From True Price to Food System Transparency:

Citizen Engagement Strategy Exploration

Faculty Business, Finance and Marketing
Research Platform: Transition Towards Sustainability
November 2025

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This project was commissioned by the Ministry Landbouw, Visserij, Voedselzekerheid en Natuur (LVVN).

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Acknowledgements
The authors would like to thank all participants who have helped shape and contribute to the project.

Datum
November 2025

Type project
Contract Research and Recommendation

VersionEN

Executive Summary

The Ministry of Agriculture, Fisheries, Food Security and Nature (LVVN) is committed to increasing transparency around the true costs of food production, recognising that current prices do not reflect environmental and social impacts. True Pricing is viewed as a promising tool to raise public awareness and promote fairer, more sustainable consumption. Following up on the recommended knowledge agenda for applied research from Earlier report “Upscaling True Pricing Impact in the Netherlands” (Joosten-Ma & Aragon Moran, 2024), Ministry LVVN would like to further explore the strategic factors for a Citizen Engagement Strategy. Previous research (Michalke et al., 2022) highlighted that public acceptance is essential for successful TP implementation but remains limited due to low awareness, affordability concerns, and lack of trust. This project aims to investigate the key strategic factors in order to build the foundation for the future strategy development.

The project was conducted between April and October 2025. It consists of three key elements: 1) The *literature review and desk research* covers over 60 academic papers, case studies, research reports, and policy documents; 2) *Qualitative in-depth interviews* with 15 experts from the fields of True Pricing, behaviour science, communication, societal transition theories and practices, business, and consumer organisations; 3) Five *citizen focus groups* covering a range of attitudes toward sustainable food, from cautious and price-sensitive consumers to those more motivated by environmental and ethical considerations. Together, these insights provide a robust foundation for the future development of a Citizen Engagement Strategy to advance food system transparency and support the wider transition toward fair and sustainable food systems.

Started with the focus on True Pricing and the related citizen engagement, we soon discovered that True Pricing could not be treated in isolation. Citizens and experts desire food system transparency and it value in food system transition. They view True Pricing as *one of* the tools in a broad set of means that could help transparency. If only presented in isolation, True Pricing risks being misunderstood as a price increase rather than a tool for fairness and accountability. When integrated as part of the food system transparency toolset effectively, it could contribute to the citizen engagement and increase the consistency and credibility. The project title “From True Price to Food System Transparency” reflects an important shift toward an integrated, citizen-centred citizen engagement approach.

The research findings have led to six preliminary **conclusions**[1]:

Firstly, whilst people are aware of the ethical impact of food choices and are supportive of the food system transition, the top drivers for food choices are primarily taste, health, and affordability. Among different ethical drivers, animal welfare seems to have more impact than climate change.

Secondly, there is a strong societal need for food system transparency. Both citizens and experts believe in its value for the sustainable transition. Labelling and quality marks are currently recognized most often as the main means.

Thirdly, True Pricing is seen as one of the means to support food system transparency that could be of different value for different parts of the ecosystem, among which as a guiding tool for business improvement and government policy making, as quantification support for labelling and quality marks, and as an educational and communication tool for citizen engagement.

[1] Within the time frame of the project, only qualitative evidences have been collected for some important elements. Further quantitative validations is need to draw firm conclusions and recommendations.

Fourthly, the “Light-Green” segment (those who are openminded to consider environmental impact but have not yet acted upon in their food choices) could potentially be the core target group for citizen engagement in order to reach the transition tipping point, while the “Dark-Green” segment (who have already acted upon environmental impact in their food choices) could be leveraged to advocate for new social norms.

Fifthly, government is expected to lead the citizen engagement program, while leveraging all key actors in the food ecosystem to play their respective roles. Independent authorities are critical as trusted information sources.

Lastly, clear goal setting, integrated toolset including True-Pricing, a two-way participatory approach, managing affordability, reducing reactance and preventing polarization, and researching and piloting approaches are the important principles to follow in developing a successful citizen engagement strategy.

With these conclusions above, we would like to make the following preliminary **recommendations[2]:**

1. *Broaden the focus from True Pricing to food system transparency:* Citizen engagement should extend beyond True Pricing to encompass the wider food system transparency agenda. True Pricing is most effective when combined with other instruments—such as labelling, quality marks, and impact information—within a coherent and standardized framework. TP implementation in public procurement and workplace catering help normalise practices and build momentum toward retail adoption.

2. *Ensure a structural, government-led and long-term approach:* Developing an effective citizen engagement strategy requires consistent government leadership, clear goal alignment among stakeholders, and long-term programming supported by sufficient resources and defined ownership.

3. *Target and tailor engagement by segment:* Consider focussing on the “Light-Green” group as the primary target for behaviour change, while empowering the “Dark-Green” segment as advocates to influence social norms. The “Prudent” group should remain informed through broad communication that reduces resistance without imposing pressure.

4. *Leverage and support key actors across the food ecosystem:* Adopt an ecosystem approach in which government leads and coordinates, while retailers, NGOs, farmers, producers, educators, investors, and media contribute through their respective roles. Enable these actors with supportive policies, transition finance, and fair market conditions to ensure success and manage resistance within traditional sectors.

5. *Apply engagement principles systematically:* Define clear behavioural goals, embed two-way participation, manage affordability with sensitivity, and design communication to prevent polarization. Pilot and test engagement approaches locally before national implementation to ensure effectiveness and scalability.

6. *Develop evidence-based value propositions*: Build engagement around citizens’ core food choice drivers (taste, health, and affordability) using validated quantitative insights. Position True Pricing as a transparency and policy tool, not a surcharge, and deliver emotionally engaging communication through trusted sources. Pilot initiatives such as school programs, food impact scores, and experiential events to foster participation.

7. *Phase implementation based on market readiness:* Roll out the citizen engagement strategy in stages, aligned with the availability of sustainable products that match conventional options in

[2] Within the time frame of the project, only qualitative evidences have been collected for some important elements. Further quantitative validations is need to draw firm conclusions and recommendations.

taste, quality, and price. Begin by mobilizing Light-Green consumers and Dark-Green advocates, then expand to mainstream audiences as supportive norms and product access strengthen. Continuous research should guide adaptation at each stage.

Together, these preliminary recommendations provide a foundation for developing a comprehensive citizen engagement strategy on food system transparency, in which True Pricing could play a valuable role. They are intended to inform further dialogue, testing, and refinement with stakeholders as the engagement strategy being further developed and evolves.

Contents

1 Introduction

Ministry LVVN is committed to providing transparency on the actual costs of food production, as the selling price does not reflect its environmental and climate impact. True Pricing is a promising transparency tool to raise awareness among citizens and consumers. The report "Enhancing the Impact of True Pricing in the Netherlands" has delivered a knowledge agenda for applied research at LVVN (Joosten-Ma & Aragon Moran, 2024). This report highlights the importance of an ecosystem approach, where interaction between government and citizens is essential for raising awareness about the true cost of food.

Previous research has shown that the general public's acceptance is deemed crucial for a successful and socially supported implementation of True Price for the intended impact for the societal transition (Michalke et al., 2022). Critical gaps have been identified in citizen engagement and acceptance of True Price, such as limited consumer awareness and willingness to pay, lack of trust and acceptance, perceived market standards and affordability and social equality concerns. Consequently, a structural approach on government-citizens interaction was recommended in order to drive awareness and acceptance of the true prices of food (Joosten-Ma & Aragon Moran, 2024). More specifically, the report recommended the government to include a structured long-term **citizen and consumer engagement strategy** in the effort of scaling up True Pricing impact, recognizing the dual role of individuals as both consumers (i.e. making food purchase choices) and citizens (i.e. using votes to support food-related policies and regulations) in the food system transition.

In order to develop such a long term strategy, Ministry LVVN has requested HHS to research the key factors that can help shape strategic options and value proposition scenarios for citizen engagement, that would serve as the foundation for the future strategy development.

2 Objectives

The overarching objective of this project is to provide a foundation for the future development of a Citizen Engagement Strategy that supports the Ministry of Agriculture, Fisheries, Food Security and Nature (LVVN) in advancing the impact of True Pricing and other food transparency means as part of broader food system transparency toolset. It aims to identify the key strategic factors that can guide a future engagement strategy designed to foster citizens' understanding, trust, and participation in the transition toward a fair and sustainable food system.

More specifically, the project seeks to:

1. **Identify the key drivers and barriers for food choices** and the role of food system transparency.

2. **Discover attitudinal and behavioural factors** that influence citizens' engagement with regards to food transparency and the tools supporting it, including True Pricing and others.

3. **Explore public perceptions, expectations, and barriers** related to True Pricing and general food system transparency tools, in order to understand how these influence acceptance and willingness to act.

4. **Understand potential citizen segments and target groups** based on attitudes, motivations, and behavioural readiness, identifying where engagement efforts can be most effective.

5. **Gain insights into the key communication elements and the role of key actors** in enabling and supporting citizen engagement.

6. **Formulate guiding principles and strategic design considerations** for an effective, citizen engagement strategy.

7. **Provide critical insights on value proposition scenarios** to inform LVVN's future citizen engagement strategy development and program design.

It has been recognised that both qualitative and quantitative evidences will be required to answer these research questions and address the objectives with the needed confidence. Recognising the time limitation, it has been agreed that the deliverables in this 2025 report will mainly focus on the qualitative output of the project.

3 Project Steps

To achieve above objectives, the following steps have been taken in this project within a seven-month period, from April to October 2025:

Step 1: Literature Review and Desk research

In order to develop a comprehensive understanding of the existing knowledge on the topic, literature review and desk research has been conducted. In this step, information from more than 60 relevant sources has been collected, analysed and synthesised, including scientific publications, policy reports, and case studies on True Pricing (TP) and True Cost Accounting (TCA). Topics covered are behavioural science, social marketing strategy, and societal transitions and related citizen engagement learnings.

The analysis was structured to identify relevant learnings with regards to behavioural change and social marketing elements in shaping a citizen engagement strategy. In addition, the desk research examined cross-sectoral insights from sustainable transitions (specifically energy, recycling, and tobacco control) where citizen participation proved crucial. Each transition was assessed through a consistent framework grounded in seven key dimensions of the Social Marketing Strategy: objectives, barriers, enablers, segmentation, communication strategy, stakeholders, and policy role. This systematic approach enabled across-sector comparison and the assessment of the applicability to the food system context.

Step 2: Expert Interviews

As the topic is broad and involves different expertise areas, qualitative in-depth interviews have been conducted to get an overview on different disciplines' perspectives with regards to citizen engagement and True Pricing. Previous efforts, projects and experts in relevant domains for engagement were identified, including True Pricing, behaviour science, communication, societal transition theories and practices, business, and consumer organisations.

In total, 15 experts were included in the interviews, significantly exceeded the original plan of 7 interviews, in order to cover wider spread of expertise, including True Pricing, behaviour science and consumer psychology, industry and food producer branch federation, journalists and public communication, societal transition, system change and market transformation, consumer organisations, and food transition NGOs.

The objective of the interviews was to get the personal perspectives from the interviewees, especially on their views on how to engage citizens in True Price. Prior to the interview, the experts received a short briefing document, which provided the project background, the basic description about the concepts of True Cost Accounting and True Pricing, and the summarized findings from 2024 report "Upscaling True Pricing Impact in the Netherlands" . These interviews were conducted online through TEAMS, and they followed a semi-structured interview guide that has been tailored to each expert category, including the key topics as below:

- Top of mind advice for a Citizen Engagement Strategy for True Price;
- Key barriers and opportunities in citizen engagement for True Pricing;
- Views on citizen segments and target group suggestions;
- The effectiveness of different engagement elements for societal transition;
- Important lessons from other societal transitions applicable to True Pricing;
- Recommendations for effective communication strategies.

Thematic analysis was used to synthesize the insights from the interviews with experts. Transcripts were coded to identify recurring ideas, which were then grouped into broader themes. The cross-interview insights were then synthesised and reported into the section "*Learnings from Expert Interviews*".

Step 3: Qualitative Citizen Focus Groups

To understand citizens perspectives on the opportunities and barriers for them to embrace food system transparency, as well as True Pricing and other possible enabling tools, 5 focus group sessions were conducted in July 2025 in The Hague University of Applied Sciences to gather in-depth qualitative insights from citizens. An additional focus group was organized versus the 4 initially planned to ensure a wider representation of the Light Green group, which was indicated as the most interesting potential target segment for the sustainable food system transition, based on the desk research.

Each focus group consists of approximately eight participants, representing diverse demographic and socio-economic backgrounds. The segmentation considered factors such as age, income, education level, urban or rural residence, general attitude toward sustainable food consumption, and prior awareness of sustainability concepts. Participants were grouped according to their primary food decision drivers:

- **Light Green (Groups 1 & 5):** Consider sustainability somewhat important and are open to ethical food choices but have not yet demonstrated this in purchasing behaviour.
- **Prudent (Group 2):** Price-driven participants whose choices are mainly determined by affordability.
- **Dark Green – Sustainability-driven (Group 3):** Prioritize sustainability and have recently purchased organic and/or plant-based protein products.
- **Dark Green – Health-driven (Group 4):** Driven primarily by health considerations, reflected in their purchasing patterns.

In total, **37 respondents** (22 women and 15 men) aged 18 to 67 years have participated in the sessions. Participants were recruited through an agency specialized in marketing research, leveraging their databases to ensure diversity and representativeness.

The focus groups followed a qualitative and exploratory design, intended to deepen understanding of citizen engagement behaviours across different societal contexts. A semi-structured discussion guide was developed to explore the key research topics, including the perceptions of the food system transparency, trust in economic instruments for sustainability, True Pricing, and motivations for engagement. Discussions also examined general attitudes and behaviours food choices, as well as specifically in relation to four key impact areas—health, environment, animal welfare, and social impact—alongside citizen engagement strategies.

Thematic analysis was used to synthesize the insights from the five focus groups. Recurring ideas were identified and grouped into broader themes. The cross-groups insights were then synthesised and reported into the section "*Learnings from Citizen Focus Groups*".

Step 4: Integrated Analysis, Conclusions, Recommendations and Reporting

After the separate analysis and reporting on the key findings from the desk research, expert interviews, and citizen focus groups, these findings were further compared, analysed and synthesized around the key themes, based on which the overarching conclusions have been draw. Due to the fact that research evidences are primarily qualitative, cautions have been taken in explicitly highlighting the preliminary

nature of the conclusions. The final phase concluded with the preliminary recommendations at the end of this detailed report.

4 Learnings from Desk Research

4.1 True Price and Food System Transparency

True Cost Accounting (TCA) and True Pricing (TP) are concepts that aim to reveal the real impact of products and services by including the hidden social and environmental costs that are not reflected in their market prices (Wageningen Economic Research, 2020).

The TCA approach is based on the assumption that aligning prices with their full sustainability impact can influence consumer and producer behaviour. When products that cause significant environmental or social harm become more expensive, consumers are more likely to opt for alternatives with lower true costs, thus reducing negative impacts on people and the planet (Pieper et al., 2020).

True Pricing builds on this principle by explicitly integrating hidden costs into the product's price, either as information, or for actual payment, enabling consumers to see what a product truly costs (True Price Foundation, 2021). This transparency helps both consumers and producers recognize differences in social and environmental impact between products and can encourage the adoption of more sustainable consumption patterns (Gemmill-Herren, Baker, & Paula, 2021).

In essence, the True Price represents the total cost of a product, including externalities such as air, soil, and water pollution, biodiversity loss, and poor labour conditions. Accounting for these hidden costs ensures that the price reflects the full burden borne by society, nature, and future generations. The True Price is calculated using the True Cost Accounting methodology (Wageningen University & Research, 2025).

