address the potential **food waste** resulting from UTPs, the wrongdoer could be forced to sell the surplus generated within its selling points, and/or to buy the product involved from the victim for a minimum period. However, the investigation’s findings may arrive months or years later, so the opportunity to rescue the surplus is long gone. However, the idea that the fines should go to support food **rescue operations** remains valid.

In general, enforcement of EU standards, frameworks and recommendations should be **consistent amongst MSs**, otherwise there might be a risk of retailers moving their purchasing operations to EU MSs where UTPs are not regulated.

6.2 What do the comparative case studies tell us about VAs?

Chapter 5 described and compared two national-level VAs to tackle food waste: the UK’s **Courtauld Commitment (CC)**, which started in 2005 and is still in place today, and the Dutch initiatives now centralised around the **Taskforce for Circular Economy in Food (TCEF)**, born in January 2017. The former, funded by all UK Devolved Administrations and delivered by the Waste & Resources Action Programme (WRAP), has undergone four phases, the last being Courtauld 2025 (2016-2025). The TCEF represents the latest evolution of the Sustainable Food Platform, launched by the government in 2008, which became the Sustainable Food Alliance in 2013, with businesses taking the lead and the government acting as a facilitator. Due to the different timing and dynamics which lead to the launching of these VAs,

their outcome in terms of food waste reduction as of today are also different. While the UK has a long history of suasive policies to address food waste, with private initiative playing a prominent role, the Netherlands started exploring this route thanks to the catalyst role of the government; nevertheless, sizeable improvements have been taking place during the last years. The comparative analysis allows to identify implications of each approach, and draw recommendations for policymakers interested in creating an enabling environment for the signing of VAs.

The main messages emerged through the comparative analysis are provided below:

- 1** First, the national and international **political context** greatly affects (positively or negatively) the framework and success of a VA. Indeed, this research demonstrated that political agendas and VAs are very tight – at least during the early phases. The VAs which are in line with national and international objectives may have more relevance than those having unilateral objectives;
- 2** A VA's **funding scheme** impacts its lifetime and agenda. For example, VAs that receive governmental/private funding are likely to be influenced by national/company priorities and budgetary constraints;
- 3** The role played by a **neutral third party** (primarily firms, NGOs, or the government) is preponderant, notably to facilitate the accession of supply chain stakeholders to the VA, ensure confidentiality of data, or supervise the agreement;
- 4** Representation of actors from the **whole supply chain** is crucial to tackle the issue of food waste from the field to the plate;
- 5** Besides external pressure, the successful involvement of **businesses** depends on whether there is strong enough business case: companies must gain benefits, one way or another, from joining the VA;
- 6** A VA should find a balance to identify **ambitious yet realistic targets**, achievable by its signatories; the robustness and the transparency of data reporting are critical to ensure the credibility of the initiatives;
- 7** Finally, VAs can be a tool to implement better regulation but also an **alternative** to it, depending on the context and on their success.

6.3 What generalizations can be made?

The four case studies and the pairwise comparative analyses provided common insights to understand policy processes, thus identifying relevant aspects to consider, as well as practices to replicate (and why), and other practices to avoid (and why).

Since every MS has a different starting situation as for VAs and regulations to tackle UTPs, a **common EU framework** would be crucial to harmonize national approaches, guiding the MSs whose governments are going to take targeted actions. As for VAs, this common EU framework could define the best practices for launching them, including definitional standards, targets to be reached for achieving awards and/or environmental quality labels, etc. As for the regulation against UTPs, the framework

could include at least compulsory definitions, penalties as well as best practices to address the “fear factor” and other critical issues.

The framework should be common but **flexible enough**, because the market situation (concentration, fragmentation, vertical integration) differs in all countries, and all actors of the food supply chain should be involved in the process of policy design. Suasive approaches, like VAs, and regulatory approaches, like legislation to tackle UTPs, should not be seen as competitive or conflicting measures, but either as phases of a single policy strategy aimed at addressing food waste, or as connected interventions to be implemented in parallel, due to the specific advantages entailed by each of them.

