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Transforming public food procurement: Stakeholder understandings of barriers and opportunities for more localised procurement

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ABSTRACT

Green and sustainable food procurement has benefits for human health, the environment and economies. Public sector actors have purchasing power behind procurement decisions, and there is significant support for sustainably sourced food from consumers and the third sector. A sustainability transition in the public procurement of food would appear to be achievable, yet change remains incremental. This paper analyses supply chain stakeholder narratives about pathways to more localised public food procurement. Based on forty interviews with actors in the procurement supply chain in the South West of England, we examine the barriers and opportunities for more localised food supply and sourcing. Our findings indicate that if public food procurement is to become a viable, feasible and desirable market channel for operators of regional food businesses, we need to give greater attention to supply chain stakeholders' experiences of the interface between procurers and suppliers. Tensions exist between stakeholders' shared need for efficiency and logistical convenience, and their mutual desire for closer procurer-supplier relations and aspirations for a regional economic community. Results demonstrate that alongside the need for new physical and digital infrastructure, there is an urgent need to address socio-cultural barriers to change.

1. Introduction

The global agro-food system is implicated in societal and planetary challenges, including climate, biodiversity and health crises (Willett et al., 2019). Many argue that COVID-19 exposed a 'broken' food system (e.g. Shanks et al., 2020) responsible for negative environmental, social and economic impacts at multiple scales (FAO, Alliance of Bioversity International and CIAT, & Editora da UFRGS, 2021). To address these externalities, there have been urgent calls for food system 'transformation' (e.g. Webb et al., 2020). The public procurement of food is often invoked as a mechanism that could create radical change in food systems (e.g. Dumbleby, 2021; Morgan 2008; Morgan and Morley 2014). This is because sustainable and green food procurement practices can incentivise sustainable production (Swenson and Tartanac 2020), increase the availability of healthy food (Niebylski et al., 2014) thereby improving diets for consumers (Willett et al., 2019), and support rural development (Wittman and Blesh, 2017).

'Local food' is a contested term prominent in discourse around sustainable public food procurement (Molin et al., 2021). Localness can be defined by shortened supply chains between producer and consumers; by distance (and related 'food miles'); by geographical locality; and by political boundaries (i.e. food produced within a county or region) (Brune et al., 2023). Stakeholders in the food supply chain hold different views on what constitutes 'local food'. Consumers, for instance, tend to see 'local food' as relating to a specific geographical locality, rather than in terms of food miles (Brune et al., 2023). For public organisations locally produced food may be associated with the administrative region (Bloomfield, 2015). 'Local food' is a signifier of provenance and quality, but it is not necessarily a proxy for sustainability (Stein and Santini 2022).

Despite the challenges of defining 'local', in the context of food procurement the term is widely invoked as a pathway to food system transformation. In the UK policy aspirations for sustainable food procurement usually assume that more local, regional or domestic sourcing

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would be advantageous (Defra 2014; Dumbleby, 2021; FAO, Alliance of Bioversity International and CIAT, & Editora da UFRGS, 2021; House of Commons 2021) by prioritising local, small and medium-sized food businesses in procurement and enhancing the quality of food on the public plate. Such aspirations reflect emerging evidence indicating that localised procurement has the potential to add value to local economies (Thatcher and Sharp, 2008; Tregear et al., 2022), support sustainable food production (Morley 2021) and lower carbon emissions (Tregear et al., 2022).

The societal benefits of more sustainable procurement practices are alluring. Pursuing a pathway towards more sustainable public procurement of food is, arguably, more achievable than in other agri-food sectors, because the state has the 'power of purchase' (Morgan 2008) with which to catalyse desired change. This opportunity is reinforced by significant consumer demand (Kretschmer and Dehm 2021), public support (Kleine and das Graças Brightwell, 2015) and third-sector campaigning (Sustain and East Anglia Food Link 2003) for sustainably sourced food on the public plate. We can therefore see public food procurement as a metaphorical litmus test for the prospects of wider transformation in the agri-food system. If the state cannot achieve significant change in food procurement practices, then what hope is there for agri-food transitions in sectors where purchasing power and consumer demand are weaker?

The state's agency in achieving the societal benefits of sustainable food procurement underpins views of public procurement as a 'transformative instrument' (Stein et al., 2022: 1), as a 'game changer for food system transformation' (Swensson et al., 2021: 495) and a pathway towards to achieving United Nations sustainability goals (Stefanovic 2022). A significant body of literature has investigated how procurement criteria and initiative design can affect change (Alberdi and Begiristain-Zubillaga 2021; Bucea-Manea-Tonis et al., 2020; Neto 2020; Niebylski et al., 2014; Neto and Caldas 2018; Salvatore et al., 2021; Smith et al., 2016; Swensson and Tartanac 2020). Yet, despite such valuable policy design knowhow, calls for scaled-up and accelerated change in public procurement practices persist (FAO, Alliance of Bioversity International and CIAT, & Editora da UFRGS, 2021; House of Commons, 2021; Swensson et al., 2021). To achieve food system transformation through more sustainable food procurement we therefore need to ask 'why not', as well as 'how to' (Guenther et al., 2013). In other words, why has there *not* been a sustainability transition in public food procurement, and why do barriers to change persist?

Through the lens of a study conducted in the South West of England, we explore this question in the UK context. The UK food system is characterised by a high reliance on imported food, complex 'just-in-time' supply chains and a retail environment dominated by supermarkets (Lang 2020). Unlike much of the EU, nearly half of food the UK consumes is imported; in 2020, 46% was imported (Defra 2023a). Like the US, Britain has high volumes of sales of ultra-processed foods and the population has high levels of obesity (Hasnain et al., 2020). While exit from the European Union, the COVID-19 pandemic and war in Ukraine have created new challenges for the UK, concerns about national food security, supply chain resilience and diet long pre-date these crises (Lang 2020). Indeed, such concerns have led successive UK governments to initiate programmes to promote more sustainable food procurement (Morgan, 2008) and non-governmental organisations have campaigned hard for more sustainable food on the public plate (Sustain and East Anglia Food Link 2003; Stahlbrand 2016).

In this context, our exploratory paper has three aims. First, to provide an in-depth, empirical examination of stakeholder narratives of barriers and opportunities for more localised procurement. Second, to explore the tensions and convergence within these narratives. Third, to analyse why barriers to sustainability transitions in public food procurement persist and what might create change. In the next section, we review recent research on the public procurement of food, drawing parallels with the sustainability transitions literature and discussing how studies of public food procurement have conceptualised systemic change. In the

third section, research design, methods and the study site are introduced. The results of our case study follow. Finally, we explore why barriers to change persist, and what might catalyse a sustainability transition in public food procurement.