TCA and TP can serve as one of the tools to support the transition toward a sustainable food system by enhancing transparency, enabling more responsible business decisions, increasing consumer awareness of hidden costs and behavioural impacts, and informing effective policy design (Joosten-Ma & Aragon Moran, 2024).

4.2 Dutch Consumers Perception About True Price

Recent reports provide a comprehensive picture of how Dutch consumers perceive and engage with the concept of True Price. Overall, these findings show that Dutch consumers conceptually support the idea of incorporating social and environmental costs into product prices but remain hesitant to pay higher prices themselves. Their perceptions are shaped by issues of trust, fairness, comprehension, and behavioral habits, all of which carry critical implications for designing an effective citizen engagement strategy around True Pricing in the Netherlands.

1. Limited familiarity with the concept of True Price

Dutch consumers show low familiarity and limited support for the concept of True Price. According to WUR's multi-year research among more than 3,000 respondents, 70% of consumers had never heard of True Pricing, whilst a majority believed in the existence of hidden costs in food production. They expressed interest in learning more about them (van Haaster-de Winter et al., 2025a; 2025b).. The concept resonates most when framed as a collective solution to sustainability challenges, rather than as an individual financial responsibility.

Citizen panel report showed “Price mechanisms” as the winning solutions proposed by citizens, which make plant-based foods cheaper and animal-based foods more expensive through tax reforms and subsidy removal (Onderstroombureau, 2024). However, CE Delft (2024) confirms that awareness of true price concept and voluntary participation in paying remain low. Even when consumers are presented with the option to pay the True Price in real purchase settings, only 7–15% choose to do so, and no significant behavioral change follows. This highlights the gap between attitudinal support and actual behavioural adoption, a central challenge for citizen engagement.

2. Fairness, Trust, and Transparency are determinants for acceptance

Trust and perceived fairness are critical conditions for public acceptance of True Pricing. WUR’s national survey shows that while consumers generally trust the calculation of True Prices (average score 4.0 on a 7-point scale), confidence drops sharply when it comes to the use of revenues or redistribution mechanisms (“herverdeling”), which scored as low as 3.2–3.4 (van Haaster-de Winter et al., 2025a). Consumers demand transparency regarding how additional revenues are used and prefer government or independent foundations to oversee implementation rather than private companies.

Similarly, THUAS report concluded that trust in institutions and clarity about spending mechanisms are strong predictors of willingness to pay (Joosten-Ma & Aragon Moran, 2024). Up to 50% of Dutch consumers express doubts about whether extra payments truly benefit people or the environment, underscoring the need for credible communication and governance (Centerdata et al., 2021)

In CE Delft’s analysis, these trust concerns are driven by habitual and automatic consumption patterns, which limit reflection on sustainability in daily purchases. The report suggests that even when trust improves, price sensitivity and routine behaviour continue to hinder widespread adoption unless True Pricing becomes the default system, supported by transparent oversight and institutional coordination (CE Delft, 2024).

3. Willingness to pay and perceived responsibility

Studies indicated that Dutch consumers’ willingness to pay (WTP) the True Price is modest and shaped by fairness concerns. THUAS (Joosten-Ma & Aragon Moran) qualitative study indicated that consumers believed that the food industry and supermarkets should pay the additional costs, and that it is unfair to ask them as consumers to pay. WUR (2025a) found that only 41% of consumers consider it fair that consumers pay the additional costs themselves, while 35% disagree, arguing that businesses or government should shoulder that responsibility. On average, consumers estimate that full implementation of True Pricing would raise food prices by 13–15%, yet they find only 4–5% acceptable (van Haaster-de Winter et al., 2025a).

CE Delft (2024) research also confirms this discrepancy. In voluntary settings, fewer than 15% of consumers opt to pay the True Price. Even when the environmental impact is clear, most consumers continue to choose cheaper alternatives, suggesting that moral approval does not translate into behavioral change. These outcomes imply that voluntary payment models are insufficient for large-scale impact and that institutionalized mechanisms, such as regulated pricing or default integration, are required to normalize the concept.

4. Communication and Framing

These studies demonstrate that communication plays a decisive role in shaping consumer understanding and engagement. WUR found that simplified, concrete, and visual explanations (e.g., short videos or infographics) significantly improve comprehension and willingness to act, while excessive detail leads to disengagement (van Haaster-de Winter et al., 2025a, 2025b). The most effective messages link True Pricing to personal relevance, such as health or community well-being, instead of abstract environmental impacts.

The THUAS (2024) summary report highlighted earlier findings that positive framing and visual clarity enhance consumer trust and perceived fairness. In consumer pilots, messages emphasizing societal contribution (e.g., "your purchase makes a difference") were more persuasive than guilt-based appeals (Centerdata et al., 2021). CE Delft's behavioral findings also indicate that clear price differentiation and transparent rationale increase acceptance, for example, when consumers understand why a sustainable product is priced higher or, conversely, when sustainable options are made competitively priced (CE Delft, 2024).

5. Segmentation and behavioral patterns

Both reports from WUR identified distinct consumer profiles with different levels of engagement:

- **"Donkergroene"** consumers (environmentally conscious) and **"lichtgroene"** consumers (health-oriented) are most receptive to True Pricing messages and more likely to choose products with lower hidden costs when well-informed.
- **"Uninvolved"** consumers, primarily motivated by price, remain largely unaffected by True Pricing information, regardless of format (van Haaster-de Winter et al., 2025a).

This segmentation implies that a one-size-fits-all communication strategy is ineffective. Instead, targeted messaging and tailored engagement approaches are necessary to activate different segments, ranging from awareness-building among mainstream consumers to reinforcing commitment and behavior among those who are already sustainability-minded.

4.3 Dutch Consumers Perception About Other Tools for Food System Impact Transparency

In the Netherlands, food system transparency is currently supported by a range of instruments, most notably labeling systems, quality marks (*keurmerken*), and digital information platforms (Vlek et al., 2022).

Among these, labeling systems are the most widely researched and have proven effective in improving consumer understanding and supporting healthier food choices. Sustainability labels and quality marks that communicate environmental and social impacts influence purchasing behavior: approximately 33% of consumers perceive labelled products as having higher value, 25% are hesitant to purchase unlabeled items, while 16% deliberately avoid them (Hek et al., 2012).

Despite the positive impact, several barriers continue to undermine the effectiveness of these existing transparency tools. Many consumers face a “wildgroei” (overabundance) of labels, making it difficult to differentiate between trustworthy and misleading logos.

Mandatory standardized labels (verplichte informatie), such as the EU energy label for appliances or building, are generally more effective than voluntary quality marks (keurmerken**)** in influencing consumer choices. Their structured and standardized format (e.g., color-coded “traffic light” systems) allows for clearer comparison and faster interpretation across products (Onwezen, Dwyer, Fox, & Snoek, 2022). In contrast, **keurmerken for food** (e.g., Fairtrade, Beter Leven, On the Way to PlanetProof) often fail to deliver strong behavioral effects due to information overload and inconsistent credibility. Information overload, and limited trust in the reliability of keurmerken are still key obstacles to effective consumer engagement (CE Delft, 2024):

- **70%** of Dutch consumers cannot name a single sustainability keurmerk.
- **More than half (57%)** express skepticism about whether labeled products are truly more sustainable.
- **44%** believe keurmerken serve mainly as marketing tools rather than credible indicators.
- **45%** find there are too many keurmerken for them to make an informed choice, and **56%** believe fewer, standardized labels would improve understanding.
- **A third of consumers cannot distinguish reliable labels from fake logos**, as shown by Milieu Centraal (2024). This erosion of trust undermines the effectiveness of even independent and well-regulated labels

To tackle this challenge, Milieu Centraal classification (Topkeurmerken) publishes the top-tier labels that meet high standards of ambition, transparency, and verification. In their 2025 evaluation the keurmerken that met the highest standards were: the ASC labels, Beter Leven (3 sterren), Demeter, EU-biologisch, Eko-NL3 sterren (varken), Fair for Life, Fairtrade, Fair Trade Certified, MSC, ProTerra, Rainforest Alliance and Sustainable Rice Platform (Milieu Centraal, 2025).

From a policy perspective, these findings point to a clear need for harmonization and government oversight to restore public trust and ensure transparency tools genuinely support sustainable consumption. CE Delft concludes that trust, standardization, and simplicity are critical for success. Fraded or multi-level impact labels, such as traffic-light systems, enable easier comparison between products and are therefore more effective in guiding sustainable behavior than binary keurmerken. However, while such tools can strengthen consumer awareness and willingness to pay, their system-level impact remains modest unless embedded within coherent regulatory frameworks and supported by communication strategies that enhance credibility and comprehension. EU initiatives such as the Ecodesign for Sustainable Products Regulation and the forthcoming Digital Product Passport (intended to enhance transparency on material use, recyclability, and environmental footprint across the value chain) could provide a unified framework for credible and comparable product information.

Society also supports stronger policy intervention in regulating and standardizing labels. Research by Kieskompas (Moleman, 2023) shows that over half of Dutch consumers favour mandatory labelling that discloses the climate and animal welfare impacts of food products. This indicates a clear opportunity to build on existing public interest by developing standardised, government-backed impact labels and simplifying the current proliferation of keurmerken. Similarly, findings from a citizen panel study voted for “clearer food labelling” as the second most preferred solution among participants, calling for honest,

comprehensible ingredient information on packaging, supported by icons or standardised labels to improve transparency and trust (Onderstroombureau, 2024)..

In addition to labelling tools, **digital platforms and applications**, such as *Trusted Source* and *Veggipedia*, play an increasingly important role in providing consumers with real-time sustainability information. Their potential lies in integrating accessible, transparent, and interactive information that empowers consumers to make informed food choices, provided these platforms are supported by credible data sources and user-cantered design. These tools help raise awareness and create feedback loops between producers and consumers, yet they still face significant challenges. Issues such as limited public awareness, low usability, unclear communication, and a lack of trust constrain their effectiveness. Moreover, the more detailed or technical information they provide often appeals mainly to sustainability-minded consumers, rather than reaching the broader public (Vlek, 2023; Wijk-Jansen, Robbemond, Onwezen, & Verdouw, 2014).

4.4 Citizens beyond Consumers

Most existing True Price related studies view individuals primarily as **consumers** who make purchasing decisions. For this project, we adopt a broader perspective, also considering individuals as **citizens** whose behaviours and values extend beyond consumption to include civic participation and collective responsibility. As demonstrated in our ecosystem approach (Joosten-Ma, Aragon Moran 2024), the impact of citizens in supporting policy directions is critical to make the system transition possible. This expansion from “consumers” to “citizens” enables a more comprehensive understanding of how people influence and support the transition toward a fair and transparent food system.

As **consumers**, individuals act from personal motivations—seeking products that meet their needs and comparing attributes such as price, quality, origin, and sustainability to inform their choices. Their influence is expressed through market demand and feedback directed at producers and retailers (Verhees & Verbong, 2015).

As **citizens**, people operate from a collective perspective, contributing to societal well-being through voting, advocacy, participation in consultations, and civic initiatives. In this role, they engage mainly with policymakers, communities, and civil society organizations (Giesbers, Mattijssen, & Leeuwis, 2025).

Both perspectives are essential and complementary. Consumer engagement drives responsible business practices through informed demand, while citizen engagement strengthens food system transparency through public dialogue and collective action. Together, they support informed participation, access to trustworthy information, and systemic change across the food chain.

The importance of this broader, citizen-centered approach is reflected in a 2024 KiesKompas study commissioned by ProVeg Netherlands, involving over 9,000 participants. The study revealed that people are often addressed mainly as consumers when it comes to plant-based food, even though their attitudes as citizens show stronger ethical and environmental concern. From intention perspective, only half of Dutch people indicated their intention to eat less meat. Lower shares want to reduce fish (26%), dairy (21%), cheese (20%), and eggs (16%). Also, relatively few Dutch citizens follow a vegetarian or vegan diet (2% vegans, 7% vegetarians, 45% flexitarians). However, their attitudes toward livestock farming are much more progressive. The Kieskompas–ProVeg study showed that most people support measures such as reducing the national livestock herd (66%) or banning intensive livestock farming (62%), and that

almost one third of Dutch population hopes for a future without using animals for food. Around 70% also feel uncomfortable with the way animals are treated in the livestock industry, including nearly half of all meat eaters. This suggests that many Dutch citizens are “more vegan” in their ethical views than their eating habits indicate. Moleman (2024) argues that such findings call for engaging people not only as consumers but also as citizens, creating ways for them to participate, express their values, and influence systemic change in food policy beyond their individual purchasing choices.

4.5 Engagement and Behaviour

In this project, we refer **engagement** to an individual durable state of connection with regards to the impact of food system. It combines cognitive (know/understand), affective (care/value), and behavioural (act/participate) dimensions. It is observable both as repeated consumer choices and civic participation. Conceptually, it builds on personal engagement (Kahn, 1990), public/climate engagement’s think–feel–act model (e.g., Lorenzoni et al., 2007; Whitmarsh et al., 2011), and the experiential plus behavioural view used to evaluate behaviour-change interventions (Perski et al., 2017).

In **COM-B behaviour system** (Michie et al., 2011).**,** behaviour occurs when Capability, Opportunity, and Motivation co-exist:

- **Capacity** denotes the extent to which an individual possesses the physical and psychological resources necessary to engage in a particular behaviour. This encompasses cognitive knowledge, acquired skills, and both mental and physical abilities.
- **Opportunity** refers to the external circumstances that facilitate or constrain behavioural expression, including social structures, institutional arrangements, and physical environmental conditions.
- **Motivation** encompasses the conscious and unconscious mechanisms that initiate and sustain behaviour, such as habitual patterns, emotional responses, and underlying belief systems

The **COM-B model** provides a systematic framework for identifying barriers to behaviour change. By analysing which component (or combination of components) is lacking, it enables the design of targeted and effective interventions.

For instance, in the context of promoting more sustainable food consumption, recent research by KiesKompas examined the factors underlying continued animal protein consumption among Dutch consumers. The study revealed that the top motivations for reducing animal consumption were *animal welfare* (86%), biodiversity and deforestation (87%), whereas *climate change* came after (73%). The study also showed that the most important reasons argued for not reducing meat intake are taste (75%) and the perception that animal products are essential for health (74%). Factors such as the economic role of livestock farming (61%) and the belief that eating animals is “normal” or “natural” (58%) were considered less significant. Interestingly, even individuals identifying as vegan rated taste as equally important as the average Dutch consumer (Moleman, 2023). Another research reported price (37%) as one of the key barriers to choosing plant-based foods, alongside taste (ProVeg International, 2024).

Applying the COM-B model to these findings, behavioral change is hindered by psychological capacity (misconceptions about nutritional adequacy), opportunity (affordability). and automatic motivation (strong habits and taste preferences). Consequently, effective interventions should combine educational strategies that correct misconceptions about plant-based nutrition with incentives and marketing initiatives

that enhance the taste appeal, availability, and affordability of sustainable alternatives, making these choices the convenient and accessible default.

Engagement plays a crucial role in this process, as it not only enhances motivation but also builds psychological capability by increasing knowledge and skills. Evidence from environmental education, citizen science, carbon literacy training, and public deliberation initiatives demonstrates that participatory engagement can empower individuals to adopt more sustainable behaviours (Whitmarsh et al., 2011).