Following the **methodological protocol** designed in this report, the analysis could be extended to the EU MSs not considered here, thus setting the starting point for better targeted policy intervention in the field of UTPs and/or VAs. The **recommendations** provided above may help policymakers design better-framed interventions, generating a positive impact on the prevention, reduction, reuse and valorisation of food and packaging waste. UTPs and the lack of vertical and horizontal cooperation in the food supply chain damages weaker actors, like small farmers and final consumers. Therefore, the prevention of unfair conducts and of food waste by means of either suasive or regulatory approaches can have an indirect positive impact on the whole society and the environment, beyond market stability. A **multi-stakeholder governance** of the food supply chain, facilitated by VAs involving a large range of actors, could generate benefits also in terms of reduced UTPs. Indeed, these actors could easily interact with one another, sharing the positive and negative reputation of virtuous firms and wrongdoers, and imitating successful innovations to address food waste. When this suasive approach is not successful, or drawing on this experience, policymakers might prioritize the introduction of stricter regulations against UTPs.

7 References

- Agri Rete Service. 2016. Osservatorio della cooperazione agricola italiana. Rapporto 2016. http://www.osservatorio-cooperazione-agricola.it/images/Rapport/2016/2016_Osservatorio_cooperazione_2016.pdf [Accessed 19.12.2017].
- Bardach, E. 2012. A Practical Guide for Policy Analysis. The Eightfold Path to More Effective Problem Solving. Fourth Edition. London (UK): SAGE Publications, Inc.
- Bruijn, J.A. 2016. Zeker Nederland- VVD verkiezingsprogramma 2017-2021. VVD. https://vvd.nl/content/uploads/2016/11/vvd_verkiezingsprogramma_pages.pdf [Accessed 07.02.2018].
- Bryant, J. 2017. Kellogg Company Food Waste Position Statement. https://www.kelloggcompany.com/content/dam/kelloggcompanyus/corporate_responsibility/pdf/2017/Food%20Loss%20and%20Waste%20Position%20Statement.pdf [Accessed 07.02.2018].
- Bryden, A., Petticrew, M., Mays, N., Eastmure, E., Knai, C. 2013. Voluntary agreements between government and business - a scoping review of the literature with specific reference to the Public Health Responsibility Deal. Health Policy (Amsterdam, Netherlands), 110(2-3), 186-197. <https://doi.org/10.1016/j.healthpol.2013.02.009>
- Bulcke, P. 2017. Waste and recovery. <http://www.nestle.com/csv/planet/product-life-cycle/waste-and-recovery> [Accessed 07.02.2018].
- Burgos, S., Gheoldus, M., Colin, F., Stenmarck, A., Hultén, J., Yohanan, L., Parfitt, J., Vittuari, M., Piras, S., McFarland, K., Wunder, S. (2017). "Systems maps and analytical framework. Mapping food waste drivers across the food supply chain", EU Horizon 2020 REFRESH. Deloitte, La Défense, France. <https://eu-refresh.org/mapping-food-waste-drivers-across-food-supply-chain>
- Burgos, S., Colin, F., Gheoldus, M., Graf, V. (2018). "Policy Brief: Voluntary Agreements as a collaborative solution for food waste reduction", EU Horizon 2020 REFRESH. Deloitte, La Défense, France.
- Bygrave, K., Rogers, D., Eisenhauer, P., Bruggemann, N., Timmermans, T., Cseh, B., Lopez-i-Gelats, F., Díaz-Ruiz, R. 2017. Frameworks for Action: Selection Process. EU Horizon 2020 REFRESH.
- Carraro, C., Brau, R., Golfetto, G. 2001. Participation Incentives and the Design of Voluntary Agreements (SSRN Scholarly Paper No. ID 275872. Rochester, NY: Social Science Research Network. <https://papers.ssrn.com/abstract=275872> [Accessed 07.02.2018].
- Champions 12.3. 2016a. About Champions 12.3. <https://champions123.org/about/> [Accessed 07.02.2018].
- Champions 12.3. 2016b. The Champions. <https://champions123.org/the-champions/> [Accessed 07.02.2018].
- Champions 12.3. 2017. SDG Target 12.3 on food loss and waste/ 2017 Progress report. <https://champions123.org/wp-content/uploads/2017/09/champions-123-sdg-target-123-2017-progress-report.pdf> [Accessed 07.02.2018].
- Ciconte, F., Liberti, S. 2017. Supermercati, il grande inganno del sottocosto. In: Internazionale. <https://www.internazionale.it/reportage/fabio-ciconte/2017/02/27/supermercati-inganno-sotto-costo> [Accessed 04.09.2017].

Circulaire Economie. 2017a. Programma 'Nederland Circulair in 2050'. <http://www.circulaireeconomienederland.nl/rijksbreed+programma+circulaire+economie/default.aspx> [Accessed 07.02.2018].

