forum for the future
action for a sustainable world

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cider futures

A vision for a sustainable cider industry in 2022

Preface

This report, *Cider Futures,* was produced by Forum for the Future as part of the National Association of Cider makers (NACM) ongoing sustainable development strategy. The process, details and outcome of the preceding study are included in the report.

Since the report's initial internal publication in 2008, the NACM has continued to work with Forum for the Future on how to translate the vision statements into actual strategy.

It has been decided that as the NACM is a trade association it would be inappropriate for the NACM to attempt to dictate a vision for its individual member companies. Their individual business strategies are their own affair. However the NACM is committed to the cider industry being sustainable by 2023 in that it will, as far as it can, have mitigated any harmful impacts in the key areas of social responsibility and the environment, and will have enhanced any beneficial impacts wherever possible. The NACM will actively encourage member companies to use *Cider Futures* as a strategic development tool and as a check & balance for major new initiatives and direction within their companies.

Cider Futures will be used to inform the NACM's sustainable development strategy and as a benchmark to ensure collective, industry level progress is being made.

In this way we believe the vision contained in *Cider Futures* will, over time, not only become a reality for all of the member companies but that each company will move towards it in a way which best suits them.

The NACM intends formal reviews of the Futures work every two years to check the scenarios are still valid, given external changes and events and to check that progress at an industry level is being made.

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NACM, May 2009.

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1 executive summary

Background and process

This report has been prepared by Forum for the Future for members of the National Association of Cider Makers.

Thinking in a structured way about the future is important in formulating truly challenging and inspiring visions for companies and industries. By conducting this exercise in futures thinking, the NACM has been able to consider the possible worlds in which the cider industry might be operating in 2022, and thus develop a robust vision for a sustainable industry by that date. This report summarises the process, findings and recommendations from the project.

The process began with desk research into the key factors affecting the cider industry over the next 15 years. Interviews with key figures in the cider industry, stakeholder groups and sustainability experts were also conducted to gauge their perspectives on the most important events affecting the cider industry and its sustainability to date, and what factors are most likely to be significant in the future.

From this platform, the top forty factors affecting the future of the cider industry were identified. Variations in how these factors develop over time formed the basis of four scenarios.

Scenarios

The scenarios describe four plausible, possible and internally coherent worlds in 2022. The scenarios contain sufficient detail for the cider industry to be able to critically assess its operating context, and thus identify the potential risks and opportunities associated with each scenario.

Scenarios are not predictions, and no one scenario is designed to be more likely than the others. Each paints a different picture of what is possible in 2022, and each has its own positive and negative features. Scenarios are useful tools for strengthening strategic direction and policies, so that they are robust enough to be effective in different situations.

<u>Scenario one</u> *presents a complex world in which people have a high desire for 'connection' – to goods, services, and each other. A strongly local world, such is the success of peer-to-peer retail and independent set-ups such as farmers markets, that some big retail chains have had to adopt to become forums for these types of selling.*

In sustainability terms at least, <u>*scenario two*</u> *represents a more mature and sophisticated world, where a desire for 'connection' still exists but most people recognise that the subtleties of sustainability mean that global can be as 'good' as local, but in different ways. The demand for complex information in this scenario has provided the impetus for innovation that allows consumers to wave their mobile phone over any product and receive a full information update on all the issues that matter to them.*

Consumerism is a dominant force over sustainability in <u>*scenario three*</u>*. It's a world in which policy tends to 'treat the problem', which has been effective in areas such as health and crime, but as alcohol is seen as a 'problem' in itself, the issues surrounding it have been somewhat demonised. There are a growing number of alcohol-free communities in this scenario.*

A focus of <u>scenario four</u> is on energy efficiency to help prevent worsening climate change. Carbon rationing has been introduced so people are keen to buy energy efficient, low carbon products as well as cheap ones. Policy treats the root of the problem but has been less successful for alcohol harm reduction. This is largely down to the lack of 'connection' and the focus on climate change, which means less action has been taken to help solve underlying social problems.