The COM-B model forms the core of the **Behaviour Change Wheel (BCW)**, a comprehensive framework that guides the design of evidence-based strategies to promote lasting behavioural change. The BCW consists of three interconnected levels:

1. COM-B model (core level): establishes the foundation by identifying the key determinants of behaviour.

2. Intervention functions (middle layer): comprises nine strategies (such as education, persuasion, and incentivisation) that can be applied to influence behaviour.

3. Policy categories (outer layer): includes seven policy levers (such as regulation, fiscal measures, and communication) that support and enable intervention implementation.

Together, the COM-B model and the BCW offer policymakers a structured, evidence-based approach to designing interventions that address both motivational and structural barriers to sustainable consumption.

4.6 Strategic Social Marketing

Strategic social marketing research has generated rich learnings to support effective societal changes. French & Gordon (2020) has highlighted these in their book Strategic Social Marketing (2020) as the guiding principles. Base on the core of creating mutual value, social marketing seeks to generate benefits both for individuals (e.g., healthier, fairer, or more sustainable lifestyles) and for society at large (e.g., improved public health, equity, or environmental outcomes). This dual-value orientation is operationalized through six interlinked concepts:

1. Setting **explicit social goals** with measurable outcomes to evaluate effectiveness;
2. Adopting a strong **citizen orientation**, whereby problems are identified, solutions designed, and interventions tested and refined together with the public;
3. Delivering **value propositions** through a carefully designed social marketing mix that integrates services, social products, policies, incentives, and environments, all rooted in audience insights;
4. **Segmenting audiences** based on theory, data, and evidence to tailor strategies;
5. Conducting **competition, barrier, and asset analysis** to understand competing influences, ranging from social norms to commercial pressures, and to build strategies that reduce barriers and leverage assets; and
6. Ensuring critical thinking, reflexivity, and ethical practice, meaning interventions are culturally sensitive, transparent, ethically sound, and continuously adapted in light of shifting social, environmental, and economic conditions.

Applied to citizen engagement for food system transparency and True Pricing (TP), these principles emphasize that transparency tools (e.g., price breakdowns, labelling schemes) must show tangible value

for daily choices and collective well-being, be tailored to diverse motivations, and be safeguarded against commercial or cultural pressures that obscure true costs.

Social Marketing operationalizes COM-B behavioural framework by designing interventions that strengthen Capabilities (e.g., providing citizens with transparent information about food choices), shape Opportunities (e.g., creating supportive environments, incentives, or policies that make sustainable and fair options more accessible), and influence Motivations (e.g., shifting norms and values through communication, engagement, and citizen co-creation).

Social Marketing provides strategic and practical methods to design, implement, and evaluate interventions that create both individual and societal value.

4.6.1 Goal Setting

As French & Gordon (2020) stressed, goal setting starts by **specifying the behaviour(s) to influence and the societal outcomes to achieve**, then translating these into **explicit, measurable objectives** that guide design and evaluation. In practice, goals should span multiple levels, i.e. individual behaviour change, shifts in social norms and attitudes, changes to structural/physical environments, and maintenance of positive behaviours). Based on these, interventions can align communications, incentives, service redesign, and policy levers around the same end-states. Clear goals matter because they (i) sharpen audience research and **segmentation** (what change, for whom), (ii) anchor the **value propositions** and the marketing-mix components and, and (iii) set up **evaluation metrics** that demonstrate social return (e.g., fairer price signals and reduced externalities in the context of True Price). This is consistent with COM-B framework that encourages goal definitions to address Capability, Opportunity, and Motivation drivers of behaviour.

A practical example of a Strategic Social Marketing goal is the one related to the behavioural shift to eat more plant-based protein products and reduce the percentage of animal protein. The Netherlands has defined a specific, time-bound behavioural target for the population's protein intake: achieving a **50/50 split between plant- and animal-sourced proteins by 2030**, and integrated it within policy and parliamentary communications (The Health Council of the Netherlands, 2023; WUR, 2025; RIVM, 2021). This goal is measurable and actionable. The Ministry LVVN commissioned the Eiwitmonitor to track shifts annually in consumption, supply, and sales, enabling clearer attribution of change across retailers, manufacturers, and foodservice (Wageningen Economic Research, 2023; WUR, 2024). In parallel, the Health Council advises that moving beyond 50/50 toward 60/40 (plant/animal) would deliver additional health and environmental benefits, offering a longer-term directional benchmark once the 2030 goal is reached (Health Council of the Netherlands, 2023).

While transitions such as achieving a more balanced protein intake among the Dutch population have clearly defined goals and measurable indicators, the goal for citizen engagement on True Pricing is less straightforward to define, and not yet available. Nevertheless, broader food transparency goals provide a clear frame and direction for the ellaborarion of a goal on citizen engagement on True Price. It is good to note that in the recently published *Kamerbrief evaluatie duurzaam voedselbeleid 2022–2025* from The Dutch Ministry LVVN (1 september 2025), specific attention is given to evaluate the three lines of the sustainable food policy including combating food waste, promoting transparency in the food chain, and ensuring a sustainable food supply and consumption. Within the transparency line, development is highlighted in two key policy efforts linking with concrete measurements: improving the clarity and comparability of supermarkets' sustainability performance through the Supermarket Sustainability

Dashboard, and increasing transparency of sustainability labels on food products through Milieu Centraal's Quality Mark Guide.

4.6.2 Value Proposition

In the framework of strategic social marketing, the value proposition defines the mutual value exchange, i.e. what citizens and society gain relative to the costs or efforts associated with adopting the desired behaviour (French & Gordon, 2020). For policy making, this principle provides a vital link between citizen insights, and the design of effective policy measures and communication strategies. Clearly articulating value proposition ensures that policy interventions are evidence-based, and perceived as beneficial by all stakeholders involved. It is developed through:

1. deriving **deep citizen insights** about what people value (and fear), the contexts they live in, and the trade-offs they perceive.
2. specifying **benefits** across functional, emotional, social, and moral dimensions (e.g., convenience, reassurance, social approval, health benefits);
3. identifying perceived **costs** (money, time, effort, risk, loss of habit/status) and designing ways to reduce them; and
4. delivering the offer through an integrated **social marketing mix,** including **products and services provision** (e.g., True Price, labels, comparison tools, apps in the context of food system transparency), **policy and systems changes** (e.g. standards, data-sharing), **environmental/choice architecture** adjustments (availability, placement, defaults), **economic incentives and socially approved sanctions** (e.g. price rewards, penalties), and **recommended behaviours/actions** (simple, practicable calls to action).

The proposition should be prototyped and tested with priority segments, integrated across channels and partners. In essence, the value proposition should make the most desired choice the easiest, most rewarding, and most socially endorsed choice. It should also specified with measurable outcomes that capture both uptake and *societal* effects (French & Gordon, 2020). In the context of food system transparency and True Price, this means the transparent / True Priced option should be the most appealing. The success could be measured, for example through uptake rates, citizen satisfaction, and outcomes related to equity and externalities.

Reasons-To-Believe

While the Strategic Social Marketing framework emphasizes evidence and exchange, the explicit articulation of a **Reasons-To-Believe (RTB)** adds an essential layer of credibility to the value proposition (Kotler & Keller, 2016). The RTB refers to the proof points (such as independent audits, endorsements, scientific evidence, or pilot results) that make the promised benefits of an intervention trustworthy and persuasive. Integrating the RTB into the value proposition ensures that claims of value are not perceived as abstract or promotional, but as demonstrable and achievable outcomes supported by reliable evidence.

In practice, the formulation of the Value Proposition including the Reasons-To-Believe is a classic in marketing and follows the structure of: "For [target]… our [Product/service offering] is the [Frame of reference] that [Benefit], because [Reasons-To-Believe]". Applying it to Strategic Societal Marketing, value proposition could be formulated as:

"For [audience segment],
we [the intervention] offer [benefits / value]
if you adopt [behaviour / offering]
because [Reasons-To-Believe: evidence, data, credibility] "

We consider that this is particularly critical in True Pricing, where public scepticism and concerns about "greenwashing" can undermine behaviour change initiatives. By embedding the RTB alongside the articulation of benefits, the persuasive power of their interventions in strengthened, and ultimately foster greater trust and uptake among target audiences.

4.6.3 Segmentation, Targeting and Tipping Point

In Strategic Social Marketing, segmentation is the process of dividing a heterogeneous population into *actionable priority groups* using theory, data, and citizen insight, so that each group can receive a tailored value proposition and marketing-mix (French & Gordon, 2020).

According to French & Gordon (2020), practically it involves:

1. Clarifying the target behaviour and social outcome;
2. Gathering insights that define the groups and defining segments;
3. Selecting priority segments using criteria such as size/importance of the problem, responsiveness, reachability/cost or feasibility;
4. Positioning, prototyping, and testing distinct offers for each segment;
5. Tracking and refinement over time.

An example in the Dutch context is the **Motivaction Mentality Model** (Motivaction International B.V., n.d.) which segments the population into eight groups based on their core values, life goals, and social orientations. These eight segments or milieus (Cosmopolitans, Postmodern Hedonists, Modern Citizens, Traditional Citizens, New Conservatives, Socially Conscious, Upwardly Mobile, and Pragmatists) represent a spectrum of orientations ranging from traditional to postmodern worldviews, and reflect how people relate to themes such as sustainability, innovation, and social responsibility. For example, Cosmopolitans are open-minded, internationally oriented, and highly receptive to sustainability narratives, while Socially Conscious individuals are driven by fairness, equality, and collective well-being, making them natural allies in promoting systemic transitions. In contrast, Traditional Citizens and New Conservatives tend to value order, reliability, and continuity, responding better to messages that connect to quality, tradition, and care for future generations.

Segmentation also supports a **transition-oriented strategy** by identifying and engaging the segments with the greatest potential to influence others. By prioritizing opinion leaders and early adopters, behavioural diffusion can be accelerated toward a **tipping point**, the moment when a critical mass embraces the new behaviour, making it socially desirable and self-reinforcing within networks. Once this threshold is reached, the new norms propagate organically through imitation, social proof, and peer influence, embedding change within everyday practices and collective expectations (Rogers, 2003; Centola, Becker, Brackbill, & Baronchelli, 2018; Otto et al., 2020).

4.6.4 Influencers for Behaviour Change: Competitive Forces, Barriers & Assets

In the context of Strategic Social Marketing, it is critical to understand the full picture about the forces that influences behavior changes. The **competitive forces** cover everything that pulls people away from the desired behaviour, both internal (habit, affect, thrill/reward, addiction) and external (other people, commercial marketing, norms, environments, policies, systems) influences. Other potential competitive forces could also include perceived benefits of the current behaviour, the lack of immediate incentives to change, and the role (or absence) of significant others, media, politicians, and market actors. Parallel to competition and barriers, **asset analysis** helps identify the organizations, professionals, communities, and systems that can enable change and form alliances (French & Gordon, 2020).

4.7 Lessons from Other Sustainable Transitions

The food system transition is not the first systemic shift that requires citizens and consumers to change entrenched behaviours. Large-scale societal transformations have taken place before, showing that when everyday habits are involved, being either on how people heat their homes, dispose of waste, or or consume tobacco, lasting change depends not only on technology or infrastructure, but also on how citizens are engaged and how policy supports them. Reviewing learnings across these earlier transitions offers valuable insights for the current challenge of making the food system more transparent and fair through True Pricing.

Three transition cases have been examined to draw lessons: Energy transition, anti-smoking policies and campaigns, and the evolution of recycling systems. Each illustrates how clear objectives, credible communication, supportive policies, and attention to fairness can enable people to adopt new behaviours and sustain them over time. Together, these cases provide a practical evidence base for shaping an inclusive and effective citizen engagement strategy in the food domain.

4.7.1 Lessons from the Energy Transition

Over the past two decades, the Dutch energy transition has demonstrated how ambitious national goals can only be achieved when citizens are fully engaged. Moving away from natural gas, investing in renewable energy, and adopting new forms of mobility required not just technology, but also trust, participation, and changes in everyday practices. Furthermore, evidence shows that the transition success required the combination of financial signals (like the Dutch energy tax and EU-ETS), regulatory mandates, information tools, and market development for low-carbon alternatives. Strong reductions in gas and electricity consumption for households and businesses were observed when taxes rose and energy label requirements became more prominent, and real alternatives, such as heat pumps and affordable green tariffs, became available (CE Delft, 2024).

Setting Objectives

One of the clear lessons from the energy transition is the value of setting objectives that ordinary people can understand and see in practice. National climate goals became meaningful to households only when translated into visible outcomes such as “gas-free homes”, “community-owned solar parks,” visible A-label appliances, and cheaper green electricity (Banica et al., 2023; Biresselioglu et al., 2024; CE Delft, 2024). These tangible markers were complemented by EU energy label policies, which made energy

efficiency goals visible at the point of purchase—homes with better labels achieved higher resale values, and consumers increasingly chose A-rated appliances when information was clear (CE Delft, 2024). When programmes were described purely as “natural gas-free,” they often felt remote and technical. But when linked to wider community benefits like lower bills, healthier neighbourhoods, renewed facilities, and social cohesion, citizens recognised their own priorities in the transition and were more willing to participate (Bronsvoort, Hoftman, & Hajer, 2020).

Barriers

Several obstacles for citizen engagement in the energy transition have been identified. *Municipalities* were often expected to take the lead in local implementation, but smaller ones lacked the resources, while larger ones were slowed by bureaucratic procedures (Schlindwein & Montalvo, 2023). *Households* showed low short-term price elasticity, and most could not change energy use quickly unless older appliances were replaced or homes were renovated (CE Delft, 2024). Citizens were also deeply attached to *existing habits*, such as the convenience of natural gas heating, and the freedom of private car use, which resulted in the uncertain feeling towards alternative solutions (Schlindwein & Montalvo, 2023). Some renewable energy schemes, such as imported “green certificates,” were perceived as greenwashing, also reduced trust and discouraged genuine participation (CE Delft, 2024). *Communication* sometimes made matters worse: overly technical framing alienated residents who could not connect it to their daily lives (Bronsvoort et al., 2020). Moreover, questions of *fairness* emerged as costs of the transition fell unevenly, creating perceptions that not everyone was carrying the same burden (Biresselioglu et al., 2024).

Enablers

Despite these challenges, strong enablers kept momentum alive. Financial incentives such as the Dutch energy *tax* (energiebelasting), *subsidies* for insulation, and feed-in *tariffs* for solar panels gave households personal reasons to act (CE Delft, 2024; Biresselioglu et al., 2024). Energy labels and transparency tools proved highly effective: appliance and home labels shaped consumer choices and even property values, while *smart metering feedback* increased awareness and savings (CE Delft, 2024). These enablers worked best when combined. Policy pairing financial incentives with mandatory information tools consistently produced stronger behavioural responses. The effect of price signals also increased when attractive alternatives, such as affordable green tariffs or energy-efficient devices, were widely available (CE Delft, 2024).

Citizens also responded well to *visible* benefits. Cleaner air, lower energy bills, or a renovated community centre tied directly to energy projects created proof that participation mattered (Bronsvoort et al., 2020). *Social norms* amplified change: Once neighbours installed solar panels or joined cooperatives, others followed, perceiving participation as the new normal (Steg, Shwom, & Dietz, 2018).

Segmentation and Target Audience

The energy transition confirmed that citizens cannot be treated as one uniform group. Different audiences required different strategies. Homeowners and landlords were key decision-makers for energy upgrades, while renters had fewer options, requiring distinct communication and financing measures (CE Delft,

2024). Lower-income and older groups faced higher upfront costs and needed financial support and/or low-interest schemes to participate.