Circulaire Economie. 2017b. Taskforce Circular Economy in Food. Available Online: <http://www.circulaireeconomienederland.nl/ondertekenaars/taskforce+circular+economy+in+food/default.aspx> [Accessed 07.02.2018].

Competition Commission. 2008. The supply of groceries in the UK market investigation. http://webarchive.nationalarchives.gov.uk/20140402235418/http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/538.pdf [Accessed 09.02.2018].

Dawson, N.L., Segerson, K. 2008. "Voluntary Agreements with Industries: Participation Incentives with Industry-Wide Targets." *Land Economics*, 84(1), 97–114.

De Franceschi, A. 2015. "Recent evolutions regarding contractual restrictions on the assignment of claims. The need for a more systematic approach." *Osservatorio del Diritto Civile e Commerciale*, 2, 481-520.

Department for Business, Energy and Industrial Strategy. 2016. The Groceries Code Adjudicator Review: Part 2 - Call for Evidence on the case for extending the GCA's remit. <https://beis.gov.uk.citizenspace.com/gca/groceries-code-adjudicator-review-part2/> [Accessed 23.03.2018].

Department for Business, Innovation and Skills. 2011. Groceries Code Adjudicator – Impact Assessment. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31593/11-937-groceries-code-adjudicator-impact-assessment.pdf [Accessed 09.02.2018].

Dijkma, S., Kamp, H.G.J. 2016. A circular economy in the Netherlands by 2050. Ministry for the Environment and Ministry of Economic Affairs.

Ellen MacArthur Foundation. 2015. Courtauld Commitment. <https://www.ellenmacarthurfoundation.org/programmes/government/toolkit-for-policymakers/case-studies/courtauld-commitment> [Accessed 07.02.2018].

European Commission. 2009. Impact assessment guidelines. http://ec.europa.eu/smart-regulation/impact/commission_guidelines/docs/iag_2009_en.pdf [Accessed 19.04.2017].

European Commission. 2013. Green Paper "Unfair trading practices in the business-to-business food and non-food supply chain in Europe. COM(2013) 37 final. Brussels (Belgium): European Union.

European Commission. 2014. Tackling unfair trading practices in the business-to-business food supply chain. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM(2014) 472 final. Brussels (Belgium): European Union.

European Commission. 2015. Better regulation "toolbox". http://ec.europa.eu/smart-regulation/index_en.htm [Accessed 19.04.2017].

European Commission. 2016a. Report from the Commission to the European Parliament and the Council on unfair business-to-business trading practices in the food supply chain. COM(2016) 32 final. Brussels (Belgium): European Union.

European Commission. 2016b. Unfair business-to-business trading practices in the food supply chain". COM(2016) 32 final.

European Commission. 2017a. Inception Impact Assessment – Initiative to Improve the Food Supply Chain. Ares(2017)3735472 – 25/07/2017.

European Commission. 2017b. Speech at FSAI Conference on "Safeguarding the Food Chain" – 6th October 2017, Dublin Castle. In: European Commission. https://ec.europa.eu/commission/commissioners/2014-2019/hogan/announcements/speech-fsai-conference-safeguarding-food-chain-6th-october-2017-dublin-castle_en [Accessed 18.10.2017].

European Court of Auditors. 2016. Combating food waste: an opportunity for the EU to improve the resource-efficiency of the food supply chain. Special Report No. 34. Brussels (Belgium): European Union.

EurWORK. 2012. European social dialogue. Eurofound, Wyattville Road, Loughlinstown, Co. Dublin, D18 KP65, Ireland: EuroFound. <https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/european-social-dialogue> [Accessed 07.02.2018].

Fałkowski, J., Ménard, C., Sexton R.J., Swinnen, J., Vandeveld, S. (Authors), Di Marcantonio, F., Ciaian, P. (Editors). 2017 Unfair trading practices in the food supply chain: A literature review on methodologies, impacts and regulatory aspects. European Commission: Joint Research Centre.

Feedback. 2006. Food Waste Archives. <https://feedbackglobal.org/tag/food-waste/> [Accessed 07.02.2018].

Feedback. 2015. Food waste in Kenya: uncovering food waste in the horticultural supply chain. https://feedbackglobal.org/wp-content/uploads/2015/07/Food-Waste-in-Kenya_report-by-Feedback.pdf [Accessed 09.02.2018].

Feedback. 2016. Written evidence from Feedback to the EFRA committee enquiry on food waste. <https://feedbackglobal.org/wp-content/uploads/2016/09/Written-evidence-from-Feedback-to-the-EFRA-committee-enquiry-of-food-waste-12.09.16.pdf> [Accessed 09.02.2018].