Although each scenario offers a different set of circumstances for the cider industry to contend with, some risks and opportunities emerged strongly in more than one.

Pressure on land could be a significant risk. The food versus fuel debate, in conjunction with demands for housing for a growing population, are likely to push land prices up. Although there are also a number of risks inherent in the scenarios where alcohol is demonised, there are also opportunities in differentiating cider as a different type of alcoholic drink – as part of the solution, rather than the problem. As one example, offering a range of quality lower alcohol ciders could be advantageous in this type of world. Lower alcohol drinks could also capitalise on a key opportunity in scenarios where health concerns are prevalent in the population.

Positioning cider as a premium, authentic product is also a significant opportunity in more than one scenario. In those worlds where sustainability features high in the concerns of the consumer, cider's credentials in this area are likely to be key. And in all scenarios, the provenance of cider can be a key selling point – whether this focuses more keenly on its local, regional or national affiliations.

Vision

The vision was constructed to reflect the requirements and aspirations of the cider industry as a whole for fifteen years' time. It is not expected to initiate an overnight transformation, rather a long-term commitment is key.

Covering social, environmental and economic sustainability, the vision has been tested for robustness against each of the four scenarios.

The summary of the vision for 2022 that follows should be read in conjunction with the full version (pages 15-17 of this report) to understand its full range of long-term goals and implications.

"A wide range of ciders is enjoyed by many in a responsible way. The cider industry is diverse and dynamic, and is a thriving part of local and national cultural life. The cider industry is economically successful, innovative and open, and its members speak together with a strong, clear and credible voice. The industry is committed to continuous improvement in sustainability standards throughout the value chain and supports its members by sharing best practice. It is carbon positive and waste-minimising, managing water proactively and supporting biodiversity wherever it operates. As such, the cider industry is celebrated as a leader in sustainable development, and its leadership extends beyond its members to the alcohol sector as a whole, and beyond."

Implications and recommendations

When considering potential future strategies, tensions between alternative choices inevitably emerge.

An example of an emerging issue is whether labelling is the best way to educate the consumer? If cider to be the sustainable drink of choice, what is the best way of communicating this? An additional challenge is the question of what measures the industry can adopt if the core of the sustainability debate becomes about reducing overall consumption (and what similar measures should be adopted anyway), in the challenge to get more commercial value out of less material resource.

In the future there may even be questions around the overall viability of cider as an industry. The industry may need to adapt radically to the emerging reality, and as such should be prepared to review the vision and accompanying action plan with an open-mind, on a biennial basis.

To maximise the impact of this vision for a sustainable cider industry, Forum for the Future recommends:

1. An action plan is developed as quickly as possible to implement the vision, defining priorities and responsibilities, the need for further research, and exploring what 'leadership' looks like.
2. Formal analysis amongst the NACM member companies of what the long-term vision will mean for them.
3. Commitment to the vision is integrated into the NACM's membership requirements, and support networks are set up to assist members in making the necessary changes over the long term.
4. The vision is launched quickly (to maximise leadership potential) and a comprehensive consultation and communication plan to all stakeholders is developed and implemented.
5. The entire life cycle and supply chain of the cider industry is reviewed, to identify both the sustainability impacts at each stage and how to reduce them (either directly or by supporting suppliers to do so).
6. The investment and resources needed to achieve the vision are carefully considered and planned out.
7. Individual organisations within the cider industry make use of the scenarios and the vision as tools in their own strategic planning processes.

2 introduction

2.1 Why futures…and why now?

Thinking in a structured way about the future is important in formulating truly challenging and inspiring visions for companies or industries. By channelling the thought process 10, 20 or even 50 years into the future, it is possible to move away from immediate limitations and be able to consider what fundamental goals should be put into place.

In this piece of work, the timescale used is 2022, a date far enough away to be genuinely stretching and require some imaginative leaps, but close enough so that it is possible to imagine how a vision for the industry might begin to be built into the plans and actions of today.

At a time when sustainable development is truly becoming a mainstream issue, the cider industry is well placed to be a leader in this field. By undertaking this work the NACM is ensuring that the industry takes steps that are inherently responsible as well as strategically advantageous.