Younger, digitally literate citizens were early adopters of smart meters or peer-to-peer energy trading, leading on new technologies and platforms, while other groups joined at later stages as cost advantages and everyday convenience improved (Steg et al., 2018; Schlindwein & Montalvo, 2023). Early adopters and sustainability-motivated households thus paved the way, with mainstream adoption accelerating only when clarity, affordability, and accessibility, such as price-comparable green tariffs or appliance subsidies, aligned with proven convenience. Target group tailored campaigns were essential: digital natives responded best to targeted outreach through online platforms, while older or less affluent groups were reached most effectively via trusted neighbourhood advice and door-to-door support, ensuring the broadest possible engagement (CE Delft, 2024).

Rotterdam's BoTu district showed that engagement succeeds when entrepreneurs, schools, and residents each receive tailored outreach (Bronsvoort et al., 2020).

Communication Strategy – Message

The most effective messages made energy use, costs, and savings visible and comparable. Colour-coded energy labels (A–G) helped consumers instantly understand performance and make better choices (CE Delft, 2024). Messages that combined financial and emotional appeals ("what's in it for me") proved most successful, linking comfort, savings, and sustainability (Vainio et al., 2020). Campaign messages appealing to fairness and shared responsibility for future generations were effective in fostering collective motivation and solidarity, contributing to higher engagement intentions compared to individualistic messages (Amadori and Votta, 2021).

Communication Strategy – Messenger

Messages only worked when they came from voices that citizens trusted. Municipalities and energy cooperatives often played that role, giving credibility and proximity to messages. Neighbourhood professionals and ambassadors helped bridge the gap between policy and daily life, speaking in ways that resonated with residents (Bronsvoort et al., 2020). In some contexts, scientists and landscape architects rooted in local areas carried trust because of their place-based knowledge (Bronsvoort et al., 2020). At higher levels, provinces and ministries acted as conveners, ensuring that community dialogues.

Communication Strategy – Channels

The most effective communication strategies combined broad visibility with local, interactive encounters. The Future Bus, a mobile exhibition that visited village squares, brought debates into the heart of communities (Bronsvoort et al., 2020). The Places of Hope debate room created space for imagination and dialogue, while long-running ateliers allowed participants to develop shared visions. Sustained, multi-scene processes involving workshops, excursions, and debates helped keep citizens engaged over time rather than in one-off events (Bronsvoort et al., 2020). Digital platforms and social media amplified these narratives at national level but required careful transparency to avoid distrust (Si et al., 2023; Thielemann & Berrocal, 2023).

Stakeholders

The energy transition involved a wide array of actors, including policymakers, energy regulators, housing associations, grid operators, suppliers, and NGOs (CE Delft, 2024). Local authorities were pivotal in

delivering area-based interventions and coordinating collective retrofit schemes. Citizens themselves evolved from passive consumers to active co-investors and co-designers (Banica et al., 2023).

The Role of Policy

Finally, none of this would have been possible without policy. Dutch taxation and subsidy systems internalised external costs, making clean energy relatively cheaper (CE Delft, 2024). Regulations introduced gradually stricter norms, such as mandatory hybrid heat pumps and annual energy savings targets, and ensured transparency through labelling and requirements disclosure. Subsidies and financial schemes helped lower-income households participate. Coordination between national and local authorities provided consistency and accountability (Biresselioglu et al., 2024; Bronsvoort et al., 2020). For food transparency, similar instruments are needed: harmonised labelling standards, fiscal incentives for true-priced products, and coordination platforms linking national objectives with local initiatives.

4.7.2 Lessons from Anti-Smoking Program

Anti-smoking campaigns offer a unique case of how entrenched habits and powerful industry interests can be confronted through a blend of communication, segmentation, coalition-building, and strong policy. Over decades, tobacco control shifted both individual behaviour and societal norms. Smoking, once a socially accepted practice, is now increasingly marginal in many European contexts, including the Netherlands. These lessons are directly relevant for Dutch policymakers seeking to design a citizen engagement strategy on food system transparency, where complex behaviours, cultural norms, and industry influence pose comparable challenges.

Setting Objectives

The objectives of tobacco control were consistently clear and measurable: reduce smoking prevalence, prevent youth uptake, and protect non-smokers from other smokers (European Commission, 2009). The Netherlands' Smoke-free Generation movement crystallized this into a powerful societal aim: by 2040, fewer than 5% of adults should smoke and no child should start (Willemsen & Been, 2022). Campaign objectives also sought to denormalize smoking by redefining it as harmful to children, anti-social, and outdated (Chapman & Wakefield, 2001). This clarity, embedded in public commitments, kept momentum strong and progress trackable.

Barriers

Anti-smoking efforts faced powerful structural and cultural barriers. The most important "opponent force" was the tobacco industry, whose marketing and lobbying targeted vulnerable groups and undermined regulation (Cruz, Rose, Lienemann, Byron, & Wolfson, 2019). Campaigns also had to contend with deep cultural acceptance of smoking, particularly in social settings (Hohman, Crano, & Niedenthal, 2016). Locally, enforcement gaps and ambiguity over municipal responsibilities limited the rollout of smoke-free environments (Jooren, Geuke, Willemsen, et al., 2024). Politically, measures such as taxation and advertising bans were often criticized as overprotective government interventions that limited personal freedom in the name of public health (Chapman & Wakefield, 2001). On the citizen side, ambivalence and habit strength made behaviour difficult to shift, even with awareness of risks (Wong & McMurray, 2002).

Enablers

Several enablers contributed to success. The most powerful one was framing tobacco control as protection of children, which unified diverse actors and broadened legitimacy (Willemsen & Been, 2022). Other enablers included the presence of strong health NGO coalitions (e.g., the Cancer Society, Heart Foundation, Lung Foundation) that championed campaigns, and international agreements such as the WHO Framework Convention on Tobacco Control, which provided political cover for national action (European Commission, 2009). Sustained mass media campaigns, often tax-funded (as in California and Australia), reinforced norms by repeatedly highlighting harms and benefits of quitting (Zhang, Cowling, & Tang, 2010; Chapman & Wakefield, 2001). Evidence also shows that targeted framing strategies combining loss-framed health harms with efficacy cues helped messages resonate across different smoker groups (Ghods, Aghayari, Mahdipour, Zandian, & Abolghasemi, 2024).

Segmentation and Target Audience

Segmentation was critical to campaign design. Youth were consistently prioritized to prevent initiation, with messages emphasizing peer norms and “coolness” (Schoenaker, Brennan, & Wakefield, 2018). For young adults, who had the highest prevalence, campaigns tackled ambivalence and shifted perceptions of smoking’s social acceptability (Hohman et al., 2016). Current smokers were segmented further: some responded to stark health risk warnings, while others preferred supportive, efficacy-focused messaging encouraging quit attempts (Durkin, Brennan, & Wakefield, 2022). Research also emphasized vulnerable populations, such as low-income groups, ethnic minorities, who were often targets of pro-tobacco marketing. For these groups, tailored messaging, addressing cost and access barriers, and culturally resonant narratives proved essential (Cruz et al., 2019).

Communication Strategy - Message

Evidence from behavioural and neurological studies suggests that the effectiveness of gain vs. loss framing depends on the audience’s status and motivation (Wong & McMurray, 2002; Ghods et al., 2024). Successful campaigns often combined frames: health harms (loss) were paired with hopeful, efficacy-based cues (gain) to motivate action (Durkin et al., 2022). Campaigns also reinforced social norm messages, “most people don’t smoke”, to highlight majority behaviour and reduce ambivalence (Schoenaker et al., 2018). Long running research from Australia stressed that simplicity and repetition are key: messages must be understandable across education levels and avoid technical jargon (Chapman & Wakefield, 2001).

Communication Strategy - Messenger

Messengers enhanced credibility. In the Netherlands, the Smoke-free Generation was spearheaded not by government but by trusted NGOs, which added legitimacy (Willemsen & Been, 2022). Doctors, teachers, and parents were frontline messengers, embodying authority and care. Youth campaigns used peer leaders and social influencers to reach adolescents (Lahiri, Bingenheimer, Evans, & Wang, 2021). In vulnerable communities, community-based organizations and ambassadors were more effective than distant institutions (Cruz et al., 2019). Australian advocacy demonstrated the importance of skilled public health professionals who could act as media advocates, experts in crafting and framing stories that attracted journalistic interest and influenced political debate (Chapman & Wakefield, 2001).

Communication Strategy - Channels of Communication

Multi-channel strategies were indispensable. Mass media (TV, radio, billboards) built broad awareness, while digital platforms offered interactivity and tailoring (Durkin et al., 2022). Campaigns like the EU’s HELP initiative combined multilingual TV spots with a web platform, expanding reach (European Commission, 2009). Locally, smoke-free logos and signage acted as environmental cues, reminding

citizens of new norms (Willemsen & Been, 2022). Research emphasized consistency and continuity: California and Australia studies showed that decades-long, tax-funded campaigns yield stronger, more sustained reductions than one-off bursts (Zhang et al., 2010; Chapman & Wakefield, 2001).

Stakeholders

Tobacco control succeeded by building broad coalitions. Government ministries legislated and funded interventions. Charities and NGOs provided advocacy and credibility. Municipalities implemented smoke-free environments in schools, playgrounds, and sports clubs. Healthcare providers delivered cessation support and acted as trusted messengers (Durkin et al., 2022). International institutions such as the EU and WHO set frameworks and shared learning. Citizens were not just targets but also advocates, with parents and youth groups playing active roles in the Smoke-free Generation (Willemsen & Been, 2022). This distributed responsibility across society, reducing dependence on government alone.

The Role of Policy

Policy measures provided the essential backbone. At EU level, the Tobacco Products Directive (2001) set product standards and labelling requirements, while the Advertising Directive (2003) banned cross-border marketing (European Commission, 2009). In the Netherlands, the National Prevention Agreement (2018) bundled regulation, taxation, and funding for implementation (Willemsen & Been, 2022). Policies such as plain packaging, display bans, and smoke-free laws did more than regulate, they communicated, and signalling new norms. Reflections from Australia emphasize the “advocacy–media–policy” triad as a durable engine of change (Chapman & Wakefield, 2001). Local implementers highlight the importance of clear guidance on enforcement roles, which prevents policies from becoming symbolic only (Jooren et al., 2024).

4.7.3 Lessons from Circular Economy and Recycling

Recycling transitions over the past decades show how everyday citizen behaviour can be mobilized at scale when objectives are clear, systems are user-friendly, and communication builds trust. The parallels with food system transparency are direct: both require people to engage with previously hidden processes, both depend on trust in standards and institutions, and both involve coordination across multiple actors. Insights from recycling and behavioural strategies for the circular economy, highlight how design, communication, and policy mixes can create lasting citizen engagement.

Objectives

Recycling systems set measurable targets such as increase percentage of recyclable materials that are actually collected, reduced landfill, and improved sorting quality (Miafodzyeva & Brandt, 2013). Recycling objectives are also defined in behavioural terms, for example: the percentage of citizens who can correctly interpret a label within seconds, and the percentage of people who consistently act on transparency cues (Ministry of Infrastructure and Water Management, 2023).

Barriers

Recycling faced barriers such as inconvenient systems, confusing rules, and low trust in whether sorted waste was truly recycled (Thomas & Sharp, 2013; Martinho et al., 2017). Socio-economic constraints limited participation for lower-income groups with less space or time (Saphores & Nixon, 2014). Behavioural insights highlight additional frictions, including cognitive overload, competing priorities at

decision points, and capability gaps in literacy or numeracy that reduce comprehension of complex labels (Ministry of Infrastructure and Water Management, 2023). These factors show that information alone is not enough without the design that simplifies and supports action.

Enablers

Convenience was a powerful enabler: kerbside collection significantly outperformed drop-off points (Thomas & Sharp, 2013). Social feedback boosted engagement when neighbourhoods received recycling performance information (Martinho et al., 2017). Incentives like pay-as-you-throw reinforced participation (Allers & Hoeben, 2010). Behavioural strategy adds choice architecture tools: defaults for transparent options, simplification through icons and colour codes, timely prompts at point of choice, and feedback loops that translate data into visible local progress (Ministry of Infrastructure and Water Management, 2023). Together, these enablers make engagement easier, more rewarding, and more socially expected.

Segmentation and Target Audience

Research shows different citizen groups: committed recyclers, occasional participants, and non-recyclers (Miafodzyeva & Brandt, 2013). Younger and higher-educated households were more willing, while older or lower-income groups needed clearer instructions and support (Saphores & Nixon, 2014). In the Netherlands, main segmentation was done by capability and context (Ministry of Infrastructure and Water Management, 2023): Fast-scan shoppers needing ultra-simple cues; Planners who benefit from pre-purchase information; Curious verifiers who want access to detailed data; Sceptical households who need affordability and fairness framed clearly.

This type of segmentation goes beyond demographics and helps tailor engagement to actual decision contexts.

Communication – Message

Effective recycling communication combined emotional appeals with clarity. Messages stressing environmental benefits motivated some, while those focusing on fairness and collective responsibility reached broader audiences (Nigbur, Lyons, & Uzzell, 2010; Thomas & Sharp, 2013). Confusing or overly technical messages undermined compliance (Miafodzyeva & Brandt, 2013). Behavioural strategy underscores the value of **one-action messages** that are specific and testable, such as “choose this label” or “scan this code” (Ministry of Infrastructure and Water Management, 2023). Messages should highlight benefits people care about—safety, fairness, community—and use layered information: a simple top layer, with deeper layers for those who seek detail.

Communication – Messenger

In recycling, municipalities provided authority but local schools, NGOs, and community groups often carried more trust (Thomas & Sharp, 2013). Peer influence proved effective when people saw neighbors recycling (Nigbur et al., 2010). Behavioural insights recommend a **plural messenger model**: retailers and apps for in-store prompts, NGOs and municipalities for credibility, and community intermediaries for inclusion (Ministry of Infrastructure and Water Management, 2023). Technical data should be communicated by trusted, independent institutions, while everyday encouragement can come from relatable local figures.

Communication – Channels

Recycling campaigns succeeded when they mixed mass media with practical, point-of-use reminders such as bin stickers and leaflets (Martinho et al., 2017). Apps later added guidance and feedback (Thomas & Sharp, 2013). Behavioural strategy advises a **stacked channel plan**: front-of-pack signals, shelf-edge prompts, receipts, and retailer apps provide real-time cues, while ambient community dashboards and occasional mass media reinforce norms (Ministry of Infrastructure and Water Management, 2023). Effective sequencing combines short tactical bursts for change moments with always-on cues that sustain habits.

Stakeholders

Recycling transitions involved municipalities, private waste-treatment firms, NGOs, schools, and citizens themselves (Martinho et al., 2017). The behavioural strategy frames citizens not just as participants but as **co-producers** of outcomes. It defines complementary roles: government sets standards, retailers and platforms deliver cues, certifiers ensure data integrity, municipalities and NGOs localize outreach, and citizen groups co-design interventions (Ministry of Infrastructure and Water Management, 2023). Clear role division avoids diffusion of responsibility and enhances trust.

The Role of Policy

Recycling showed how policy anchors change through EU directives, national targets, and instruments like deposit-refund schemes (European Commission, 2018; Allers & Hoeben, 2010). Behavioural strategy stresses **policy mixes**: information tools alone are insufficient without binding standards, incentives, and experimentation frameworks. It suggests stablishing transparency standards with harmonized icons, interoperability of data across apps and receipts, and clauses that allow trial-and-scale of nudges and defaults (Ministry of Infrastructure and Water Management, 2023). Structural policies signal new norms and give permanence to communication efforts.