2. Sustainability transitions in public procurement

Studies of sustainable and green public food procurement (Molin et al., 2021; Stefani et al., 2017) have much in common with the emerging inter-disciplinary research agenda around sustainability transitions (Köhler et al., 2019). 'Green' and 'sustainable' public procurement are often treated as separate approaches in the procurement literature, but conceptual distinctions the two are fuzzy (Smith et al., 2016). We view both approaches as examining the pathways, actors and mechanisms involved in generating environmental, social and economic benefits of public procurement. In parallel, the sustainability transitions agenda considers the changes required to address grand societal challenges; such as, climate change, food poverty and biodiversity loss. Both the public procurement and sustainability transitions literatures recognise the need to address unsustainable consumption and production patterns. Dialogue between these literatures is embryonic (Giombelli and Triches 2020; Stahlbrand, 2016) despite application of conceptual frameworks from transitions studies to agri-food systems (El Bilali 2019a, 2019b; Bui et al., 2016; Ingram, 2018).

The sustainability transitions agenda examines multi-dimensional interactions between structures and agents in incumbent 'socio-technical' systems, seeking to conceptualise pathways towards large-scale, systemic change (Köhler et al., 2019). We can view the public food procurement as a socio-technical system in which food is conveyed through the supply chain, from producers to end-consumers. It comprises a combination of *technical* and technological aspects (e.g. regulatory frameworks, purchasing infrastructure, storage and distribution centres, and logistical schedules) and *social* processes (e.g. supplier relationships, stakeholder attitudes, organisational policies, and moral judgements about what constitutes good food for the 'public plate'). So, what drives change in this socio-technical system, and what prevents it? Below, we highlight two distinctive bodies of research on public food procurement, and reflect on how systemic change is conceptualised.

An extensive body of research analyses and evaluates food procurement governance structures. This includes policy design (Smith et al., 2016), sustainability criteria and strategies (Alberdi and Begiristain-Zubillaga 2021; Neto 2020; Neto and Caldas 2018; Salvatore et al., 2021), regulatory frameworks (Swensson and Tartanac 2020), policy impacts (Bucea-Manea-Tonis et al., 2020; Niebylski et al., 2014) and local government practices (Liu et al., 2019). Such work tends to take the nation as the unit of analysis and often relies on secondary sources (mainly policy and literature reviews), though there are exceptions (e.g. sectoral perspectives: Alberdi and Begiristain-Zubillaga 2021; Niebylski et al., 2014; use of primary data: Swensson and Tartanac 2020).

Examination of procurement governance highlights variability in scheme design and procurement criteria (Neto 2020; Neto and Caldas 2018). The positive impact and efficacy of sustainable and green procurement policies are identified (Niebylski et al., 2014). The empirical focus on policy co-ordinates tacitly positions governance and policy as drivers of systemic change. A 'conducive regulatory framework' is a key enabling condition (Swensson and Tartanac's 2020: 100366), and although there is recognition that transitions require political will as well as suitable infrastructure to implement policy (Smith et al., 2016), a broadly top-down discourse – in which the state, policy and governance actors are catalysts for change – emerges. The role of other supply chain stakeholders (e.g. of food business operators supplying public organisations) in systemic change is decentred.

Conducive governance structures and policy frameworks will undoubtedly play a critical role in any sustainability transitions in public procurement of food. Indeed, wider views suggest food system

transformation requires favourable policy conditions and technological innovation (Moberg et al., 2021). Yet, while the design of food procurement policy drives change, recent analysis of food policy interactions (Parsons and Barling, 2022) highlights how public food procurement exists in a wider domain of policy interventions, which results in positive and negative externalities (Parsons and Barling, 2022). After all, procurement policy is not a neutral instrument; socio-political contexts shape its implementation (Grivins et al., 2018). Macro-scale studies of public procurement tend to give insufficient attention to how policy works in practice, and do not examine how supply chain stakeholders' experiences of procurement structures and public organisations condition possibilities for change and innovation.

A growing body of research is beginning to address the limitations of a macro-scale analyses of food procurement (e.g. Bloomfield 2015; Mercado et al., 2016; Morley 2021; Sonnino and McWilliam 2011; Stahlbrand 2016). Based on studies of various supply chain actors' roles in a range of public sector initiatives³, understandings of the interface between public organisations and supply chain actors are emerging. Micro-scale examination of relationships between institutional and business actors highlight the active role of the supply chain actors (including procurers and suppliers) in the implementation of food procurement initiatives (Izumi et al., 2010; Lehtinen 2012; Morley 2021; Rimmington et al., 2006; Sonnino et al., 2014; Stahlbrand 2016). They demonstrate how policy implementation is flexible; identifying scope for manoeuvre by both governance and business actors, who interpret regulations (Grivins et al., 2018). This means there can be a gap between aspirations of procurement policy and operational practice. Business engagement with the public sector is shaped by cultural factors not just economic incentives (Mensah and Karriem 2021), so suppliers' perceptions of public organisations and procurement as a market channel matter. For this reason, successful procurement initiatives often rely on passionate individuals within public organisations capable of maintaining positive relationships with suppliers (Stahlbrand, 2016; Giombelli and Triches 2020), as well as public support and social capital (Mercado et al., 2016). However, cultures and structures within public organisations can inhibit greater, and more enduring, change (Sonnino and McWilliam 2011).

Despite aspirations for more sustainable public procurement, a variety of intransigent barriers to change remain: economics, bureaucracy, technical expertise and skills, legal issues, logistics, organisational dynamics and socio-cultural factors (English et al., 2020; Morgan 2008; Mossman et al., 2017; Sonnino, 2019; Parsons and Barling 2022; Raine et al., 2018). Given the literature suggests twin drivers of a sustainability transition in public food procurement – conducive governance structures and their effective implementation by supply chain actors – we contend that deeper understandings of the interface between procurers and suppliers are required. For instance, how might food business operators' perceptions of public food procurement shape their engagement with it? What values, objectives and challenges are shared across the supply chain that might act as a catalyst for change? This paper examines stakeholders lived experiences of public procurement to understand the possibilities for change from their perspectives. We see this as an essential component in building momentum towards a sustainability

² Including: producers and businesses (Lehtinen 2012; Mensah and Karriem 2021; Mercado et al., 2016; Morley 2021), distributors (Izumi et al., 2010), caterers (Rimmington et al., 2006; Sonnino and McWilliam 2011), consumers (Kleine and das Graças Brightwell, 2015; Pagliarino et al., 2021), procurers (Stahlbrand 2016) and local public-private alliances (Filippini et al., 2018).