Feedback. 2018 (publication pending). Farmers talk food waste: Supermarkets' role in crop waste on UK farms. Will be available at: http://feedbackglobal.org/wp/wp-content/uploads/2018/02/Farm_waste_report.pdf.

Food Ethics Council. 2012. Working better together: Lessons for effective government-business collaboration. https://www.foodethicscouncil.org/uploads/publications/Working_better_together_-_report_of_the_roundtable.pdf [Accessed 07.02.2018].

Fresco, L. 2017. September 20. Louise O. Fresco – homepage (in English). http://www.louiseofresco.com/HTML/UK_Index.html [Accessed 07.02.2018].

Goodwin, L. 2013. The Courtauld Commitment Phase 2 Final Results. <http://www.wrap.org.uk/sites/files/wrap/Courtauld%20Commitment%202%20Final%20Results.pdf> [Accessed 07.02.2018].

Goodwin, L. 2016. The root of the UK's food waste success story - Courtauld | WRAP UK. <http://www.wrap.org.uk/blog/2016/03/root-uk%E2%80%99s-food-waste-success-story-courtauld> [Accessed 07.02.2018].

Grievink, J.W. 2003. "The Changing Face of the Global Food Industry", presentation made at the OECD Conference, The Hague, 6 February 2003. http://ernaehrungsdenkwerkstatt.de/fileadmin/user_upload/EDWText/TextElemente/Handel/OECD_Food_Trade_Business_Trends-GrievinkPPT.pdf [Accessed 09.02.2018].

Groceries Code Adjudicator. 2014. Annual Report 23 June 2013 – 31 March 2014. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/322415/10143-GCA-Annual_Report_2014.pdf [Accessed 09.02.2018].

Groceries Code Adjudicator. 2016. Tesco breached Code. <https://www.gov.uk/government/news/tesco-breached-code> [Accessed 09.02.2018].

Hanson, C., Mitchell, P. 2017. The business case for reducing food loss and waste. Champions 12.3. https://ec.europa.eu/food/sites/food/files/safety/docs/fw_lib_business-case_en.pdf [Accessed 07.02.2018].

Her Majesty's Government. 2018. Government response to the Call for Evidence on the case for extending the Groceries Code Adjudicator's remit in the UK groceries supply chain. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/681882/groceries-adjudicator-consult-summary-of-responses-180216.pdf [Accessed 23.03.2018].

Hilty, R.M., Henning-Bodewig, F., Podszun, R. 2013. "Comments of the Max Planck Institute for Intellectual Property and Competition Law, Munich of 29 April 2013 on the Green Paper of the European Commission on Unfair Trading Practices in the Business-to-Business Food and Non-Food Supply Chain in Europe Dated 31 January 2013, COM(2013) 37 Final." *International Review of Intellectual Property and Competition Law*, 44(6): 701-709.

Holshuijsen, K. 2017. Food waste falls 15 percent in the Netherlands | NL Times. NL Times. <https://nltimes.nl/2017/05/24/food-waste-falls-15-percent-netherlands> [Accessed 07.02.2018].

Hoogeveen, H. 2012. Hans Hoogeveen. Yale School of Forestry & Environmental Studies. <https://environment.yale.edu/gem/advisory-board/hoogeveen/#qsc.tab=0> [Accessed 07.02.2018].

House of Commons. 2017. Food waste in England. Eighth Report of Session 2016-17. <https://publications.parliament.uk/pa/cm201617/cmselect/cmenvfru/429/429.pdf> [Accessed 07.02.2018].

International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) and Food and Agriculture Organization of the United Nations (FAO). 2016. *Mediterra 2016. Zero Waste in the Mediterranean. Natural Resources, Food and Knowledge*. Paris (France): Presses de Sciences Po.

Mahon, P. 2017. Interview with Patrick Mahon -Wrap UK. October 13, 2017.

Marks, S. 2017. Brussels declares war on supermarkets. In: Politico. <http://www.politico.eu/article/carrefour-tesco-asda-sainsbury-leclerc-intermarche-brussels-declares-war-on-supermarkets/> [Accessed 18.10.2017].

McKevitt, F. 2017. "Lidl becomes the UK's seventh largest supermarket." *Kantar UK Insights*. 22 August 2017. <http://uk.kantar.com/consumer/shoppers/2017/september-kantar-worldpanel-uk-grocery-share/> [Accessed 09.02.2018].