4.7.4 Consolidated Learnings from Other Transitions

The insights from three societal transition cases, i.e. energy, tobacco control and recycling, show that citizen engagement is never automatic. It must be built through clear objectives, credible communication, supportive policy, and visible benefits. Although the domains differ, each faced entrenched habits, powerful commercial interests, and complexity at the local level. The cross-sectoral lessons provide a practical foundation for designing a citizen engagement strategy on food system transparency, including True Pricing.

1. Tangible and measurable objectives sustain engagement

Across transitions, abstract goals became actionable only when translated into everyday terms. Energy programmes shifted national climate ambitions into visible outcomes such as gas-free homes and community solar parks (Banica, Bleischwitz, & Engler, 2023; Bronsvoort, Hoftman, & Hajer, 2020). Recycling set targets for capture rates and reduced landfill, allowing progress to be tracked (Miafodzyeva & Brandt, 2013). Anti-smoking campaigns crystallised aims in the Smoke-free Generation target of fewer than 5% smokers by 2040 (Willemsen & Been, 2022), and this endpoint was fixed, measurable, and visible in public spaces such as playgrounds and sports clubs (Willemsen & Been, 2022). Linking behavioural indicators to systemic outcomes, such as reduced emissions and improved resource efficiency, strengthens policy coherence and legitimacy, helping to align stakeholders within integrated transition frameworks (CE Delft, 2024).

2. Barriers emerge from habits, fairness concerns, and weak mandates

Behavioural barriers are powerful. Citizens stick to existing routines and resisted giving up natural gas heating or private cars in the energy sector (Schlindwein & Montalvo, 2023). Recycling faced barriers where rules were complex and infrastructure inconvenient (Thomas & Sharp, 2013). Tobacco control contended with social acceptance of smoking and industry resistance (Cruz, Rose, Lienemann, Byron, & Wolfson, 2019). Across sectors, perceptions of unfairness, whether about who pays transition costs or who is targeted by regulation, undermined legitimacy (Biresselioglu, Limoncuoğlu, & Demir, 2024).

Price signals or information alone have limited effect, especially if sustainable alternatives are not sufficiently attractive or available. Awareness or information alone is rarely enough for change. Citizens may avoid information that contradicts existing habits or norms, and there is a persistent gap between knowing and acting. (CE Delft, 2024)

Local governments often lacked the mandate or resources to enforce new measures (Jooren et al., 2024). This was demonstrated in the Netherlands when Municipalities hesitated to enforce smoke-free zones without clear legal authority, leading to patchy implementation (Jooren et al., 2024). CE Delft also stresses the negative effect of lack of supportive environments: without designing physical, economic, and social surroundings that make sustainable choices easier and unsustainable ones harder, behaviour change is limited (CE Delft, 2024).

3. Enablers link individual action to visible benefits and collective identity

People engage when they perceived tangible benefits that are aligned with their own interests and values. In the energy transition, cooperatives fostered participation by lowering household energy bills and strengthening community identity (Biresselioglu et al., 2024). Recycling initiatives achieved higher compliance when systems were convenient and households received direct feedback on their performance (Martinho, Pires, Portela, & Fonseca, 2017). Similarly, anti-smoking campaigns successfully mobilised broad societal support by framing the issue around protecting children rather than restricting individual choice (Willemsen & Been, 2022). As desired practices became more visible, such as neighbours recycling, quitting smoking, or installing solar panels, social norms reinforced the behaviour and accelerated diffusion (Steg, Shwom, & Dietz, 2018; Schoenaker, Brennan, & Wakefield, 2018).

Evidence across sectors shows that durable change arises when fiscal (taxes and incentives), regulatory (norms and standards), and informational (labelling and awareness) measures are deployed in combination rather than isolation (CE Delft, 2024).

Gradual implementation allows markets and consumers to adapt, while targeted adjustments over time ensure that fiscal instruments reflect actual external costs and social impacts (CE Delft, 2024).

4. Segmentation ensures inclusion across diverse groups

Transitions succeeded when audiences were not treated as uniform. Younger, digitally literate households were early adopters of smart meters, while older citizens responded to cooperative meetings (Steg et al., 2018). Some segments are more responsive to “green” incentives or information (those already motivated by environmental concerns are early adopters), while others prefer proven cost savings (CE Delft, 2024). Recycling studies showed committed recyclers, occasional participants, and non-recyclers, each requiring different interventions (Miafodzyeva & Brandt, 2013). Tobacco control tailored campaigns to youth, young adults, and vulnerable groups targeted by industry marketing, adapting frames and supports accordingly (Cruz et al., 2019; Schoenaker et al., 2018).

5. Communication works when messages are simple, credible, and repeated

Across domains, complexity undermined impact. Recycling campaigns that gave too much detail reduced compliance (Thomas & Sharp, 2013). Anti-smoking evidence shows that short, repetitive messages such as “Smoking kills” had more effect than technical explanations (Chapman & Wakefield, 2001). Energy messages resonated when they stressed fairness, benefits for future generations, and concrete actions like shifting energy use at peak hours (Vainio, Varho, Tapio, Pulkka, & Paloniemi, 2020). The most effective messages made costs savings and energy impacts explicit and easy to compare (e.g. colour-coded energy labels)

“What’s in it for me?” framing, linking personal benefit with sustainability, resonates most with the general public, while demonstrating co-benefits (comfort, health, future value) and personal benefits (like savngs) increases support (CE Delft, 2024).

Credibility came from trusted messengers (NGOs, schools, cooperatives, doctors) rather than government alone (Willemsen & Been, 2022; Bronsvoort et al., 2020). Multi-channel approaches amplified impact, from TV and billboards to apps, digital forums, and environmental cues such as labels and signage (Durkin, Brennan, & Wakefield, 2022; Si, Truffer, & Chen, 2023).

6. Policy backbones lock change in place

In all three domains, engagement efforts were effective only when anchored in law and regulation. EU waste directives and deposit-return schemes ensured recycling continuity (European Commission, 2018). Tobacco control accelerated with advertising bans, plain packaging, and the WHO Framework Convention on Tobacco Control (European Commission, 2009; Willemsen & Been, 2022). In the context of the energy transition, subsidies for solar panels, clear timelines for phasing out fossil-fuel vehicles, and coordination platforms have helped provide policy and market certainty (Biresselioglu et al., 2024). Policy did more than regulate. It communicated norms and ensured that engagement was not left to voluntary goodwill.

5 Learnings from Expert Interviews

5.1 Introduction

A total of 15 in-depth interviews were conducted. The respondents were selected based on their professional backgrounds and expertise in relevant domains. The interviewees included:

- 1 expert specifically focused on **True Pricing**, from the True Price Foundation, with experience in engagement and the impact of interactions with other stakeholders in the TP ecosystem (E08)
- 1 **behavioral economist with expertise in True Price** and consumer decision-making, choice architecture, and evidence-based communication for sustainable food choices, (E10)
- 2 experts on **Behavioural Science & Consumer Psychology** (E01, E07)
- 1 expert from the food and beverages **industry** (E11a)

- 1 expert from the Federatie Nederlandse Levensmiddelen Industrie, FNLI (E11b)
- 3 **journalists** and 1 expert in public c**ommunication** (E03, E05, E06, E12)
- 1 expert in broader **systems-change and market-transformation** (E13)
- 4 **NGOs and civil society** representatives

Table 1: Overview of Expert Interviewees and Their Areas of Expertise

Code	Interviewee Expertise Domain
E08	True Price
E10	Behavioural economy and True Price
E01	Behavioural economics and psychology expert, research on beliefs, social norms, inequality perceptions, and ethical decision-making
E07	Cognitive Psychology expert, research on Psychology and Sustainability, Nutrition & Dietetics
E11 a	Industry
E11 b	Federatie Nederlandse Levensmiddelen Industrie (FNLI)
E03	Media & Journalism
E05	Media & Journalism
E06	Public Communicationt expert
E12	Media & Journalism
E02	NGOs - Food System Transition
E04	NGOs - Protein Transition. Public opinion & attitudes researcher
E09	NGOs - Consumer Organisation
E14	NGOs - Environmental Information. Expert on labels, quality marks and certification standards
E13	System Change & Market Transformation expert

The interviews were qualitative and in-depth, and they followed a semi-structured interview guide that has been tailored to each expert category, including the key topics as below (not exhaustive):

1 Spontaneous response to top of mind advice for a citizen engagement strategy for True Price.
2 Views on target groups and target group suggestions.
3 Key barriers and opportunities in citizen engagement for True Pricing.
4 The effectiveness of different engagement mechanisms for societal transition.
5 Important lessons from other societal transitions applicable to True Pricing.
6 Recommendations for effective communication strategies.

Thematic analysis was used to synthesize the insights from the interviews with experts. Transcripts were coded to identify recurring ideas, which were then grouped into broader themes. The cross-interview insights were then synthesised and reported into the section "*Learnings from Expert Interviews*".

5.2 Citizens, more than Consumers

Several interviewees spontaneously called out that sustainable food must be framed as a societal project in which people act as **citizens**, not as isolated shoppers who shoulder moral costs. Advocates caution against reducing people to "walking wallets," which leaves many feeling powerless and misplaces responsibility for system problems (E02). As one expert put it, policy should address "the big problems in the food system" through **laws and regulations**, because only "a very small group" will reliably choose

the more sustainable product (E02). Strategically, as an expert on behaviour and True Price stated, shifting norms via the **voter** domain is considered “much cheaper… than changing your own behaviour,” reinforcing a citizen-first path to mandate change (E10).

This citizen-first lens reinforces the angle of mobilising civic pathways (voting, public deliberation, support for rules) with long term impact, rather than focusing exclusively in consumer pathways.

5.3 The Role of True Price and Food System Transparency

Interviewees converge that TP/TCA is valuable as signal and communication, but **not a standalone strategy**. “A true price in euro value is not a strategy” for system change, mentioned an expert on market transformation (E13). Simply adding a surcharge does not “close the circle,” because money collected is not automatically used to remedy harm (E04). Moreover, **voluntary** add-ons won’t scale and risk free riding (E06).

Even as communication tool, an interviewee involved in Superlist retail benchmarking warns: “For a company… monetizing problems could help… but if you want to engage citizens… you need the stories and not the figures, because figures don’t work.” (E02)

Multiple interviewees call for **one method** to align proliferating labels and KPIs across sectors (E13). “Unify KPIs… report and… reward farmers” captures the core (E13). On the citizen side, several would like to have **simple calculators** that translate firm-level disclosures into personal guidance within ~5 years (E10). Standardization serves both **policy enforcement** and **citizen comprehension**.

Company- vs Product-Level Transparency

The support of True Price at SKU level versus a tool for company-level comparability varies amongst interviewees. One particular True Price expert defend that TP pilots show short-term wins from product add-ons with transparent remediation stories (E08). However, system change strategists, journalists, civil society and industry representatives alert that it can misplace responsibility, be hard to interpret, and imply remediation that can’t be guaranteed (E03,E09, E07, E11, E12). They advocate for TP as tool that helps compare companies at overall level, rather than SKU-noise (E02, E10, E13): “we need to see what this coffee producer versus that coffee producer is doing” (E10). Others emphasize that comparing companies avoids implying that shoppers alone must fix systemic issues (E02).

Voluntary add-ons vs. mandatory/standardized approaches

Another point of misalignment arises spontaneously amongst some expert fields: while behaviour experts and strategists (E06, E12, E13) prefer mandatory methods to avoid free-riding, consumer organisation (E09) is positive about including real costs but less specific on who pays.

5.4 Assets and Competitive Forces in Citizen Engagement for True Price

Assets

Across interviews, stakeholders converge on a coalition logic: **government** to set guardrails and convene, **retailers/caterers** as primary citizen touchpoints, **NGOs/consumer groups** for trusted translation (E02, E09), **farmers** as potential allies (if supported with fair prices, longer contracts, and transition finance), and **finance/reporting actors** (banks, accountants, CSRD teams) are leverage points because CSRD/reporting teams shape transparency (E10).

Controlled environments (schools, public procurement, workplace catering) are repeatedly cited as early-scale "assets" to normalize practices before retail roll-out. Concrete demonstrations help in the short term: a one-week pilot at Ekoplaza/Odin "put €0.50 extra on bananas… and sales actually went up 20%" (E08). Industry and trade bodies underline their messenger limits, "We're not the most likely source of information… to be trusted" (E11), and behaviour experts stress the need for a **neutral, independent authority** to anchor trust (E06).

Competitive forces

Most interviewees identify **food companies** and parts of the **meat/dairy lobby** as status-quo anchors, while some **retailers** lag on sustainability moves. Retail competition creates a prisoner's dilemma: unilateral action can invite share loss, e.g., Jumbo has stopped promoting meat-product with special offers, but risks to lose its competitiveness when other supermarkets do not do the same.

5.5 Segmentation and Targeting

A pragmatic segmentation recurs: dark-green, light-green, and prudent/price-driven. Several propose starting with the light-green and then diffusing to others (E05, E06, E07). A social tipping point is expected around 25–30% adoption: "once you've got 25%… the transition isn't going to stop anymore" (E05).

Another behavioural expert warned that the pro-sustainability "dark green" group doesn't naturally advocate; salient events (like a price increase or crisis) can prompt them to speak up and shift norms: "There's this dark-green group … they do the right things but don't talk about it… disruptions make people talk, that's how it spreads." (E10)

One expert mentioned that a segment of ~25% "who just don't care," best reached via in-store "seduction" rather than values appeals.

An interviewee from an NGO and public information expert recommend segmenting by attitude (mentioned the "Motivaction model") rather than demographics (E14). Attitude segmentation provides practical hooks; the mass beyond early adopters needs tangible, immediate value: "We always use the Motivaction mentality model… it's about mindsets, not demographics… What you say to an 'impulsive individualist' is different from what works for a 'careful world improver.'". According to this interviewee, sustainability messages resonate better with the following segments of the "Motivaction" model (Motivaction International B.V., n.d.):

- Postmodern hedonists (9%): The pioneers of an experiential culture in which experimentation and the breaking of moral and social conventions have become ends in themselves.
- Postmaterialists (11%): The socially critical idealists who want to develop themselves, take a stand against social injustice and stand up for the environment.

- Cosmpolitans (18%): Critical global citizens who integrate postmodern values of development and experience with modern values of success, materialism and pleasure.

5.6 Key Success Factors for True Price Engagement

The role of Government, Retailers and Industry

The system “sticks” unless government sets guardrails and creates a level playing field. Industry voices explicitly prefer government-led communication of the overall benefits for the society (E11). Retailers have powerful gatekeeping effects; moving “in unison” would mitigate first-mover disadvantages and justify removing the worst SKUs, if explained to customers (E03–E04). “Don’t put the cheapest, the lowest, the worst products in the supermarket anymore” (E03). Coordination and standards are the policy levers.

Risk Management: Affordability, Reactance, Polarization

Affordability concerns must be designed in, not bolted on later. Some explicitly stated that food should cost more to reflect value, but warn that low-income households need income measures and visible fairness to avoid a backlash (E03). To reduce resistance, keep choice while changing defaults (E07). Media frames can polarize, e.g., “government taking away your meat”, thus depoliticized, solution-focused messaging can mitigate this effect (E04).

Information Limits & Avoidance

Information alone rarely shifts behaviour. People sometimes avoid “inconvenient” information, even paying not to see it, and the effects of labels tend to be small and fade (E01). Over-detailing can erode trust: “The more you put everything in protocols… the more people are losing trust” (E07). Effective transparency lowers the cost of knowing (simple visuals, prominent placement) and avoids overload while preserving control (E01, E10).