³ Including: universities (Kretschmer and Dehm 2021; Giombelli and Triches, 2020; Stahlbrand 2016); schools (Bizarro and Ferreiro 2022; Grivins et al., 2018; Kliene and das Graças Brightwell, 2015; Pagliarino et al., 2021; Mensah and Karriem 2021; Sonnino et al., 2014); and hospitals (Bloomfield 2015; Sonnino and McWilliam 2011); as well as in cross-organisational schemes (Filippini et al., 2018; Izumi et al., 2010; Morley 2021).

transition in the public procurement of food.

3. Research design and methods

This paper presents results from a study examining the agricultural capacity of the South West of England (see Fig. 1), with a specific objectives to understand (1) the barriers to, and (2) the opportunities for, more localised procurement by public organisations in the region (Wilkinson et al., 2022). The research was commissioned by Cornwall and Isles of Scilly Local Enterprise Partnership, Devon County Council, the Heart of the South West Local Enterprise Partnership, the National Farmers' Union and Somerset County Council. Between August 2021 and March 2022, we conducted forty interviews across five supply chain groups with forty-one participants⁴ (see Table 1). Reflecting our funders' geographical interests, participants were located in Devon, Cornwall and Somerset. Semi-structured interviews were selected as the research method to provide exploratory and in-depth insights into participants' perceptions and experiences of public food procurement. We did not interview food consumers due to resource limitations.

Using contacts sourced from project partners, existing and snow-balled networks, and web searches, we invited over 120 organisations and businesses to participate. Potential participants were contacted with a research outline and interview question examples. For those expressing interest, we provided a consent form and information sheet. Informed, written consent was secured via an online form. A 60-minute meeting was scheduled on Zoom or telephone, but as interviews were arranged during a challenging period of COVID-19 'unlocking' we offered participants shorter interviews if they preferred. The average interview length was 49 minutes.

Interview topic guides focussed on barriers and opportunities to more localised procurement in the South West of England (see Wilkinson et al., 2022, p.19). Questions were piloted with project partners. Interviews were audio-recorded, transcribed and anonymised, prior to coding and thematic analysis in NVivo 1.6.1. Coding was iterative with additional nodes added to capture emerging themes (see Appendix 1). Two research team members crosschecked emerging codes and themes.



Fig. 1. Map of South West England. Source: Office for National Statistics licensed under the Open Government Licence v.3.0 (www.nationalarchives.gov.uk/doc/open-government-licence/version/3). Contains OS data © Crown copyright 2023. Contains LPS Intellectual Property © Crown copyright and database right (2023).

⁴ On request from one organisation, researchers engaged with two participants (one procurer and one caterer) in a single interview.

Table 1
Profile of participants. Source: authors.

Supply chain stage	Sub-type	Number of participants	Total
Producer	Producer	6	9
	Producer representative	3	
Processor or manufacturer	Dairy	6	9
	Meat	1	
	Fish	1	
	Mixed	1	
Procurer	Single organisation	5	10
	Multiple organisation	5	
Other supply chain actors	Trade Association	2	9
	Non-governmental organisations	3	
	Governmental organisation	3	
Caterer	Wholesaler	1	4
		4	

Project partners were not involved in data analysis.

The research received ethical approval from the University of Exeter Research Ethics Committee (ref. 489087) and the Health Research Authority (ref. 304781). Due to the terms of ethical approvals and our approach to informed consent, we refer research participants by the supply chain stage their business operates at. We elected not to refer to participants' business sector. Given the study's regional focus and its economic implications, we felt this would have posed a risk to participant anonymity. Specifically, we had concerns about participant identification by a 'motivated intruder' (i.e. a competent individual, with access to resources and using investigative techniques with a reason to identify individuals) (ICO 2021, p.14-15). In Table 1 we provide aggregated data on business sectors represented in each supply chain stage.

For our study, we defined 'regional' or 'localised procurement' as sourcing food produced in the South West of England, including the counties of Cornwall, Devon, Dorset, Gloucestershire, Somerset and Wiltshire. We did not present participants with an entirely rigid geographical definition, however. We wished to avoid issues defining 'local' and 'regional' at administrative boundaries, where 'foodsheds' (Peters et al., 2009; Schoolman et al., 2021) of public organisations reach beyond the South West. Rather than defining the precise extent of 'localised procurement', our central focus was on the barriers and opportunities for more localised supply to public organisations and more localised food sourcing via public procurement. Conceptually, we do not assume that that 'more local' always means 'more sustainable', and recognise the complexities of the 'local trap' (Born and Purcell 2006), which implies that that which is acquired locally is 'inherently good' (ibid: 196). Our framing of the research in terms of 'more localised' procurement reflects engagement with our research partners, who saw more localised procurement as a pathway to economic benefits for food business operators and to dietary benefits from higher quality food on the public plate. These potential benefits were viewed as at once local and regional; as valuable for individual suppliers, public organisations and consumers, but with multiplier effects for the South West region.

Our study, completed in March 2023, took place against the backdrop of discussion of changing public procurement practice in the UK. In 2016, an online platform, called a Dynamic Purchasing System, was piloted in Bath and North East Somerset (DFPNAB, 2021). This system allowed for the aggregation of fresh food from multiple suppliers into schools (DFPNAB, 2021). From 2018, the UK governments' public procurement organisation, the Crown Commercial Service planned to scale-up the pilot to the South West region, through the *Future Food Framework*, but this was delayed in 2020 during COVID-19 (House of Commons 2021). The Crown Commercial Service subsequently moved away from the *Future Food Framework* and adopted *Buying Better Food* as the route to a commercial solution for public sector food purchasing

(Crown Commercial Service 2021a). Pre-market engagement for a single, online access point for procurement took place began in September 2022, and contract notice was due in summer 2023 (Crown Commercial Service, 2021b). Our research was a study of supply chain stakeholder's perceptions of the barriers and opportunities to more localised procurement, not an exploration of the design of a Dynamic Purchasing System.