2.2 The process

Research [Oct & Nov 07]

Desk research – at the initial stages of this project, research was conducted by Forum for the Future into the sustainability issues and challenges for the cider industry specifically and the alcohol category more widely. A list of papers consulted is included in the references section in the appendix (6.7).

Retail Futures – this project has drawn significantly on this piece of work. Conducted by Forum for the Future in association with Tesco and Unilever, it explores four possible scenarios for the future of retail in 2022 and the implications for sustainable development.

Interviews – interviews were conducted with several members of NACM and other key stakeholders and sustainability experts [See full list of interviewees in appendix 7). The interviews explored the key factors that could be affecting the cider industry over the next fifteen years, what events had been instrumental in bringing the industry to its current position, and what the interviewees' hopes and expectations were around a sustainable cider industry.

Factors [Nov 07]

The information gleaned at the research stage was used to identify the most important factors likely to affect the future of the cider industry. These factors ranged from macro-level trends such as population levels and climate change, to cider-specific variables such as the level of excise duty imposed. The list consisted of around 120 factors, which were then each assessed and prioritised by Forum for the Future, to give the top 40 outlined in the table in Appendix five. The prioritisation was based on relevance to the cider industry, magnitude of potential impact, and level of uncertainty as to outcome. The resulting list can be used as a resource in itself for long-term planning within the industry.

Scenarios [Nov 07]

The factors were then used to construct four scenarios. The scenarios are four plausible, possible, internally coherent 'worlds' in which the cider industry might have to operate fifteen years hence. No scenario is designed to be more 'likely' than another. The aim is not to predict the future but to make informed guesses about possibilities, to surprise and challenge the industry and its current viewpoint. The scenarios were of course designed to be relevant to the cider industry, but they do not describe the industry itself.

Vision [Dec 07]

The ultimate purpose of this piece of work is to identify a vision for a sustainable UK cider industry in 2022. A draft of the vision was developed by Forum for the Future, building on the organisation's knowledge of sustainable development and the aspirations of the NACM identified at interview stage.

Workshops: **exploration and refinement of scenarios and vision** [Dec 07]

Two day-long workshops were conducted on 10th and 11th December. These were used to: explore the scenarios further, and identify the risks and opportunities to the cider industry in each; to develop and refine the vision, and test its robustness against the risks and opportunities from the scenarios. Members of the NACM were present for both days, and the first day of the workshop had in addition a much wider group of stakeholders present. The process used in the workshops is summarised in Appendix one.

Analysis [Jan 08]