Meijer, B. 2017. New Dutch government sworn in after record negotiations. October 26, 2017. <https://www.reuters.com/article/us-netherlands-government/new-dutch-government-sworn-in-after-record-negotiations-idUSKBN1CV15D> [Accessed 07.02.2018].

Ministry of Economic Affairs of the Netherlands. 2013. Agenda for Sustainable Food 2013-2016. http://www.pbl.nl/sites/default/files/cms/publicaties/pbl-2016-sustainable-development-in-the-Netherlands_1966.pdf [Accessed 07.02.2018].

Ministry of Economic Affairs of the Netherlands. 2014. Facts and figures on consumer food waste in 2013. <https://www.government.nl/documents/publications/2014/01/30/facts-and-figures-on-consumer-food-waste-in-2013> [Accessed 07.02.2018].

National Farmers Union. 2016. Groceries Code Adjudicator's report on Tesco. <https://www.nfuonline.com/news/latest-news/groceries-code-adjudicators-report-on-tesco/> [Accessed 09.02.2018].

National Farmers Union. 2017. NFU members press concerns of unfair trading. <https://www.nfuonline.com/sectors/food-chain/food-chain-news/nfu-members-press-concerns-of-unfair-trading/> [Accessed 09.02.2018].

Netherlands Nutrition Centre. 2014. Consumer Food Waste-Fact sheet. https://mobiel.voedingscentrum.nl/Assets/Uploads/voedingscentrum/Documents/Professionals/Pers/Factsheets/VC_FSheet%20Voedselverspilling%20ENG_def%20LR-2.pdf [Accessed 07.02.2018].

No Waste Network. 2017. About NWN. <http://www.nowastenetwork.nl/en/nwn/> [Accessed 07.02.2018].

OECD. 2000. OECD Joint workshop on extended producer responsibility and waste minimisation policy in support of environmental sustainability.

OECD. 2013. Competition Issues in the Food Chain Industry. DAF/COMP(2014)16. Paris (France): OECD.

Osoro Cangas, C., Bygrave, K. 2016. Inventory and evaluation of effectiveness of existing approaches. Determine context and success factors of voluntary alliances. Horizon 2020 REFRESH.

Palladino, G. 2017. Interview with Giuseppe Palladino, UNIBO. October 30, 2017.

REFRESH. 2017. Appendix 2: Food Waste Figures. https://www.wur.nl/upload_mm/8/8/d/01914012-f5d4-46d1-81b0-ad6bc4363e39_Appendix%202%20Food%20Waste%20Figures.pdf [Accessed 07.02.2018].

Renda, A., Cafaggi, F., Pelkmans, J., Iamiceli, P., Correia de Brito, A., Bebbber, L., Clavel, S., Ruiz Peris, J.I., Estevan, C. 2014. Study on the legal framework covering business-to-business unfair trading practices in the retail supply chain. Final report prepared for the European Commission, DG Internal Market DG MARKT/2012/049/E. Brussels (Belgium): European Union.

Rijksoverheid. 2008. Policy document on sustainable food. <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/beleidsnota-s/2009/07/29/policy-document-on-sustainable-food/29072009notaduurzaamvoedsel-engels.pdf> [Accessed 07.02.2018].

Ronstadt, R. 1993. The Art of Case Analysis: A Guide to the Diagnosis of Business Situations (2nd Ed.). London (UK): Lord Publishing.