4. Results

This section identifies supply chain stakeholders' narratives of the barriers to supplying (4.1 and 4.2) and sourcing (4.3) food produced in the South West to public organisations in the region. It also describes how participants presented opportunities (4.4) for more localised procurement. We identify tensions between supply chain stakeholders' desire for closer producer-procurer relationships and the costs these entail. Although the idea of more localised procurement and a stronger sense of economic community had wide appeal, stakeholders also valued convenience and logistical efficiency. New aggregation structures and platforms were perceived as opportunities for more localised procurement; however, the need for culture change within public organisations and stronger relationships between supply chain stakeholders was also evident.

4.1. Barriers to supplying public organisations

Food business operators described public procurement as an ambiguous market channel with limited economic opportunities. They questioned whether supplying public organisations was financially viable and reported experiences of wider costs incurred in engagements with public organisations. Frustrations with organisational processes were demotivating. Surprisingly, a lack of confidence in the value proposition of public procurement was contrasted with supplying supermarkets, since food business operators tended to see public organisations as locked-in to supply from large wholesalers.

4.1.1. Financially unviable

Businesses operators had low expectations of the financial viability of public procurement. There was a lack of confidence in the value proposition of procurement as a market channel:

The biggest concern is: would they [public organisation] pay the price it costs to grow our vegetables, plus a profit? We need to make a profit. (Producer 3)

I've always struggled when we've tried to engage with public sector procurement, we very quickly run out of road with it. They don't pay, or they don't want to buy at that price ... (Processor 3)

There was broad consensus that low margins were a barrier for business operators considering supply to public organisations. This was unsurprising given prices of agricultural input costs outstripped output prices in the UK from April 2021 (Defra 2023b), however participants' comments went beyond concerns about rising costs, challenging the idea that supplying procurement was a viable option. In an effort to explain how greater regional supply could become possible, one participant suggested that:

I'm better off trying to put my price up elsewhere and giving away product as part of a –sort of– a contribution to society ... Producing a very high-end product that I can command more, and more money for, and saying 'those that can pay will pay, and then those that can't pay, I will give'. And public procurement sits in the middle of that. Public procurement is neither; they can pay, but they just can't pay anything like enough. (Processor 9)

For this participant, supplying public organisations with locally produced food was only conceivable as a charitable act. The notion of

subsidising food supplied to public organisations using profit from high-value products supplied to other purchasers is indicative of how unprofitable food business operators viewed public sector procurement. Such ideas illustrate how supply to public organisations felt unviable to regional business operators.

4.1.2. Ambiguous market channel and transaction costs

Entangled in narratives about the economic barriers to supplying public organisations were depictions of public procurement as an ambiguous market channel. Business operators described practical issues, such as contacting public organisations, locating decision-makers, and navigating procurement portals. These obstacles generated transaction costs, which constrained business engagement.

Public procurement was often something of a mystery for food producers. For example, participants expressed uncertainty about how to engage effectively with public organisations, describing challenges of bureaucratic processes, from making initial contact through to tendering for procurement contracts. Beginning a conversation with public organisations was difficult for businesses:

... we didn't really know where to start, procurement vendors etc. (Producer 6)

We're not hearing from them [public organisations], we don't know what they want. (Processor 8)

... it's very hard to find out who exactly to speak to, to progress things. And in the past we've met with a chef who's very interested in a particular department, and actually they don't have the final say in making the decisions ... (Producer 4)

A feeling of confusion and frustration was apparent, as was a desire for clearer, more meaningful interactions with public organisations. Given that, despite organisational contacts and the staff resources available to the research team, we were unable to identify or reach procurers at some public organisations, it is unsurprising that small, time-limited business operators faced barriers. Businesses with sufficient resources to navigate initial contact, reported challenges using procurement systems. For example, one food manufacturer explained how they had:

... registered on various [procurement] portals. Hugely complex forms ... some thirty pages of it ... And then I started getting opportunities to tender coming through for replacing light bulbs in schools ... how people like me who haven't got huge amounts of discretionary time and can't actually get best value out of it. Now I don't know whether that's a PICNIC – 'a problem in customer not in computer', so I don't know. I just lost the will to live. (Processor 2)

Participants highlighted transaction costs and frustrations with procurement portals. This is understandable, given that different contracting authorities use different online systems, and that portals often act as a one-stop-shop for all procurement, not just for food contracts. Despite the participants' wry and self-deprecating remarks it was evident they saw little value in procurement as a market channel for their products. Indeed, another participant contrasted procurement with supplying supermarkets, viewing the latter as a more motivating proposition.

I mean we're out there, trying to get SKUs [Stock Keeping Units] into ... Sainsbury's and Waitrose and Tesco's ... How much time do you then spend ... knocking on a very heavily closed door? (Producer 6)

Business operators were uncertain how to navigate the procurement market channel effectively. They encountered confusing and frustrating organisational structures and processes. Given such challenges businesses preferred to pursue opportunities available in other market channels.

4.1.3. Lock-in to large wholesalers

Food business operators perceived public organisations as locked-in to supply from national and international wholesalers. Public organisations economic and logistical needs were seen as the rationale for sourcing from large suppliers. Participants explained how this model was a barrier for smaller suppliers.

... [Public organisations] don't want to pay too much. And they want life to be logistically easy so they ... just get everything from one supplier, and those one suppliers are running such massive operations, they don't have time to piss around with people like us, let alone independent farms ... (Producer representative 3)

Many regional businesses felt the procurement market was inaccessible for all but a few larger suppliers. One suggested that regional businesses wondered:

How the hell am I going to get one of those contracts off the ground? It's virtually impossible, I can't break into that because it's dominated by the big boys. (Producer representative 1)

References to (inter-)national wholesalers as the 'big boys' was used to express a sense of unfairness in the procurement market. It conveyed that regional businesses were too small to compete. Such concerns were reasonable given wider consequences of the corporate concentration of power in the global food system (Clapp 2021). Another participant pointed out the irony that public procurement is:

... simply a bit of a bit of a closed shop; there was nothing very public about the procurement, it seemed to be who you knew, and if you were in the group, you were in, and if you weren't, well, you weren't getting in. (Producer 6)

A feeling of being shut out of the procurement market suggested that regional businesses did not feel they were able to influence change.

4.2. Business operators' perceptions of public organisations

Food business operators were mistrustful of public organisations claims they desired more localised procurement. They highlighted a 'say-do' gap between aspirations for localised sourcing, and the actual organisational behaviours they observed. Some food businesses operators saw public organisations approach to procurement as insincere, condescending and commercial. In other words, the authenticity of public sector demand for locally produced food was questioned.