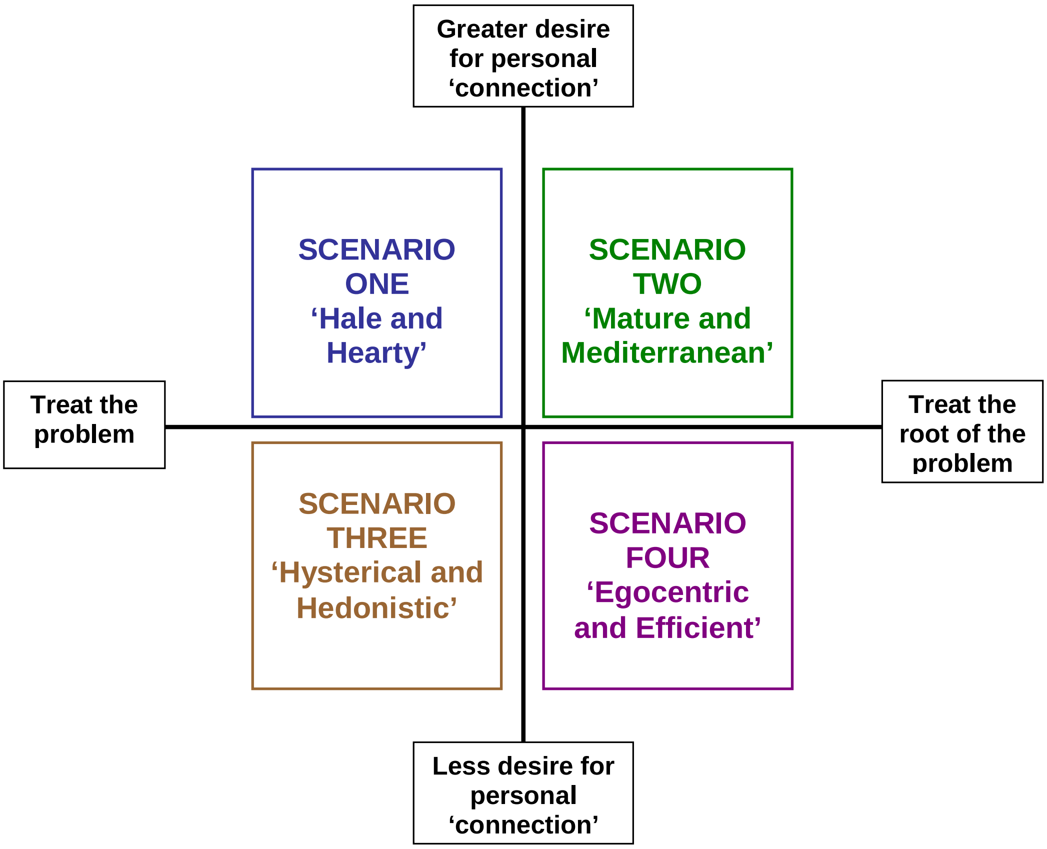
Further analysis and review were undertaken by Forum for the Future, building on the outputs from the workshops. As part of this process Forum compiled a set of recommendations for the NACM moving forward (detailed in section five).

3 strategic tools for the cider industry

3.1 Scenarios

The four scenarios below are based on trend analysis and the informed opinions of several experts from the cider industry, its stakeholder groups and the sustainability field. They combine the factors from the prioritised list (in Appendix five) in plausible ways, to create worlds that can be used to test the cider industry's prospects and strategies moving forward.

The scenario axes are based on two of the factors considered to be both important and uncertain in influencing the future of cider: the extent of people's desire for 'connection' (to goods/services, the land, each other); and whether policies tend to treat the root of problems or the problems themselves.

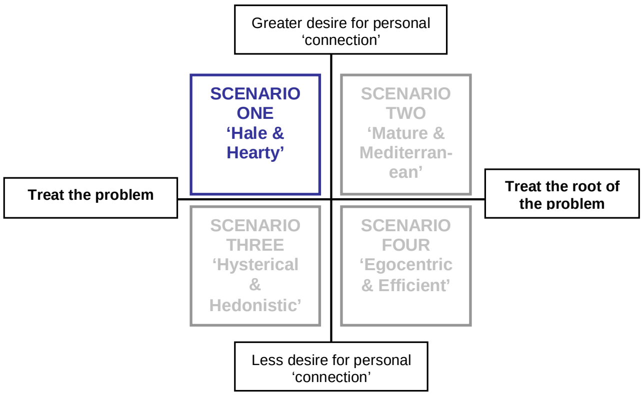


In scenario one, 'Hale and Hearty', there is a high desire for personal 'connection', and policy tends to treat the problem.
In scenario two, 'Mature and Mediterranean', there is a high desire for personal 'connection', and policy tends to treat the root of the problem.

In scenario three, 'Hysterical and Hedonistic', there is less desire for personal 'connection', and policy tends to treat the problem.
In scenario four, 'Egocentric and Efficient', there is less desire for personal 'connection' and policy tends to treat the root of the problem.

Full descriptions of each of the scenarios are in Appendix six.