Behavioural Levers that Work

Four levers recur on what makes people act:

- **Health framing** beats climate moralizing (E03, E05, E07, E09, E12). “Health is the most important” reason people choose food; if you want sustainability, “you have to talk about health” (E09).
- **Design the choice environment** so that the most sustainable option is the easiest and most accessible one, while gradually phasing out the least sustainable products. Maintain freedom of choice to avoid resistance. (E03, E06, E07, E12).
- Make benefits **near-term and concrete** (e.g., price shocks in coffee/olive oil, local water quality) (E04–E05–E08).
- Leverage **identity and social proof** (micro-influencers; “blend in” norms like 0.0 beer in the same glass as normal beer) (E07, E11).

5.7 Learnings from Other Societal Transitions

Interviewees referred learnings that can be borrowed from other major societal transitions to shape a credible citizen engagement strategy for food-system transparency/True Price. From smoke-free norms and organ-donation defaults, to alcohol-free beer (0.0) adoption, “plofkip” removal, and the energy transition, these are the main takeaways:

Change the default but keep choice

Successful transitions shift the environment so the desired behaviour becomes ordinary without removing freedom, echoing smoke-free policies and organ-donation defaults. Interviewees stress default-with-choice architectures to avoid backlash: “The default should be the best option, and then still there has to be choices, otherwise people get angry” (E07). Concrete category “clean-ups” show how normalization works in food: “There’s no *plofkip* in Dutch supermarkets anymore” (E03). These precedents suggest a True Price (TP) engagement program should prioritize curated assortments and defaults (e.g., in catering and schools) that make better choices obvious while preserving control.

Reach parity before you preach: quality, price, and identity-safe cues

Alcohol-free beer illustrates that norms stick once the alternative reaches quality and price parity, is launched with good timing, and comes wrapped in identity-safe cues. “0.0 only really took off when taste matched lager… timing was right… and it wasn’t pricier” (E11). Seemingly small social signals matter: “Students want a normal beer glass; don’t want others to notice 0.0” (E11). For True Price, this implies pairing any new display or pricing experiment with parity checks (taste, convenience, price) and with “blend-in” cues so uptake feels normal rather than virtuous.

Salience precedes behaviour

Norms often shift after an issue achieves conversational dominance; behaviour follows. “When an issue becomes the talk of the town, norms start to shift, and behaviour follows” (E10). Citizen-facing efforts should therefore combine visible pilots (in schools/catering) with a non-branded awareness burst that drives repeated exposure and everyday conversation.

Leverage shocks as teachable moments, provide alternatives immediately

Crises and price spikes act as accelerants if communications connect the dots and offer do-able substitutions. “Coffee prices rising… use it to shape the narrative (olive oil is another good example)” (E05). For True Price, link salient shocks (e.g., a price jump) to simple swaps and local co-benefits so citizens can act right away rather than just worry.

Expect diffusion dynamics and plan for the tipping, and change can take years (not months)

Early adopters look atypical until accumulation flips the norm. “As an early adopter you look a bit strange… then you reach the bell-curve tail and you get a tipping point” (E12,). A True Price engagement strategy should set phase-gates around adoption thresholds (e.g., in catering or a pilot retail aisle) and be ready to escalate support when the curve steepens. Timelines are expected to be long: “The smoking transition took ~50 years” (E07)

Don’t overload the shelf: translate complexity into simple, finite formats

Past transitions worked when complexity was hidden under simple, trusted formats. For True Price, the warning is explicit: “Don’t try to bring the full complexity of the system into the supermarket… use labels and quality marks that people understand; True Price might help to show the value of keurmerken” (E14). That points to limited-duration store experiments, clear icons, and citizen-facing explanations outside the shelf (e.g., in media, schools, or procurement contexts).

5.8 Phasing, Proof & Pilots

A **5–10-year horizon** is the dominant storyline (E03, E08, E11, E13, E14). The **0.0 beer** analogy illustrates sequencing, product quality parity, right timing, role models, and price parity, before a new norm can scale (E11). Near-term waypoints (e.g., **all catering** showing true prices in ~5 years) create momentum and learning (E08).

5.9 Media and Channels

Trust hinges on **independent standards and messengers**. Behaviour experts warn that a credible True Price requires an independent authority; “voluntary” or brand-owned claims risk skepticism (E06). Industry actors themselves prefer government-led campaigns they can endorse: “We need to be transparent… but I’m not sure if the citizen always relies on us” (E11). The consumer organization stresses clear rules on green claims to curb confusion and greenwashing (E09).

To reach mainstream publics, interviewees recommend **mass/pop media** (e.g., AD, De Telegraaf, TV) and **micro-influencers** for credibility in younger cohorts; TV alone is insufficient for youth, who respond to short, repeated social media content. The messenger matters: “Someone just like me” beats celebrity endorsements (E11).

As additional channels and contexts, interviewees converge on **catering** and **schools** as lower-friction sandboxes to teach, normalize and scale (E08, E09, E11, E14). They are mentioned as the primary channel for live-experience (E03, E11). Catering is “the front-runner” and can show two prices with clear remediation; retailers tend to follow (E08). Youth-facing programs (JOGG/NIX18) are effective but resource-intensive. In the public narrative, price shocks (coffee, olive oil) offer concrete hooks to explain why inaction is costly (E05). Retailers are pivotal gatekeepers but need level-playing-field coordination (E03–E05).

5.10 Message

Effective narratives ask **“who benefits?”** and show tangible returns (health, local quality of life) rather than moralizing costs. “How can it make your life better or richer?” should anchor outreach (E08). Positive brand exemplars demonstrate that a **good story** can unlock willingness to pay, “people are willing to pay double” when they understand the purpose (Tony’s) (E14). Visual, concrete storytelling (e.g., farmers, outdoor animals) builds salience without polarizing (E03).

There is a tension with regards to animal welfare message (several advise **avoid over-indexing on animal welfare** for broad audiences (E05), while others emphasize **biodiversity/zoonoses** as right-

leaning resonant frames (E04). However **health** is the safest and strongest lever; “if you want sustainability, you have to talk about health” (E09). **Gain framing** (“you get better quality”) outperforms moralizing loss frames; near-term, concrete connections (e.g., price shocks, local water quality) increase salience.

5.11 Key Takeaways

Findings from fourteen expert interviews highlight that a successful citizen engagement strategy for True Pricing must frame participation as part of a collective societal effort rather than a matter of individual consumer morality. Experts agreed that citizens should not be treated as “walking wallets” expected to fix systemic issues through their purchases. Instead, True Pricing should be positioned as a public good that ensures fairness across the food system. Citizens are more receptive when engagement emphasizes shared responsibility, health, and visible benefits such as fair farmer incomes and improved local environments.

Interviewees cautioned that a “true price” euro value alone is not a strategy for system change. While it can serve as a communication tool, its credibility depends on transparent mechanisms that show how additional costs are used to remedy environmental or social harm. Without this, voluntary price add-ons risk appearing symbolic or inequitable. Information campaigns alone are ineffective; people often ignore or avoid complex or inconvenient data. Simplified, standardized, and trusted formats are essential for comprehension and trust. Standardization of metrics and labelling across sectors also supports both enforcement and citizen understanding.

Trust emerged as the central condition for engagement. Experts agreed that government or an independent authority should oversee True Pricing standards to ensure impartiality. Industry actors recognized their limited credibility and preferred government-led communication that companies could endorse. Neutral intermediaries such as NGOs or consumer organizations can translate complex issues into accessible, credible messages. Controlled environments (such as schools, workplace catering, and public procurement) were identified as effective starting points to demonstrate and normalize new practices before expanding to retail settings.

Message framing should focus on positive, relatable benefits. Health, product quality, and local co-benefits resonate far more than climate or moral appeals. Gain-framed and solution-oriented messages (“better for your health,” “good for local nature”) are more effective and less polarizing than loss-based or moralizing tones. Communication should remain concrete and depoliticized. Successful societal transitions, such as the introduction of alcohol-free beer, demonstrate that change occurs when sustainable options become easy and normal. In practice, this means designing choice environments where the “best” option is the default but freedom of choice is maintained.

Segmentation insights point to targeting the “light-green” pragmatic middle group as the primary entry point, supported by role models from the early adopter segments. Salient events can prompt “dark green” segment to speak up and shift norms. Once approximately a quarter of citizens adopt or approve of the change, social diffusion dynamics make the transition self-sustaining. Mentality-based targeting, such as the Motivaction model (Motivaction International B.V., n.d.), offers a practical approach by tailoring communication to distinct mindsets rather than demographics. For instance, cosmopolitans and postmaterialists are motivated by fairness and global justice, while postmodern hedonists respond to experiential and quality cues. Across groups, authenticity, simplicity, and visible fairness remain common denominators of trust.

At the policy level, interviewees converged on a 5–10-year phasing strategy. Early pilots should test and demonstrate success in controlled settings, followed by sector coordination and eventual regulation. Government leadership is essential to set guardrails, prevent free-riding, and ensure a level playing field. Fair remuneration and transition finance for farmers and producers must accompany citizen engagement to maintain perceived fairness. Multi-actor coalitions connecting government, retailers, NGOs, and finance institutions are necessary to align communication, incentives, and oversight.

6 Learnings from Citizen Focus Groups

6.1 Introduction

This report presents consolidated findings from five focus group sessions conducted in July 2025, in Den Haag, with citizens across various attitudes toward food choices, influencing factors for the choices, and respond to ideas that could foster greater food system transparency. The groups included participants with diverse profiles, categorized by food decision priorities:

- **Group 1 & 5: Light Green** – Consider sustainability (somewhat) important and open to consider ethical aspect in food choices, but have not yet shown any actual behaviour in their food choice yet, i.e. no recent purchase of either organic or plant-based protein products.
- **Group 2: Prudent (Price-driven)** – Price is the main driver for food choices.
- **Group 3: Dark Green (Sustainability-driven)** – Sustainability is the main driver for food choices, have purchased organic and/or plant-based protein products recently.
- **Group 4: Dark Green (Health-driven)** – Health is the main driver for food choices, have purchased organic and/or plant-based protein products recently.

The discussions explored attitudes and behaviours in relation to four key impact areas—*Health, Environment, Animal Welfare, and Social Impact*—as well as perceptions of food system transparency and receptivity to various citizen engagement strategies.

Across 37 participants (across different age groups from 18-67 years old, 22 women and 15 men), conversations flowed with spontaneity, conviction, doubt, and curiosity—offering a valuable qualitative landscape of how people relate to their plates.

6.2 Key Findings by Theme

A. Drivers of Food Choice: The Tension Between Taste, Health, and Wallet

Across all segments of five groups, **taste** emerged as the most fundamental food choice driver. Regardless of age, gender, or ideology, food must be enjoyable to justify a purchase. “It is important that the food is delicious,” said 62 years old woman, echoing many others. Whether discussing a comforting Surinamese oven dish or a vibrant vegetarian curry, taste was the non-negotiable foundation of any food decision.

Health emerged as the universal concern and the most significant driver next to taste driver for nearly all respondents—often tied to personal experiences. Personal well-being, weight control, fitness goals, or medical diagnoses (e.g., high cholesterol or asthma) frequently motivated shifts in food behaviour. Participants described cutting back on sugar, saturated fat, and processed foods. One 26-years-old woman shared, *“I eat less saturated fat and sugar now. I also have a more active lifestyle thanks to a trajectory with a personal trainer and a dietician.”*

Affordability was crucial, strongly influenced food purchases, particularly for Prudent citizens, but was acknowledged as a constraint by participants across all segments. A 28-year-women participant explained, *"When it comes to food, it's important that it's affordable, not ultra-processed, and ideally on sale."* Similarly, a 45-years-old man emphasized his need for *"small packs for one person and a low price."*

Ethical drivers—such as animal welfare, environmental concerns, and labor rights—were acknowledged by most groups, but their influence on behaviour varied greatly.

There are some **segment differences**: *Dark Green* participants explicitly integrated ethics and sustainability into their purchasing behaviour, prioritizing local, organic, and vegetarian options. *Light Green* groups acknowledged ethical aspects but primarily acted when health or convenience aligned with values. *Prudent* group showed minimal proactive behaviour, often defaulting to routine purchases unless externally triggered (e.g., guests, sales).

In the *Impact Area Ranking exercise*, **Health** ranked highest across all groups, and was the most frequently chosen top priority (ranked #1 by 16 of 30 participants). **Animal Welfare** followed as the second, **Environment** as the third, whereas **Social Impact** ranked lowest overall, especially among Prudent participants.

While **environmental and ethical factors** mattered to many, especially in the "Dark Green" and some "Light Green" groups, they often came after taste, health, and cost. Yet even among those less driven by sustainability, there was a growing awareness: *"I eat less meat because of the pollution aspect for the environment,"* said a 28 years-old man, who credited his inspiration to Dutch comedian Arjan Lubach.

B. Awareness of Impact: Facts Can Shake the Comfortable Norm

All groups showed varying levels of spontaneous awareness regarding the broader **impact of their food choices**, from environmental burdens to social and ethical considerations.

Participants in the more conscious groups (particularly the sustainability–driven Dark Green Group 3) were quick to mention **CO_2 emissions, water use, animal welfare**, and **labor rights**. A 38-years old vegetarian man stated plainly, *"I don't buy mangoes from Colombia anymore—they come from too far and burden the climate."*

The **Fact Sheet exercise**, presenting statistics on health, animal welfare, and environmental impact, served as a powerful mirror and prompted strong reactions. Most participants found the data **eye-opening** and **emotionally striking**, particularly when presented with quantified effects (e.g., "1 kg of beef = 15,000 litres of water" or "skipping meat = 1 million cars off the road"). Many found the data *"confrontational,"* as one participant described: *"You kind of know this, but when you see the numbers with sources, it really hits home."*

One particularly compelling reaction came after reading about pigs' intelligence and lack of daylight in industrial farming. *"That really got to me,"* admitted a 28-years-old women. *"It makes the issue very visual and emotional."*

Interestingly, **animal welfare** resonated even with those not previously engaged with ethical eating. A 35-year-old man, who began cutting alcohol and pork for health reasons, added: *"Animal well-being matters more to me now. I can't ignore it anymore."*

However, some participants expressed a sense of helplessness. One said, *"It's all very concerning, but what can I really do about it? I can't always afford the better options."*

There are variance among different some groups. The Dark Green groups already were familiar with most facts, and valued the data for *reinforcement* and *validation* of choices. Many participants from Prudent and Light Green groups found the information confrontational, and in several cases, transformative. For instance, a 28-year-old man said the water footprint of beef would push him to *"eat more chicken now."*

C. Transparency: A Call for Simplicity, Clarity, and Trust

When asked about **food system transparency**, participants gave a wide array of interpretations—from knowing the origin and ingredients to understanding production methods and labor practices. Furthermore, trusting the labelling / quality mark and claims are *true*, *clear*, and *not marketing spin*, is also essential element for transparency.

Participants mentioned 3 areas of barriers for transparency: Information overload from multiple keurmerken, Lack of **consistency** in presentation, and **Low trust** in commercial sources, especially among Light Green and Prudent citizens. Many participants, particularly those in the Light Green and Prudent groups, expressed frustration with **current array if labelling / quality mark systems**, often seen as **confusing, untrustworthy, or overly complex**. *"There are too many keurmerken,"* said 45 years old woman, mother of two daughters. *"I don't know what most of them mean anymore."*

Others, like a 26-years-old woman, expressed longing for a **single, credible label**: *"I need one simple sign that tells me what's in it, what's good about it, and why it matters."*

QR codes and Nutri-scores were viewed as potentially helpful, though opinions varied. While some praised Nutri-scores for their simplicity, others were skeptical. *"One brand of chips gets a better score than another—how is that possible?"* questioned 51 years old woman.