- Salo, E. 2016. Voluntary agreements for the achievement of sustainable development goals : Dutch Green Deals and WRAP agreements. <https://jyx.jyu.fi/dspace/handle/123456789/52151> [Accessed 07.02.2018].
- Scholz, R.W., and Tietje, O. 2002. Embedded Case Study Methods. Integrating Quantitative and Qualitative Knowledge. Thousand Oaks (USA): SAGE Publications, Inc.
- Seely, A. 2015. Supermarkets: the Groceries Code Adjudicator. House of Commons Library Briefing Paper number 6124.
- SFA. 2017a. Agenda 2017-2020 Sustainable Food Alliance.
- SFA. 2017b. Links in the chain. Sustainable Food Alliance. <http://www.duurzamereten.nl/over-ons/schakels.html> [Accessed 07.02.2018].
- SFA. 2017c. Raw materials and residual flows. Sustainable Food Alliance. <http://www.duurzamereten.nl/themas/detail/grondstoffen-en-reststromen> [Accessed 07.02.2018].
- SFA. 2017d. Sustainable Food Alliance. <http://www.verduurzamingvoedsel.nl/over-ons/over-alliantie-verduurzaming-voedsel.html> [Accessed 07.02.2018].
- Sikkema, A. 2017, December 7. Minister Kaag in Wageningen. <https://resource.wur.nl/nl/organisatie/show/Minister-Kaag-in-Wageningen-.htm> [Accessed 07.02.2018].
- Snels, J. 2017. CARVE; Innovative project to combat food waste in the agri-food chain. <https://www.wur.nl/en/project/CARVE-Innovative-project-to-combat-food-waste-in-the-agri-food-chain.htm> [Accessed 07.02.2018].
- Soethoudt, H., Timmermans, T. 2013. Food Waste Monitor (No. 1372). Wageningen UR Food & Biobased Research. http://www.nowastenetwork.nl/wp-content/uploads/Food_waste_monitor_ENG_Dec_2013.pdf [Accessed 07.02.2018].
- Stake, R. 1995. The Art of Case Study Research. Thousand Oaks (USA): SAGE Publications, Inc.
- Stefanelli, J., Marsden, P. 2012. Models of Enforcement in Europe for Relations in the Food Supply Chain. British Institute of International and Comparative Law.
- Stenmarck, Å., Jensen, C, Quested, T., Moates, G. 2016. Estimates of European food waste levels. Stockholm (Sweden): IVL Swedish Environmental Research Institute.
- Sustainable Food Alliance. 2017. About the Sustainable Food Alliance. <http://duurzamereten.nl/over-ons/over-alliantie-verduurzaming-voedsel.html> [Accessed 07.02.2018].
- Tellis, W.M. 1997. "Introduction to Case Study." *The Qualitative Report*, 3(2), 1-14.
- The Grocer. 2017. Forecast and promo failures driving waste warns Tacon. 24 November 2017. <https://www.thegrocer.co.uk/home/topics/waste-not-want-not/forecast-and-promo-failures-driving-waste-warns-tacon/560504.article> [Accessed 15.03.2018].
- Timmermans, T. 2017a, January 26. Dutch Taskforce connects initiatives against food waste. Wageningen University & Research. <https://www.wur.nl/en/newsarticle/Dutch-Taskforce-connects-initiatives-against-food-waste.htm> [Accessed 07.02.2018].
- Timmermans, T. 2017b. Interview with Toine Timmermans, Wageningen U&R. September 22, 2017.

Verburg, G. 2008. Policy Document on Sustainable Food. Ministry of Agriculture Nature and Food Quality.

Vidal, J. 2005. More than 30% of our food is thrown away - and it's costing billions a year. *The Guardian*. https://www.theguardian.com/uk_news/story/0,,1460183,00.html [Accessed 07.02.2018].

Vittuari, M., Gaiani, S., Politano, A., Aramyan, L., Gheoldus, M., Schneider, F. 2015. Review of current EU Member States legislation and policies addressing food waste. FP7 FUSIONS. Bologna (Italy): University of Bologna.

WRAP. 2009. WRAP's Halving Waste to Landfill agreement crosses the border as first Scottish council signs up. WRAP UK. <http://www.wrap.org.uk/content/wrap%E2%80%99s-halving-waste-landfill-agreement-crosses-border-first-scottish-council-signs> [Accessed 07.02.2018].

WRAP. 2010a. Courtauld commitment phase 1 signatories household packaging optimisation & food waste 2005-2010. <http://www.wrap.org.uk/sites/files/wrap/Courtauld%20Commitment%20signatories%20list,%203%20Mar%202010.pdf> [Accessed 07.02.2018].

WRAP. 2010b. Evaluation of Courtauld Food Waste Target – Phase 1. <http://www.wrap.org.uk/sites/files/wrap/Evaluation%20of%20Courtauld%201%20Food%20Waste%20Target%20final.pdf> [Accessed 07.02.2018].

WRAP. 2012. Courtauld Commitment 2 – signatory case studies | WRAP UK. <http://www.wrap.org.uk/content/courtauld-commitment-2-%E2%80%93-signatory-case-studies> [Accessed 07.02.2018].

WRAP. 2013a. Courtauld Commitment 2 Packaging and Supply Chain Waste. Banbury, Oxon, UK: Waste & Resources Action Programme. <http://www.wrap.org.uk/sites/files/wrap/Courtauld%20Commitment%202%20Packaging%20and%20Supply%20Chain%20Waste.pdf> [Accessed 07.02.2018].