4.2.1. A 'say-do' gap

Businesses saw public organisations claiming to want more localised procurement but in practice pursuing price-driven purchasing. This was viewed as hypocritical. One participant questioned the commitment of public organisations to source local food, saying:

At the moment it very much feels like it's a token ... that they [public organisations] need to be seen to be supplying local organic produce. But the majority of produce may not be local ... (Producer 4)

This participant implied that public organisations have an optic-driven interest in localised food sourcing. They perceived a 'say-do' gap between intentions to source locally produced food and procurement actions. This disjuncture was also apparent in descriptions of invitations to tender, where tensions between what was requested, and the available budget were sometimes seen as contradictory.

In tenders, there are a number of things that people will always put in the document as standard. But you know that, in a lot of times they pay lip-service to it because, ultimately, they are price driven. So they will want local sourcing, free-range food, organic, if possible. But here's the budget that we've got, which is absolutely impossible to make that happen. (Caterer 2)

Business operators questioned how much public organisations

wanted to source more locally. Although some procurers described specific examples of regional sourcing (see 4.3.1), business operators had an overall perception of the public sector as uncommitted to this strategy.

4.2.2. Commercial approach

Business operators mistrust of public organisations actions went in tandem with concerns about economic (in)justice in public procurement. Perceptions of the public sector taking a commercial approach to procurement were a barrier to more localised supply.

I think the problem is, is that you can go into those things, and they then put pressure on you for cost. It's alright while it's all going well, and then they ask you to drop it by 10%, and you just think no, get stuffed ... you've got to have a cost-benefit analysis of the time and effort put into doing it, just to be shafted ... (Producer 1)

Negative expectations about public organisations inhibited closer relationships between suppliers and procurers. One participant described feeling looked down on by the public organisations despite both businesses and the public sector having commercial drivers.

The way [public organisations] treat companies ... you get the feeling that these people feel that they're on a moral high ground because they're doing stuff for public good and we're doing it all for profit. And it would be really helpful if somebody could explain to them that that is just bollocks ... we can't function without profit, they can't function without budgets ... (Processor 5).

This participant experienced their engagement with the public sector as containing a contradictory, double standard in which businesses' commercial drivers were inferior to public organisations'. Procurers in our study openly acknowledged budgetary constraints (see 4.3.1), however given barriers faced by regional business operators engaging with public organisations, business operators may sometimes experience these limitations as part of a condescending attitude towards them.

4.2.3. Public sector capability for more local procurement

Participants questioned whether public organisations were capable of more localised procurement. They saw procurement as relying on simplified processes that generated dependency on food supply from large wholesalers. While recognising public organisations need for efficiency, businesses were critical of what they saw as the over-simplification of public sector procurement and food preparation.

[Procurement] has been set up in such a way that you've deskilled everything so much within the public sector, that there is no other way for them to be supplied than through one of the huge great big companies ... (Processor 7)

... this [localised procurement] is just so complicated, it could be twenty-nine things turning up tomorrow and three of them not turning up. And we're not highly paying chefs, we're paying people to open bags and put things in microwaves and deep fat fryers ... the system works, because we've simplified it. (Producer representative 2)

Participants contrasted the complexity of more localised procurement with public organisations need for low-skill activities. In essence, they highlighted that the structure of public sector procurement militated against more localised supply. Procurers' and businesses acknowledged the value of centralised systems for efficient resource and workload management (see 4.3.2), however, businesses also criticised procurement systems that they saw as locked-in to supply from large wholesalers.

4.3. Barriers to sourcing local food

Procurers acknowledged a range of barriers to sourcing locally produced food. They highlighted challenges balancing competing

procurement priorities and the value of the service provided by large wholesalers.

4.3.1. Balancing priorities

Procurers' highlighted tensions between price and quality in tender evaluation, and competing organisational priorities, as barriers to localised procurement. Regional sourcing formed part of quality criteria, along with freshness, and service-related factors, such as delivery and food safety. Most procurers described price and quality as broadly equivalent factors in decision-making, for instance:

It's usually about sixty-forty: 60% quality, 40% price and then those elements about local and what have you will come under the quality banner. (Procurer 3)

If we kind of look at how we would score a tender we'd probably throw 50% of the marks on to price, on commercial, we would put 40% on quality of service, product, and we would put 10% on sustainability ... every contract might have a slight variance on that. (Procurer 8)

There was, however, inter-institutional variation in weightings given to price quality. One procurer described a price-driven model saying, 'I think whatever conversation you will have with me, the answer is "budget"' (Procurer 6), while another described decisions shaped by provenance, saying procurement was 'very much around how much local we could choose, local and fresh' (Procurer 4). Within organisations, procurement decision-making differed across commodity categories:

... overall best value, which is price, quality and service. And those three, there's not a lot in them ... I wouldn't be saying that one's first, that one's second, because it depends on the commodity, but price, value, service ... and it's that overall value. (Procurer 4)

These inter- and intra- organisation differences in decision-making likely contribute to business operators' perception of a say-do gap in public sector procurement behaviours (see 4.2.1), since differences across organisations and commodities may not always be transparent to them. Furthermore, procurers also highlighted how broader institutional priorities shaped decision-making, indicating on-going dynamics within procurement practice:

People are kind of talking about they want local, they want fresh, they want sustainable ... all of that does at times come at a price point, so I know that some of the things that we [would] love to do we're not going to be able to ... it is a bit of a bit of a balancing act ... (Procurer 7)

Competing demands within public organisations constrained localised procurement. Although procurers acknowledged budget was a key limiting factor, they also described examples where regional supply was prioritised over price.

We haven't just looked for the cheapest option and gone with the big multinational to make it cheap for ourselves ... We could have got it [food product] a hell of a lot cheaper if we hadn't dictated a Southwest supply, an awful lot cheaper. But that that wasn't our driver. (Procurer 2)

Such examples superficially contradict business operators' perception of reliance on supply from large wholesalers (see 4.2.3), however procurers' economic consideration and variation in decision-making may obscure localised sourcing.

4.3.2. Value proposition of large wholesaler: service and confidence

The public sector's need for timely provision of food, at required volumes, constrains more localised procurement. Despite some procurers expressing a desire to source more locally, they acknowledge the value of large wholesalers for the public sector.

We would love to be able to use local producers, the issue we have [is] the capability of producing the amounts that we require and that consistency of service. (Procurer 3)

To obtain required food volumes reliably, procurers' highlight the importance of supplier management. Engaging with suppliers through a one-stop-shop saved administering multiple contracts and avoided the risks of suppliers not delivering.