The desired improvements mentioned are:

- A **single, reliable label** integrating health and sustainability (e.g., Nutri-score + eco-score).
- **QR codes** for deeper info without crowding packaging.
- Government and independent institutions as **trusted messengers**.

D. Views on the "True Pricing" Concept

The **"True Pricing"** concept was explained first, as the majority of participants was not aware of it. After explanation, the idea of "True Pricing", i.e. displaying the real environmental and social costs of food alongside its retail price, generated **strong and varied reactions** across all focus groups. While participants understood the principle, their emotional and practical responses diverged by motivation type and socio-economic outlook.

General Perception Across Groups: Most participants described the concept as **"fair"** or **"honest"**, recognizing the intention to reveal hidden impacts and hold producers accountable. Many appreciated that "True Price" makes **invisible consequences visible**, offering a tangible link between personal

choice and systemic impact. As a 36-year-old woman said: *"It's good to know what something really costs the world. Right now, we only see the supermarket price, not the damage."*

However, there is clear skepticism as well. Participants questioned whether the system would be **transparent in practice**, who would **set or verify** these prices, and whether it would **actually change behavior** rather than just add guilt or confusion. A 48-year-old man said: *"I already find food prices high. If you tell me my apple is underpriced, what am I supposed to do? Feel bad?"*. A 32-year-old woman added: *"If it doesn't change the price I pay, it's just another label. If it does, people with money will be the only ones doing good."*

Differences by Group:

Prudent participants were the most **ambivalent** or **resistant**. While they acknowledged the moral logic behind True Pricing, they expressed **economic anxiety and fairness concerns**. They feared the system would **penalize low-income shoppers** while wealthier consumers could easily "buy their way out of guilt." As a 42-year-old man put it: *"I like the idea in theory, but for people with a tight budget, it's just punishment."* For this group, the **educational aspect** of True Pricing was appreciated more than any potential cost adjustment. They preferred **visual comparisons** (e.g., water use, CO_2) over higher checkout prices.

Light Green participants generally found the True Pricing concept **intriguing** and **educational**, but only if it remained **clear, visual, and optional**. They viewed it as a **conversation starter** and an incentive for brands to change production, rather than a direct consumer burden. As a 30-year-old woman mentioned: *"It's a good way to show impact. I might not change every purchase, but it makes you think."* Several participants suggested integrating True Price into **existing labels or digital tools** instead of displaying dual prices on shelves. They wanted **context**, not confrontation. A 39-year-old woman clearly expressed: *"Don't make me do math at the shelf. Just show the climate score next to the Nutri-score."*

Dark Green participants were the most **supportive and conceptually aligned** with True Pricing. They saw it as a **necessary step toward systemic accountability**, demanding that companies internalize social and environmental costs. Yet even they stressed that it must be **authentic and government-led**, not a **marketing ploy**. A 37-year-old man in this group said: *"True Price should be real, not greenwashing. If it's government-verified, it could finally change the market."* However, many noted that for True Price to have real influence, it must **affect production and taxation**, not just consumer awareness. They emphasized **structural impact over individual guilt**. *"Don't tell me I should feel bad. Make the polluters pay their real cost upstream.",* as a 29-year-old woman stressed.

Emerging Insights: Across all segments, the "True Price" discussion illuminated several deeper sentiments:

- *Emotional duality:* Consumers appreciate moral fairness but resist feeling shamed for systemic problems.
- *Desire for credibility:* Trust in True Price depends on its independence, transparency, and simplicity.
- *Socio-economic sensitivity:* Awareness cannot come at the expense of inclusivity.
- *Systemic expectation:* People see True Price as a tool for **producers and policy**, not just for consumers.

To summarize, while participants valued the **idea of honesty in pricing**, they wanted **clarity without guilt** and **systemic accountability** rather than individual blame. For most, True Price works best as an **educational and policy tool**—one that exposes the hidden costs of food but does not alienate or financially burden consumers. As a 50-year-old woman put: *"It's a great idea. Just make sure it's not another way to make poor people feel guilty about cheap food."*

E. Influences and Triggers for Change: Real Life, Real People

Food behaviour change was often prompted by **real-life events or trusted people**, rather than abstract knowledge:

- **Medical or health-related events and health diagnoses** of oneself of others close, e.g., cholesterol, asthma, heart conditions, weight gain
- **Life changes**, e.g., pregnancy, child birth, children leaving home, aging and friend passing-away
- **Social influence** and **pressure,** e.g., children becoming vegetarian, friends sending articles, pressure / influence from partners, children.
- **Public figures or media content**, e.g., Arjan Lubach, investigative programs, documentaries, influencers

Comparing different groups, **Dark Green** acted proactively based on internalized values, had often transitioned toward ethical consumption through **gradual internal motivation**, supported by factual learning and community reinforcement. **Light Green** and **Prudent** participants were **reactive**, requiring **external triggers**. Across groups, participants expressed a **desire to do better**, but highlighted the need for support, affordability, and trustworthy information to sustain change.

Health concerns such as high blood pressure, cholesterol, or asthma were strong motivators. A 45 years old woman, mother of two daughters noted, *"I stopped eating pork to lose weight. My dad and his wife influenced me. A friend also sent me a convincing article."*

Younger participants cited **coaches, trainers, and social media influencers**, while older ones were often influenced by **family or personal reflection**. A 41 years old man, a vegan, explained: *"My friends were already vegan. Then I saw a documentary and thought about how much water is needed to produce beef. That was the tipping point."*

F. Citizen Engagement Ideas / Propositions for Food System Transparency: What Resonates and What Doesn't

As clear evidences showed that citizens are not prepared to discuss True Price in isolation, but rather seeing it only as one of the tools for food system transparency, we have taken a broader approach in discussing different citizen engagement ideas with the groups, in which a set of 11 **engagement strategies** have been presented. Results revealed clear preferences and divergences.

Most Favoured Across Groups: Two engagement ideas/ propositions have been mostly appreciated:

- **School Education Programs (Idea 8)**: This idea has been universally praised by all groups. Participants highlighted the long-term cultural impact on both **children and families**: *""If children*

grow up learning this, they'll carry it into adulthood and educate their parents. It's a chain reaction," said a 45-year-old woman. *"Teach kids early and they'll influence the parents,"* said a 44-years old woman. Participants felt this had long-term potential for systemic change.

- **Food Sustainability Impact Score (Labelling / quality mark, Idea 6)**: This idea was supported in all groups. It's seen as a strong tool for everyday decision-making, especially effective if **simple, standardized, and backed by trusted sources**. *"If I see a climate score next to a Nutri-score, and it's simple and real, yes—I will be influenced,"* said a 20-years-old women.

Moderately positive / Mixed Reception - Taste Events (Idea 5) and **Farm/Company Tours (Idea 4):** These appealed to some, especially those who valued firsthand experience, and appreciated hands-on learning. Yet others were wary. Some saw them as *"romanticized"* or not scalable; *"A one-time farm tour won't change habits unless it's followed up with real tools." "I don't see this as a fun outing,"* one participant said. *"And I'm not sure I would believe the farm is showing me the full story."*

Least Favoured - Apps and Ambassador Programs: These were met with scepticism, viewed as impractical or preachy, pushy, unclear, or unappealing. One respondent noted about the Apps idea: *"I already cook every day. I don't need an app telling me what to do." "I wouldn't push other people. Everyone should make their own choice,"* explained a 65-years-old man as why he doesn't like the idea about the Ambassador Program.

G. Information Sources: Trust Is Everything

Participants expressed a strong desire for **transparent, independent, and practical information sources**. The most trusted entities included:

- **Independent watchdogs and consumer organizations** (e.g., Keuringsdienst van Waarde, Consumentenbond)
- **National government and health authorities**, especially for setting rules and ensuring standardization
- **Scientific institutions and universities**, perceived as neutral and credible

Supermarkets and food producers were generally distrusted as information sources as they are viewed as **profit-driven**. *"They're not here to help us, they're here to sell,"* remarked one participant.

H. Role of the Citizen: Modest Steps, Shared Responsibility

Participants often saw themselves as **part of the solution**, but not in control of the full picture. Many participants acknowledged the need for personal responsibility, and described a desire to make better choices, but recognized the limitations of individual action due to **systemic barriers** around the higher cost of sustainable options, lack of trusted or visible information and time pressures and habits. Most saw themselves as **willing but limited** agents of change. *"I can do small things, but the system needs to support better choices." "If sustainable food is always more expensive, it won't work."*

They emphasized that while individual choices matter, **governments, supermarkets, and food companies must lead the way** in enabling better behaviour. Several suggested that **making the better choice the default** would help.

“Make the good food the easy food, not the expensive or confusing one.”

Still, there were sparks of **hope and agency**. *“I’ll talk to my best friend about what we buy,”* said a 28-years-old women. *“We didn’t know how impactful vegan food is on the climate. So now we share that info.”*

Several participants discussed *“voting with your wallet”* or *initiating conversations with friends, children, or colleagues*. A 41-years-old man from the sustainable-driven Dark Green group reflected, *“If everyone just bought local organic food, big corporations would have no chance. We hold the power.”*

6.3 Key Takeaways

These discussions revealed a public that is increasingly aware of the connections between food, health, sustainability, and ethics—but not always equipped or empowered to act on that awareness. People want help making better choices but are overwhelmed by complexity and wary of greenwashing.

To conclude, here are the insights **across all groups**:

1. **Health concerns drive action across all segments**.
2. **Taste and price remain barriers**, even for ethically motivated citizens.
3. **Transparency is desired**, but current systems are fragmented, complex, and poorly trusted.
4. **True price** concept is an **interesting tool among others for enhancing food system transparency**, appreciated for exposing hidden environmental and social costs. Yet, it should inform policy and corporate accountability, not penalize individual consumers.
5. **Facts have power**: well-sourced, visualized data can shift perspectives—even among price-conscious citizens.
6. **Education and labelling / quality marks** emerged as **low-barrier, high-trust tools** for behavior change.

More specifically, the insights of **different types of citizens** are summarized below:

Table 2: Overview of Citizen Segments: Priorities, Trusted Sources, and Barriers to Change

Group	Key Priority	Most Trusted Source	Barrier to Change
Prudent	*Price, habit* Motivated by affordability, convenience, and familiar routines. Ethical concerns are acknowledged but rarely acted upon unless triggered by price, social influence, or media.	Government, friends	Low affordability of sustainable options Low engagement with information unless simple and direct Resistance to change unless socially reinforced
Light Green	*Health, convenience* *Care deeply about health, are emotionally responsive, and open to ethical or environmental issues—when it fits into their lifestyle.*	Experts, coaches, children, schools, media and practical tools	Information overload or label confusion Time constraints Occasional skepticism about credibility
Dark Green	*Ethics, climate, health* Highly committed, informed, and active. Already align their values with behaviour. Seek systemic change and better infrastructure to support responsible consumption.	NGOs, documentaries	Frustration with systemic inaction or lack of credible info Feeling of isolation or lack of scale Skepticism of industrial system. Mistrust of industry motives

This study reveals a public that is increasingly aware of the implications of what's on their plate—but still navigating how to align values with choices. People want to do the right thing. What they need is **clear guidance, systemic support, and affordability** to make better food choices the easy default.

"It's not that I don't want to change," one participant said, *"It's just—make it easy for me to do the right thing."*

7 Aggregated Learnings & Preliminary Conclusions

With the key findings from different parts of the research discussed in the previous sections, we can now aggregate the key learnings in six key topics that are important input to the potential citizen engagement strategy. Due to the fact that some important pieces of information are mainly from qualitative and explorative research, such as target group and value propositions, we could only draw *preliminary conclusions* on them.

1. Food Choices for Dutch Citizens

Both desk research and qualitative citizen focus group research have clearly indicated that food is a highly important topic for people, charged with a strong emotions. When making food choices, **there is a strong tension between taste, health and affordability** drivers.

Taste is the most fundamental driver for food choice. Focus group results reveal that people (regardless of age, gender or ideology) strongly believe that food must be enjoyable. Quantitative research (Moleman, 2024) also showed that taste was the most important barrier for changing from animal-based to plant-based food.

Health is the universal concern and the next most significant driver for food choices. Personal well-being, weight control, fitness goals, or medical conditions and diagnoses frequently motivated shifts in food choices. This is aligned with the quantitative research result that indicating health as the key driver that motivates less animal product consumption (78%), and at the same time, as the key barrier preventing from less animal product consumption (74%), with the belief of animal products being necessary for a healthy diet (Moleman, 2024).

Affordability is crucial in influencing food purchases strongly. Though more highlighted by Prudent price-sensitive citizens, it was acknowledged as a constraint by participants across all segments. Citizen panel report showed “Price mechanisms” as the winning solutions proposed by citizens, which should make plant-based foods cheaper and animal-based foods more expensive through tax reforms and subsidy removal (Onderstroombureau, 2024). This is further supported by the quantitative evidence indicating two-third of respondents support a ban on extreme discount pricing of animal products (“kiloknallers”) (Moleman, 2024).

Ethical drivers, such as animal welfare, environmental concerns, and labour rights, were acknowledged by most groups. Quantitative evidences showed that **there is a general awareness of the ethical impact of food choices** and over two-thirds endorse the government’s 50/50 protein target for 2030.

Though spontaneous awareness regarding the broader impact of food choices clearly exist, **quantified facts and figures are less known and could serve as a powerful mirror and prompted strong reactions and impact**. Citizen panel report clearly showed the impact of expert dialogue (Onderstroombureau, 2024). This is also further supported by the qualitative focus group results, as most participants found the data-driven facts eye-opening, confrontational and emotionally striking.

Research evidences showed **different levels of influence among various ethical drivers**. Quantitative research revealed that the top important reasons for reducing animal consumption were *animal welfare* (86%), biodiversity and deforestation (87%), whereas *climate change* came after (73%). Qualitative focus groups showed animal welfare being a stronger driver than environmental impact in their food choice

considerations, whereas social impact being at the third place. However there is a large individual difference, unrelated to specific segment.

The results from qualitative focus groups indicated that how ethical factors influence on food choices varied greatly among different groups. *Dark Green* participants explicitly integrated ethics and sustainability into their food purchasing. *Light Green* groups primarily acted upon when health or convenience aligned with values. *Prudent* group often default to routine purchases unless ethical food choices were triggered by other external factors such as sales/price discount. However, further quantitative research is required to further validate these learnings.

Quantitative research has revealed the **evolving eating patterns towards less animal-based consumption**, as 53% of Dutch citizens identify with a reduced-meat diet (vegan 2%, vegetarian 7%, flexitarian 45%) (Moleman, 2024). Furthermore from intention perspective, half of Dutch people indicated their intention to eat less meat. Lower shares want to reduce fish (26%), dairy (21%), cheese (20%), and eggs (16%).

Lastly, **broad support for the transition** is evidential. **Two-thirds (66%) of Dutch citizens support the shift** toward a more plant-based, less animal-based food system. Support is stronger among women, young people, urban residents, and higher-educated groups but is present across demographics.

To conclude: Whilst people are aware of the ethical impact of food choices and are supportive of the food system transition, the top drivers for food choices are primarily taste, health and affordability. Among different ethical drivers, animal welfare seems to have more impact than climate change.