WRAP. 2013b. The Courtauld Commitment. <http://www.wrap.org.uk/content/what-is-courtauld> [Accessed 19.04.2017].

WRAP. 2013c. Information sheet - The Courtauld Commitment. <http://www.wrap.org.uk/sites/files/wrap/Courtauld%20information%20sheet.pdf> [Accessed 07.02.2018].

WRAP. 2013d, April 23. The Courtauld Commitment | WRAP UK. <http://www.wrap.org.uk/content/what-is-courtauld> [Accessed 07.02.2018].

WRAP. 2013e, April 26. Courtauld Commitment 1 | WRAP UK. <http://www.wrap.org.uk/content/courtauld-commitment-1> [Accessed 07.02.2018].

WRAP. 2014. Courtauld Commitment 3 Signatories. WRAP. <http://www.wrap.org.uk/sites/files/wrap/CC3%20signatories%20list%20October%202014.pdf> [Accessed 07.02.2018].

WRAP. 2015. Courtauld Commitment 3: Delivering action on waste. Banbury, Oxon, UK: WRAP. <http://www.wrap.org.uk/content/courtauld-commitment-3-delivering-action-waste> [Accessed 07.02.2018].

WRAP. 2016a, March 10. The Courtauld Commitment 2025. <http://www.wrap.org.uk/content/courtauld-commitment-2025> [Accessed 07.02.2018].

WRAP. 2016b, March 10. What is Courtauld 2025? <http://www.wrap.org.uk/content/what-courtauld-2025> [Accessed 07.02.2018].

WRAP. 2016c, March 14. The Courtauld Commitment 2025 to Transform UK Food and Drink. <http://www.wrap.org.uk/content/courtauld-commitment-2025-transform-uk-food-and-drink> [Accessed 07.02.2018].

WRAP. 2016d, March 16. Courtauld Commitment 2025 Signatories. <http://www.wrap.org.uk/content/courtauld-commitment-2025-signatories> [Accessed 07.02.2018].

WRAP. 2016e, October 10. Courtauld Commitment 3 | WRAP UK. <http://www.wrap.org.uk/content/courtauld-commitment-3> [Accessed 07.02.2018].

WUR. 2017. Partners Taskforce Circular Economy in Food. Wageningen University & Research. https://www.wur.nl/upload_mm/9/e/d/3a4733ff-17de-4e14-b2a1-03c4021d34ab_Bijlage%201%20Deelnemers%20Taskforce%20Circular%20Economy%20in%20Food.pdf [Accessed 07.02.2018].

Yin, R.K. 2009. Case Study Research: Design & Methods. Thousand Oaks (USA): SAGE Publications, Inc.

YouGov. 2017. GCA – Annual Survey Results 2017. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/623564/GCA_Annual_Sector_Survey_Results.pdf [Accessed 09.02.2018].

Zero Waste Scotland. 2016. Zero Waste Scotland welcomes bold new targets on food waste and circular economy. <http://www.zerowastescotland.org.uk/content/zero-waste-scotland-welcomes-bold-new-targets-food-waste-and-circular-economy> [Accessed 07.02.2018].

8 Appendix 1

8.1 Background on case study research

The history of case study research is marked by periods of intense use and of disuse (Tellis 1997). Due to the controversial consideration by the academic world, case studies have been stereotyped as a “weak sibling” among social research methods for a long period (and in part also today) (Yin 2003). Nevertheless, they represent an effective tool to analyse complex interactions within a defined context, like a mix of policies affecting a specific issue. This is particularly true when, due to the recent entry into force of the policies, and the impossibility to carry out randomised control trials, quantitative analyses and/or systematic monitoring are not feasible.

Case studies consist of detailed contextual analyses of a limited number of events or conditions and their relationships. Researchers have used the case study method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods. Yin (2003, p. 23) defines the case study method as “*an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used*”.

Literature provides several examples of use of case studies. Case studies can be *holistic* or *embedded*, *single case*, or *multiple cases* (Ibid). A case study can be defined as *holistic* when it is shaped by a thoroughly qualitative approach relying on narrative, phenomenological descriptions; *embedded* ones involve more than one object of analysis and are not limited to qualitative analysis alone (Ibid).

A further important distinction is between *single* and *multiple case* studies (Ibid). On one hand, *single cases* are used to confirm or challenge a theory, or to represent a unique or extreme case; on the other hand, *multiple cases* follow a replication logic (Ibid). This is not to be confused with the sampling logic, where a selection is made out of a population for inclusion in the study. This type of sample selection is improper in a case study, as each individual case consists of a “whole” study, in which facts are gathered from various sources, and conclusions drawn on those facts.