The wholesalers that we use don't have the range that we need them to. If we could source local stuff through them we would. Because it makes sense to put all our spend through a single contract, rather than having to deal with multiple contracts, multiple suppliers, multiple invoices, orders etcetera. That's just down to range. (Procurer 2)

We go through these processes and go through these contractors, because we have to ensure there's a service. And you only need one supplier to let us down and it causes so many issues ... I think it's a great idea to use [local] suppliers [but] I just don't think the mechanisms are in place to do that ... (Procurer 3)

These procurers acknowledge dependence on large wholesalers; reflecting business perceptions of public organisations being locked-in to the incumbent procurement regime (see 4.1.3). Procurers also explained the value of centralised ordering systems, including access to ingredient information and just-in-time delivery.

The big players will ... tell you what the allergens are in the software for your [order] before you order it ... the butcher down the road won't have that. (Procurer 6)

[Kitchens] can't spend a huge amount of their day taking in deliveries from half a dozen different companies. Because every time somebody is taking in a delivery, they're not boiling the custard. (Procurer 6)

4.4. Opportunities for more localised procurement

4.4.1. Improving supplier-procurer relationships

Stakeholders across the supply chain valued personal interactions and relationships, reporting reciprocal benefits for procurers and businesses. Procurers' described added-value from personal interactions with suppliers. Suppliers highlighted the importance of having a point of contact and of continuity in exchanges.

Procurers linked personal relationships with suppliers with securing higher quality food products and contrasted after-sales care and communication from smaller suppliers, with that of large wholesalers. Closer relationships furnished procurers with supply chain information, which was especially valuable when products were out of stock or pricing changed.

You get a better product and a better outcome at the end if you have a personal relationship with people. Sometimes that can be difficult, but I think having a conversation with people ... means that they go above and beyond for us, and we'll go above and beyond for them. (Procurer 1)

The pandemic showed us that with some of those big boys you're just a bit of a number, sometimes, and they don't care ... But the local ones are like, this is my bread and butter, we need to make sure we look after them, and they make sure they get it to you. So, it's all about that service. (Procurer 4)

Reflecting similar values, narratives of food business operators highlighted the importance of dialogue and personal contact in building relationships with public organisations. As one participant put it:

The advantages [of localised supply], I would say [is] the relationship aspect. Whereas, at the moment, we rely on a wholesale network to build those relationships [with public organisations], so a lot of the time if we have got supply, we don't even necessarily know where it's going into ... (Processor 6)

In contrast to a model where producer and procurer are disconnected, personal interaction between businesses and contacts at public organisation were viewed as key to developing mutually beneficial

arrangements.

... having enthusiasm of the person within, whether it's a school, academy or hospital. These people need to understand why. I think that's absolutely critical. They need to understand the reasoning behind it. And also, I think we're a great benefit to the schools. They could have a relationship with the farm. They could relate with the farm. (Producer 1)

For business operators, longer-term relationships with public organisations were desired, but as we have described in 4.1, there were significant barriers to establishing these connections. Where procurers may be used to navigating impersonal processes and systems, regional food business operators described working relationships structured around regular meetings.

Supplier relations ... to me, that's one of the long-term key things ... certainly for our suppliers producing [food product] in the region which we're taking in, we offer month six monthly meetings ... I think that's quite key to trying to develop those relationships ... (Processor 1)

Given the importance of personal connections and relationships to both procurers and suppliers, we inferred that spaces for supplier-procurer interactions could create opportunities for more localised procurement. For instance, meet-the-buyer events could help demonstrate sincere commitment to localised sourcing (see 4.3.1), and provide food business operators with opportunities to build contacts with procurers.

4.4.2. Local sourcing within existing systems

Although business operators questioned public organisations capacity for more localised food procurement within current institutional structures (see 4.2.3), procurers highlighted some scope for increasing levels of sourcing from regional businesses within the incumbent procurement regime. These opportunities arise from local sourcing in parallel to, and through centralised wholesaler systems, as well as via supplier engagement.

We use [business name] as a wholesaler but we won't use it as a one-stop-shop. So we would use local supply chains as well to get our other products, like fruit and veg, fish and meat ... (Procurer 7)

We dictated that the [food product], for example, had to be from a Southwest supplier, so it comes from [regionally-based business]. So that's who we used to use directly. But [regionally-based business] then supply into [wholesaler] and into us. So, we're still mandating certain suppliers, but we're getting the benefits of just having to deal with just [wholesaler] as opposed to all of the different subcontractors. (Procurer 2)

Given business operators perceptions of the procurement market channel as unviable and ambiguous (see 4.1.1 and 4.1.2), effective communication of tenders was seen as essential. Procurers saw pre-market engagement as a means to make procurement more accessible.

Public sector procurement is notoriously bureaucratic and paperwork heavy. So sometimes it's too difficult to engage or they [suppliers] don't want to engage. For [public organisation] we did hand hold, some some people [suppliers] to go through that paperwork, to make sure they understood it ... (Procurer 5)

We want to make sure that suppliers that don't have the bandwidth to be looking every day for these opportunities ... know they are coming. So there's a lot of pre-procurement work ... (Procurer 7)

Procurers understood the resource limitations of smaller food businesses. Support with the tendering processes reduces transaction costs for business operators, making the market channel more accessible. Resources constraints (see 4.3.1) limit the scale of support procurers are able offer. Enhanced investment in pre-market engagement could improve business understandings of opportunities to supply public organisations.

4.4.3. Pooling and aggregation

Supply chain stakeholders saw new intermediaries and procurement structures as an opportunity for more local procurement. They suggested a regional processing unit or distribution hub could aggregate food produced in the region, providing an alternative procurement system.

I definitely think we need a food hub where producers could take their produce ... then the schools and hospitals can go in. They've got one place to put their order in and they've got one delivery of the milk, the meat, the vegetables. Even the processed things. Maybe on that site you could do the processing as well ... The whole infrastructure just needs investment to localise food. We can do it. There's the will. (Producer 3)

The idea of a food hub appealed to businesses because they saw new structures as enabling more profitable contracts, reducing administrative burdens, and supporting access from smaller businesses.