2. **Societal Need for Food System Transparency**

Research evidences have showed that there is **a strong societal need for food system transparency at large, rather than only focusing on True Pricing alone.** Both citizens and experts believe strongly the value of transparency for the sustainable food system transition.

Though there is a common desire for food impact transparency among citizens, the interpretations varies from knowing the origin and ingredients to understanding production methods and labour practices. **Quality marks and labelling** on product packaging have been referred as recognized ways for transparency most often. Information complexity and overload from multiple labelling (keurmerk), lack of consistency in presentation, and low trust in commercial sources are seen as the three main barriers for transparency.

All **experts** interviewed were **in favour of increasing food system transparency**, and applauded **the effort to develop a citizen engagement strategy that brings more transparency** to support food system transition. Experts call for **one method** to align proliferating labels and KPIs across the whole food ecosystem/sectors. They plea for “unifying KPIs in reporting and… reward farmers” to make significant impact.

QR codes and Nutri-scores were viewed as potentially helpful means for transparency by both experts and citizens, though opinions varied. While some citizens praised Nutri-scores for their simplicity, others were sceptical. Trusting the labelling / quality mark and claims are *true*, *clear*, and *not marketing spin*, is essential element for transparency.

To conclude: There is a strong societal needs for food system transparency. Both citizens and experts believe its value for the sustainable transition. Labelling/quality mark is currently recognized most often as the main means.

3. True Price as a mean for Food System Transparency

The majority of people (70%) are not aware of "**True pricing**" concept. When being made aware, the willingness to pay is vastly limited. People see it as an impactful information and transparency tool to guide food choices rather than accepting it as a surcharge mechanism (van Haaster-de Winter et al., 2025). Citizens valued the **idea of honesty in pricing**, as it brings transparency, clarity and accountability on the societal and environmental impact of the food choices.

Similarly, experts also see the great value that True Pricing / True Cost Account could potentially bring for the transparency of the food system, as they believe it can help food value chain players to prioritize their business choices with quantitative guidance. However, they believe that voluntary additional payment will not lead to the desired scalable change.

Research results also showed that other tools, such as quality mark / labelling are recognized as more familiar tools that are already influencing food choices. True Pricing has been recognized as *one additional tool* that help bringing further transparency in the food system. Citizens and experts do not view True Pricing discussion in isolation, but see it as one of the tools in a bigger food system transparency toolset that should be leveraged by different actors.

In the light of reducing complexity and confusion, citizen focus group and expert interview results search suggest to integrate True Pricing with labelling / quality mark as it provides hard data to support a simplified (traffic-light style) and standardised labelling.

Furthermore, Desk research, focus groups and interviews agree that in order to engage the majority, True Price should be the default at point of decision, so the 'best' choice becomes the easy, normal choice without removing freedom.

Both citizens and experts suggest to leverage True Pricing for educational purpose, and as a government policy tool that exposes the hidden costs of food. However, it should not alienate or financially burden consumers.

In conclusion: True Pricing is seen as one of the means to support food system transparency that could be of different values for different parts of the ecosystem, among which as a guiding tool for business improvement prioritisation and government policy making, as a quantification support for labelling and quality mark, and as an educational and communication tool for citizen engagement.

4. Citizen Segmentation and Targeting

Desk research has revealed mainly two segmentations used for food consumption and sustainable transition. The practically based segmentation, with a mix of attitudinal and behavioural factors, consists of 3 broad segments, (Prudent, Light-Green and Dark-Green). The Motivation-driven segmentation from Motivaction, on the other hand, consist of 8 segments, based on deep motivations, attitudes, beliefs, and life values. Our qualitative research, which is based on the practical segmentation, has discovered different food choice drivers and barriers for different segments. "Prudents" are budget-conscious,

habitual buyers, with little sustainable food action unless socially prompted. Their key drivers for food choices are price and habit. “Light-Greens” are emotionally engaged and open to ethical issues when it fits into their life style. Their key priorities are in health and convenience. “Dark-Green” are highly committed, informed and already align their values with behaviour. Their priorities are ethics, climate and health. They seek systemic change and better infrastructure to support responsible consumption.

While highlighting the transition tipping point being 25-30% adoption of responsible behaviour, experts suggest to focus on the “Light-Green” as the primary target group for citizen engagement strategy. In addition, the “Dark-Green” people do not yet feel comfortable to advocate the desired food choices openly. There exists an untapped potential to motivate them to voice their opinions and influence social norms through the strategic use of salient events.

To conclude preliminarily (subject for further quantitative validation): The “Light-Green” segment could potentially be the core target group for the citizen engagement in order to be effective in reaching the transition tipping point, whilst “Dark-Green” segment could be leveraged to advocate for and established new social norms.

5. Role of Different Actors

Both expert and citizen research results showed that it is not only welcomed but also necessary that the government should lead the citizen engagement strategy on food system transparency.

Consistent with the conclusions from the previous report (Joosten-Ma & Aragon Moran, 2024), **experts** believe an ecosystem approach: *Government* to set guardrails and convene, *retailers/caterers* as primary citizen touchpoints, *NGOs/consumer groups,* for trusted information translation, *farmers* as potential allies (if supported with fair prices, longer contracts, and transition finance), *investors and reporting actors* are important to ensure resource and incentives to shape transparency, *schools and universities* for educations. In the meanwhile, caution has also been given by experts about the potential resistance of *feed companies* and *parts of the meat/dairy value chain*, due to their different objectives. Furthermore, they repeatedly cited schools, public procurement, workplace catering as early-scale “assets” to educate and normalize practices before retail roll-out.

Desk research on other societal transitions highlights the pivotal role of regional and local actors, such as municipalities. It shows that providing sufficient funding and clear, standardized mandates is essential for enabling local governments to implement and enforce transparency measures effectively, and to prevent uneven or merely symbolic adoption across regions.

Citizens often saw *themselves* as part of the solution, but not in control of the full picture, as they recognized the limitations of individual action due to systemic barriers around the higher cost of sustainable options, lack of trusted or visible information and time pressures and habits. They emphasized that while individual choices matter, making the better choice the *default* would be essential. They expressed their desire for transparent and practical information (e.g. True Price) from trusted and independent sources such as national government, NGOs, scientific institutions and consumer organisations. They see the integration of food impact knowledge to school education as essential, and the exposure to alternative food choices at workplace catering as helpful experiential opportunity.

To conclude: Government is expected to lead the citizen engagement program, while leveraging all key actors in the ecosystem of food to play their respective roles. Independent authorities are critical as trusted information sources.

6. Principles Of Citizen Engagement Strategy

From the desk research, qualitative focus groups and in-depth expert interviews, six principles have emerged:

1. Clear **goal setting** is required to drive successful citizen engagement. The goal setting should define the societal outcomes to be achieved with the citizen engagement on True Pricing and its role in food system transparency, and the desired specific behaviours to influence. Furthermore, explicit and measurable objectives are also need to guide the design and evaluation of the engagement program.
2. **"True-pricing" should not be treated as a standalone topic**, but rather as part of the toolset for food system transparency. **The Integrated citizen engagement strategy should address food system transparency as a whole**, in which True-Pricing" can be leveraged to support education and communication, as well as labelling quantification and standardisation.
3. The **two-way participation of citizens and the critical actors** of the whole food ecosystem is of essential importance for the successful citizen engagement. Social marketing literature has shown the significant benefit of participatory components in successful social marketing programs. Citizen panel also showed stronger enthusiasm after citizens have participated in the interactive panel. In the focus group discussions people also responded positively to the participatory engagement ideas, such as citizen forum, neighbourhood events and producers interactions.
4. It is critical to **manage the affordability** in the citizen engagement strategy. On one hand, affordability concerns is one of the top three drivers for food choices. The desired food choices would be adopted by the masses only when their prices are on par and affordable for the majority of people. On the other hand, both focus groups and expert interviews warned that low-income households need income measures and visible fairness to avoid a backlash.
5. It is important to **consciously reduce reactance and prevent polarization**. Research has shown that food is a highly sensitive, personal and emotional topic. People have a strong need to feel that they have the freedom to choose. Keeping choices available is essential to reduce reactance, whilst the desired choice could become the default at the point of purchase. In addition, experts warned the polarization effect that politicians and media could generate. Solution-focused messaging could mitigate the risk of polarization.
6. **Researching and piloting citizen engagement approaches locally/regionally** help build an effective citizen engagement strategy and program. Social Marketing literature has clearly demonstrated the critical role of marketing research in helping develop an effective and efficient social marketing strategy. It not only informs the strategy with the right choices, but also saves resources by preventing ineffective options. Experts interviewed also highlighted the value of real-life pilot and experiment in facilitating learning and building up community, as seen in True Pricing experiment and other social marketing examples.

In conclusion: Clear goal setting, integrated toolset including True-Pricing, two-way participatory approach, managing affordability, reducing reactance and preventing polarization, researching and piloting approaches are important principles to follow, in order to develop a successful citizen engagement strategy.

8 Preliminary Recommendations

Based on the aggregated results and preliminary conclusions above, we would like to provide below *preliminary recommendations* as the base for further discussions and validations. Notion needs to be taken that these are for the government as a whole, not particularly only for the ministry of LVVN, as some recommendations need strong involvement of different ministries.

1. **Expand citizen engagement focus from True Pricing to food system transparency**:

Although the starting point of the project was the True Pricing, we recommend to expand citizen engagement strategy to food system transparency as a whole. Citizens and experts believe that the food system transparency is a very critical enabler for food system transition. In this broader context, True Pricing is valued as *one of the important tools* that could work together with other tools, such as labelling and quality marks, impact information and story-telling. In particular, continuing True Pricing's presence in public procurement and workplace catering is helpful to demonstrate feasibility, normalize practices, and build momentum ahead of broader retail scaling. With the expanded scope, it is important to set up the citizen engagement strategy in a structured and integrated way that leverages all different tools with clear defined roles and objectives, instead of only focuses on True Pricing. Furthermore, standardization of individual tools such as labelling would increase the consistency and credibility.

2. **Structural government-led effort to develop citizen engagement strategy with an aligned goal setting and long-term programming.**

Three facets are included in this preliminary recommendation: developing citizen engagement strategy with structural and consistently effort, aligning goal setting among key stakeholders before firming up the strategy, preferably with broader societal transition goal of the government to prevent adding complexity; supporting the strategy with long-term programming, with sufficient resource and support, as well as clearly defined ownership.

3. **Further quantify target group definitions. Consider focusing on the "Light-Green" segment as the core target group in the current phase, while leverage the advocacy role of "Dark-Green".**

We recommend to consider the "Light-Green" segment as the primary target group potentially, with the objective of turn the open-mindedness to actual desired behaviours in food consumption and voting. By further validating the insights that define this segment, developing and delivering the value propositions that address their specific dilemmas and needs, and leveraging the "Reasons-To-Believes" that specifically resonate with them at the relevant touch points in their "citizen-journey", their behaviour change could be triggered and facilitated effectively, which help moving the societal change to a critical mass.

We also recommend to consider leveraging the "Dark-Green" segment as the potential influencer, with the goal to empower them to become strong advocator, based on further validated insights and value propositions that effectively address their needs and remove the barriers for them.

We recommend not to focus the engagement strategy on the “Prudent” segment in the first phase. However, general public communication and education could be used to keep them informed and maybe even triggered with the relevant information, thus reduce their resistance and increase their open-mindedness. It is important to avoid intrusive language in public communications that make them feel being pushed or blamed, and be sensitive to their potential resistance.

4. **Leverage the contribution of key actors, but also support their efforts effectively.**

While the government should lead citizen engagement strategy development and execution, we recommend to adopt the ecosystem approach and leverage the contributions of all key actors: leverage *retailers/caterers* as primary citizen touchpoints for default-offering improvement and effective POS engagement and triggers, *knowledge institutions, NGOs and consumer organisations* for reliable and trusted information on societal impact of food choices, *farmers* as potential allies in bringing desired product offers at the required scale; *producers* as important place to bring sufficient products with the on-par taste, quality and price, *investors and reporting actors* for their important roles in ensuring resource and incentives to shape transparency, *schools and universities* for their essential roles in education, *research institutions* for generating and disseminating knowledge objectively and continuously, and *media* for their powerful communication effectiveness to their relevant target groups,

While leverage different actors in the food ecosystem, it is equally important to **enable and support them** to succeed despite the constrains of the existing economic system, with means such as subsidies and tax incentives. This could include but not limited to policy and regulation support in fair prices, longer contracts, and transition finance. In the meanwhile, we recommend to be mindful and come up with structural plan to manage the potential resistance of feed companies and parts of the meat/dairy value chain through relevant transition incentives.

5. **Apply the engagement principles in strategy setting and programming.**

We recommend to apply the engagement principles with below aspects:

1) **Set up clear goals and objectives**, not only at the overarching level for the integrated engagement strategy for the food system transparency, but also granularly for specific tools (such as the goal for True Pricing), for different target groups and different phases of transition.
2) Put the **two-way participation of citizens and the critical actors** of the whole food ecosystem at the core of the citizen engagement strategy and programs, and install mechanisms for transparent information sharing and participatory two-way interactions.
3) **Manage affordability continuously** in the citizen engagement process with great sensitivity. At any given moment with any engagement value propositions, a clear solution needs to be developed on how affordability could be carefully ensured and communicated. This could be in the format of (but not limited to) fair comparative on-par pricing, support to low-income households, and subsidies for desired product choices.
4) **Consciously reduce reactance and prevent polarization** by keeping choices available while highlight the desired ones as the default option at the point of purchase. Develop solutions-focused messaging and proactively engage with critical politicians and media channels in order to mitigate the risk of polarization.
5) **Research and pilot citizen engagement approaches** locally/regionally before firming up the national-wide citizen engagement strategy and program, with the pilots carefully designed to cover a

variety of different aspects of engagement program to ensure structure learnings and broader applicability potentially.

6. **Further shape value proposition development with quantitative validation, building on the key drivers and dilemmas of relevant target audience.**

We recommend to further shape value propositions with quantitative validation, integrating the key food choice drivers (taste, health, and affordability) as essential foundations for effective value propositions. By positioning True Pricing as a quantitative tool for informing policy, procurement, and business improvements (not as a consumer surcharge), communication can focus on tangible health and relevant ethical benefits that are most valued by target audience. Reliable and emotionally engaging information from trusted independent institutions should underpin the “Reasons-to-Believe,” complemented by proactive, multi-format engagement materials ready for timely deployment around salient events (e.g., price changes in key products). Additionally, introducing a pilot “School Food Education Program,” creating a clear and standardized “Food Sustainability Impact Score,” and testing interactive experiences like “Taste Events” and “Farm/Producer Tours” will deepen public participation. Furthermore, we recommend to allow time and support the food value chain players to develop appealing, competitively priced sustainable products in order to enable widespread behavioural change and mainstream adoption.

7. **Phase citizen engagement strategy and program based on market readiness.**

We recommend to phase citizen engagement scenarios according to market readiness, specifically the availability of products that are on par in taste, quality, and price. Quantified target group insights and validated value propositions should guide a step-by-step, evidence-based development plan. In order to reach the goal that the majority citizens consistently demonstrate desired behaviours, citizen engagement should progress in three broad phases: initially focusing on converting “Light-Green” consumers from open-mindedness to actual behaviour, and empowering “Dark-Green” advocates when product availability is limited; then expanding efforts to establish supportive social norms and affordable access as availability grows; and finally stabilizing mainstream adoption once sustainable products dominate the market and behaviour surpasses the tipping point. Because product readiness will evolve over time, continuous research is essential to define engagement strategies and approaches for each step by understanding motivation, opportunity, and capability for each relevant segment at the given time.

9 References

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