Stake (1995) identifies *intrinsic* and *instrumental* case studies, where *intrinsic* ones are characterised by a need for information on a particular case, and *instrumental* ones are characterised by an objective that is something other than understanding the specific case (e.g. scientific or financial objectives). In Task 3.1.2, *instrumental* case studies will be used, as the final goal is to understand the impact on food waste of UTPs and VAs beyond the specific country contexts.

A further classification could be based on the epistemological status. Following Yin (2003), it is possible to identify *exploratory*, *explanatory*, and *descriptive* case studies. In *exploratory* case studies, fieldwork and data collection may be undertaken prior to definition of the research questions and hypotheses. This type of study has

been considered as a prelude to some social research. *Explanatory* cases are suitable for doing causal analyses. *Descriptive* cases require that the investigator begins with a descriptive theory, or faces the possibility that problems occur during the project. The type of case study used within T3.1.2 is of the *explanatory* type.

A case study can be used for different purposes: as a *research method*, as a *teaching method*, or as an *action/application* (Scholz and Tietje 2002). A further dimension relates to the gathering of data. Many authors (Stake 1995; Scholz and Tietje 2002; Yin 2003) agree that case studies should rely on multiple sources of information. Methods include direct and indirect participant observation, structured interviews and surveys, as well as experimental design, focused interviews, open-ended interviews, archival records, documents and scientific data from field, and laboratory experiments (Ibid).

Ronstadt (1993) describes four basic formats for case studies: *highly structured*, *short vignettes*, *unstructured*, or *ground-breaking*. A *highly structured* case is characterised by the use of known methods, and an extensive written report, and “best solutions” often exist; *short vignettes* are characterized by a well-structured case with excess of information where a “best solution” does not usually exist. *Unstructured cases* do not present a “best solution”, although a preferred practice or theory may exist. *Ground-breaking cases* provide new terrain for studies through completely new situations. Here, either *highly structured* case studies or *short vignettes* will be used, depending on the topic and the country, as in some cases no *ad hoc* policy has been implemented yet and no “best solution” can be identified.

Finally, as for the synthesis process, it is possible to identify two different strategies: *informal*, *empathic* or *intuitive* (which avoids reductionism and elementarism, and is preferred when the design is holistic), and *formative* or *method driven* (where the conclusions are supported by the methods chosen, which is preferred for embedded case studies) (Scholz and Tietje 2002). Here, informal synthesis processes will be preferred, due to the use of qualitative methods, the high complexity of the policy mix, and the large cross-country differences.

Table 6. Classifications of the case studies and approaches used within T3.1.2.

Decision node	Options related to the node
Design	Holistic or embedded Single case or multiple cases
Motivation	Intrinsic or instrumental
Epistemological status	Exploratory, descriptive or explanatory
Purpose	Research/teaching or action/application
Data	Quantitative or qualitative
Format	Highly structured, short vignettes Unstructured or ground-breaking
Synthesis	Informal , empathic, or intuitive Formative, or method driven

Source: Scholz and Tietje (2002).

8.2 Case study research: some operational elements

Most authors (Stake 1995; Scholz and Tietje 2002; Yin 2003) agree that case studies should use multiple sources of information and diversified research tools. Methods may include direct and indirect participant observation, structured interviews and surveys, experimental design, focused interviews, open-ended interviews, archival records, documents and scientific data from field and/or laboratory. The most methodological approaches usable within the case study Task 3.1.2 are the analysis of literature and documents (primary/secondary sources), focused/open-ended interviews with key stakeholders (food businesses, policymakers, etc.) as well as the analysis of survey data (if these are already available).

Yin (2003) suggests case studies to be based on a protocol/structure, and designed by taking into consideration different components, including a clear research question/problem, propositions, a unit of analysis, a logic linking data to propositions, and criteria for interpreting the findings. The protocol for the case studies of Task 3.1.2 is provided below.

The design phase is particularly important to structure the study, ensuring its construct, internal and external validity, and reliability. Following Yin (2003) these elements can be defined as follow:

- construct validity: establishing correct operational measures for the concepts studied;
- internal validity: demonstrating that certain conditions lead to other conditions, as well as requiring the use of multiple pieces of evidence from multiple sources to uncover convergent lines of inquiry;
- external validity: establishing the domain to which findings can be generalized;
- reliability: it refers to the stability, accuracy, and precision of measurement and data collection.