I am assuming that that processing unit would buy the product from [us], and that would be the end of that transaction. And that hub would be buying produce from a number of different suppliers. So, in effect, that hub would just become a customer ... a processing customer. (Producer 4)

I think that we really need to go back to where we were almost 100 years ago - where you all feed in and it all gets shipped out ... because that's the only way it's going to support small businesses to then become bigger enterprise[s]. (Producer 1)

The description of a processing unit as a 'customer' articulates a vision of a financially viable entry point to public food procurement. In contrast to perceptions of procurement as unviable (see 4.1.1) and locking out smaller businesses (see 4.1.3), there was optimism that a regional processing unit could improve supply of food from the South West into public organisations in the region. The potential benefits of hub structures for public organisations were also signalled.

If you're going from producer to processor to manufacturer to wholesaler to contract caterer, there's a lot of people that have to make their margin ... If you've got a procurement structure that is allowing a contracting authority to buy off a platform, or to buy through a distribution hub locally and they're directly going to the producer ... and maybe there'd be a processor involved as well ... that's certainly a lot less people that have to take that margin. (Other supply chain actor 3)

While, in principle, there were mutual financial benefits of a regional processing unit, participants were well aware that such infrastructure would require significant investment. Despite potential cost-savings procurers expressed concerns about whether a food hub could secure required product volumes while simultaneously emulating the level of service received from large wholesalers.

If there was a mechanism that allowed every producer of carrots to be involved in this hub, then we would sit here and have that confidence that we could go to that hub and utilize their carrot contracts so to speak. (Procurer 3)

Your smaller people have got to not only get the price right, they've got to get the after-sales right, and then they've got to get the delivery right too ... So it's much more than just being the best value sausage, it is at what time do you get it there and that information for the food safety ... and everything else ... (Procurer 6)

Since the value of proposition of large wholesalers includes centralised ordering, logistics and food safety, if new intermediaries were to provide a genuine alternative they would need to provide a comparable service for public organisations. This would likely require substantial resources.

There's an enormous backup team behind the big players making sure they stay the big players. And there's going to have to be a massive investment on the part of the smaller players to be able to compete in that market. (Procurer 6)

However, it was clear that unlocking procurement for regional businesses is not just about financial investment in new infrastructure but fostering social connections between suppliers and procurers (see 4.4.1) and improving communication of opportunities (see 4.4.2).

5. Discussion

Sustainable public food procurement offers a range of societal benefits, but barriers to change persist. Results from our case study highlight a tension between supply chain stakeholders need for just-in-time systems and their desire for relations of economic community. We contend that systemic change in public procurement will require operational solutions that integrate the convenience of just-in-time systems while at the same time enabling stronger connections between supply chain actors.

5.1. Why do barriers to more sustainable public procurement persist?

First, the economic viability of greater regional supply and sourcing of food limits more localised procurement. In line with previous research examining barriers to sustainable food procurement (e.g. [Morgan 2008](#); [Lehtinen 2012](#); [Izumi et al., 2010](#)), both procurers and food business operators in our study described economic factors shaping their decision-making. However, our results highlight how business concerns about the viability of public procurement are coloured by their lived experiences of navigating the market channel, the transactions costs associated with procurement portals, and how negative perceptions of public organisations effect their engagement.

Studies of agri-food transitions have tended to overlook the role of firms and industries in change ([El Bilali 2019a](#)). This is partially reflected in examination of sustainable public food procurement. Although micro-scale analyses highlight the agency of supply chain actors in procurement initiatives (e.g. [Morley 2021](#); [Rimington et al., 2006](#); [Stahlbrand 2016](#)), food business operators' perceptions and experiences of public procurement have not been examined in sufficient depth. If procurement is to support a sustainability transition in the food system, the implementation of procurement policy and use of new infrastructure will require significant buy-in from business operators. Our results indicate that, in winter 2021/22, some food business operators in the South West of England held a legitimate perception of food procurement as an unviable and ambiguous market channel, and were mistrustful of supplying public organisations. These legitimate concerns –which could be seen as a consequence of a 'cost-based contracting culture' ([Morgan and Sonnino 2013](#): 71) in the public sector– must be addressed if a sustainability transition in the public procurement of food is to be achieved. A better understanding of business' lived experiences of this market channel will be essential to business engagement with new infrastructure and policy. There will be work to undo businesses negative experiences and perceptions of public food procurement.

Second, barriers to more localised procurement persist as a result of their social dimensions. These have been under-emphasised in the extant literature. Our research highlights the critical importance of the 'soft' infrastructure –relationships and networks– to public procurement. Stakeholders mutually valued closer, more personal relationships. Procurers want the benefits of personal connections with suppliers while at the same time wanting the logistical convenience of the current system. Suppliers want more contact with procurement decision-makers to build enduring business contracts. The costs and resource implications of building networks inhibit deeper connections. To create an ecosystem in which procurer-supplier relationships could be meaningfully improved, public organisations must address perceptions of a 'say-do' gap in their behaviour. They must demonstrate commitment behind claims they desire more regionalised food supply. Examples of successful, localised procurement could be communicated more effectively, and greater pre-market engagement offers an opportunity to bring procurers and suppliers closer together. In a procurement supply chain that is, in

many ways, characterised by just-in-time systems and associated disconnection between suppliers, procurers and consumers, authentic connections –sincere, trusting relationships (West 2016)– between stakeholder need to be developed and sustained. Indeed, the desire for more personal connections in this context may be seen as a reflection of disconnection and lack of trust in the industrialised global food system (West 2016).

Third, barriers persist because the public organisations need to be confident they will receive the volume of food they require at the time they need it. Procurers and suppliers in our study recognised public organisations' need for one-stop-structures that aggregate food products, provide just-in-time delivery, and ensure food safety. Although some procurers actively sourced from multiple local suppliers (and their organisations bore the costs of doing so), food business operators tended to see public organisations as dependant on structures that locked-out smaller, regional businesses. New regional distribution hubs, processing units and associated digital platforms require significant investment, but could disrupt incumbent procurement regimes by providing public organisations with convenient, just-in-time delivery while simultaneously providing regional businesses with a single entry point to the procurement market.

Our findings demonstrate the challenges for sustainability transition in public food procurement. In this socio-technical system, our findings highlight that catalysts for change are often perceived as specific individuals or bodies, as opposed to top-down regulatory change. In line with extant studies highlighting the active role of supply chain actors in driving change (Izumi et al., 2010; Lehtinen 2012; Morley 2021; Stahlbrand 2016), we found that supply chain stakeholders in South West England tended to see social factors as offering the potential for radical, systemic change. There is no doubt, however, that regulatory and technical contexts shape procurement culture in the UK (Morgan and Sonnino 2013). We found that procurers felt limited by organisational priorities which governed their decision-making. Contextualising this feeling in the broader regulatory contexts in which public organisations operate, the legacy of regulation on procurement culture clearly inhibits change.

In summary, our research indicates that among a range of supply chain stakeholders there is demand for some of the characteristics and features of the current system of public food procurement, as well as for a move to a more localised system and the benefits that could bring. In other words, it highlights a desire and need for convenience and low-cost supply into public organisations, alongside relationships of trust and a mutually supportive economic community. The question is can we have both at the same time?

5.2. What could create change?

Our empirical material illustrates that sustainability transitions in the public procurement of food require arrangements capable of integrating just-in-time convenience with an authentic economic community and trusting relationships. New infrastructure that facilitates the aggregation of food products from regional businesses –through food hubs, processing and distribution units, or new digital platforms– is part of the solution. However, new infrastructure and technical fixes should not be fetishized as a catalyst for systemic change. After all, existing structures already provide a means to source some local food and there is scope for greater local supply through large wholesalers. The disruptive potential of food hubs and digital platforms is not simply that they are a replacement to existing procurement structures. Rather, they express stakeholder aspirations for closer relationships between suppliers and public organisations, ones that work financially and practically for a greater range of businesses. Delays to a trial of a Dynamic Purchasing Platform, changing governmental frameworks for progressing with a scaled-up pilot, and concerns about the start-up and ongoing costs of new digital infrastructure (Crown Commercial Service, 2021a) highlight the risks of relying on new infrastructure as a trigger for change.

Meanwhile, broader regulatory contexts and the legacy of cost-based procurement culture in the UK (Morgan and Sonnino 2013) continue to limit the localising of public procurement.

If public sector procurement is to be transformed and utilised as a lever for a transformation of the agri-food system, then this must be built through closer relationships between public procurers and operators of food businesses. As any large-scale change in public food procurement will require buy-in from business operators; their attitudes towards procurement as a market channel must be understood. Public organisations need to make clearer statements about their aims in relation to local food, and transparently follow through on ambitions. Culture change within public organisations will be central to establishing procurement as a desirable market for regional businesses. The public sector may have the 'power of purchase' (Morgan 2008), but food businesses have, what we could call, the 'sovereignty to sell', in other words a choice about which market channels they supply. Although new infrastructure should make public procurement a more appealing and accessible proposition, especially for small and medium-sized food business operators, some may remain averse to it, given past experiences and negative perceptions of public organisations. Sustainability transitions in public food procurement are as much about building trust and improving supplier-procurer relationships, as they are new infrastructure. While technical dimensions (regulation, storage, purchasing systems) shape procurement culture, our empirical evidence indicates that procurement supply chain stakeholders see the 'social' domain as critical for catalysing change.

6. Conclusion

This study adopted a regional perspective on the public food procurement in the South West of England. If public procurement is to be a viable, feasible and desirable market channel for regional food businesses and anchor institutions, creating space (and time) for personal relationships to develop outside the strictures of procurement portals is essential e.g. through networks and 'pre-market' engagement activities. Due to the regional focus of our study and the desire to maintain anonymity we excluded the business sector from our analysis, which we recognise may be seen as a limitation. Future research could bring together supply chain stakeholders to co-design the co-ordinates of productive procurer-supplier encounters from the point of view of from specific business sectors.

Sustainability transitions involve an interplay of social and technical factors. In the context of public food procurement this will require the integration of convenient, low-cost food, with a sense of economic community. However, ambitions for change should not idealise 'technical' solutions such as policy design or hard infrastructure as a panacea. The 'soft infrastructure' of social relationships is equally important. In this study, these were seen by supply chain stakeholders as driving change. Radical change in the public procurement of food will require dramatically different social relationships between supply chain stakeholders. Addressing the legacy of the incumbent socio-technical system on procurement culture requires closer, more sincere relationships between supply chain stakeholders.

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CRedit authorship contribution statement

Timothy J. Wilkinson: Conceptualization, Data curation, Formal

analysis, Methodology, Project administration, Writing – original draft, Writing – review & editing. **Caroline Nye:** Conceptualization, Formal analysis, Investigation, Methodology, Validation, Writing – review & editing. **Matt Lobley:** Conceptualization, Funding acquisition, Methodology, Writing – review & editing. **Harry G. West:** Conceptualization, Writing – review & editing. **Andrew Clappison:** Data curation, Investigation, Methodology. **Jed Hilton:** Data curation, Investigation. **Amanda Goodwin:** Funding acquisition, Project administration, Resources.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix 1. Study coding framework. Bold font denotes themes

Barriers to public procurement	Tenders	Attitudes to local food supply
Accreditation requirements	Criteria	Balanced scorecard
Administration	Length	Opportunities and advantages
Big players dominate	Specifications and law	Changes in standards/regulations
Collaboration issues	Future intentions	Cooperation
Consistency/quantity of supply	Other	Digital technology
Current contracts	Procurer	Expand processing capacity
Distribution	Producer	Flexibility
Dynamic procurement issues	Kitchens	Forward planning
Financial risks	Collaborative menu design	Frozen food
Food safety and labelling	Meal types	Greater engagement
General inconvenience	Menus	Greater producer co-ordination
Inability to supply at short notice	Evaluation	Innovation
Inefficient use of land	Menu planning	Less waste
Inflexibility of individuals or orgs	Numbers served	Strategies to facilitate supply
Kitchen capacity and equipment	Staff	Public buy-in
Labour	Skills	Relationship building
Lack of availability in area	Processors	Resilience
Lack of contacts in supply chain	Advantages	SME support
Lack of farming opportunities	Barriers	South West distribution hub
Lack of experience	Direct supply	Transparency
Processing limitations	Ingredients source	Value or price
Framework agreements	Processing capacity	What works?
Producer capacity	Procurement experience	Contingency plans
Quality criteria	Purchasing	Cooperation
Regulations	Range	Engagement and support
Scaleability	Supply regions	Greater flexibility
Seasonality	Sustainability	In-house procurement freedom
Standards	Volumes in	Middle person or hub
Storage	Volumes out	Understanding the product
Structural issues	Sustainability agendas	Visionary individuals lead
Transport and distribution	Spend	Willingness to invest
Uncertainty in farming	Tender or in-house	
Values of procurer organisation	Criteria	
Visionary individuals leaving	Length	
General capacity	Specifications and law	
Demand or pressure	Types of supplier	

Source: Authors.

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