3.1.1 Scenario one: 'Hale and Hearty'



Key words
Localism, new social movements, health-obsessed, moralistic, alternative, knee-jerk, disorganised, complex, diversity, regional

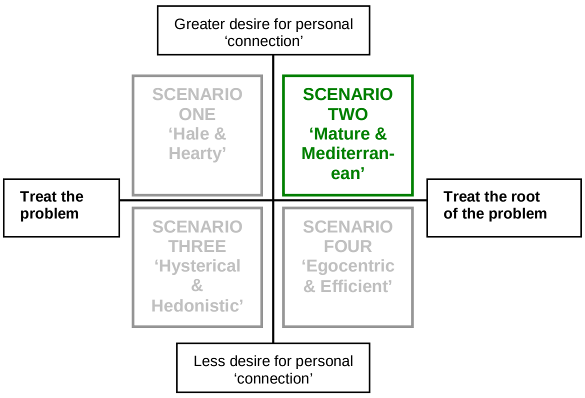
Summary
- In this world there is a high desire for personal connection to the origins and provenance of goods and services – a 'local is best' attitude dominates
- Retail channels are diverse; farmers' markets are thriving
- Health is high on people's agendas, and society is generally quite moralistic
- Policy tends to treat the problem rather than addressing root causes – alcohol is seen as a problem in itself
- Localism is a strong movement, and there is a diversity of community activity, particularly with regards to energy generation
- The UK is more devolved, and there is a revival of the regional agenda

Risks and opportunities in scenario one

Risks	Opportunities
There is intense pressure on land. This is due both to a rising population, and the food vs.	Cider could be well placed to capitalise on the demand for premium, authentic products. Its

fuel debate. With these conflicting pressures cider-making is unlikely to be seen as a priority for legislation on land use, and high land prices may force cider mills to move away from communities, undermining cider's contribution to the social fabric of rural areas.	credentials as a 'natural' drink could also be exploited in a health-obsessed society.
In a moralistic, religious and relatively uncoordinated society, the perception of alcohol as a dangerous drug does not bode well for cider sales. The risk is that the many benefits of cider as a sustainable drink are undermined by the generally negative perceptions of alcohol.	Thriving farmers markets are positive for the cider industry, where the provenance of the product, its sustainability credentials, and connection to the local community could be important to sales if further developed.
A relatively unpredictable and uncoordinated government – which responds rather than plans - makes strategic planning difficult. If power moves further into regional areas there may be differing strengths and weaknesses – national cider-makers must take this into account.	The strength of the local community provides opportunities for investment and development. A localised approach could make it more feasible to be involved with positive sustainability impacts in communities such as energy generation and waste management.

3.1.2 Scenario two: Mature and Mediterranean



Key words
Global connectivity, global citizenship, charity, holistic, leisured, luxury, consolidation, spin

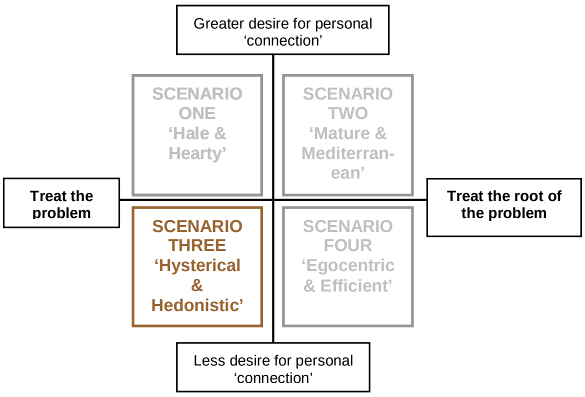
Summary

- In this world there is a greater desire for personal connection [to the land, to communities, to each other] but awareness of the benefits of 'global connectivity' [i.e. global citizenship, humanitarian efforts, big charity giving, twinning with communities in developing countries etc.].
- Policy takes a holistic approach and treats the root of the problem – alcohol abuse is seen as a symptom of wider societal issues.
- There has been industry consolidation but with local product branding where customers demand it.
- There has been an increase in local wine production, which is increasingly coming to define several rural communities.
- Innovation in product labelling means that customers have endless information on products at their fingertips.
- People are increasingly aware of (and wary of) PR 'spin'.

Risks and opportunities for scenario two

Risks	**Opportunities**
Although the scenario seems to offer near-ideal conditions for the cider industry, these conditions will also benefit cider's competitors, not least wine. A substantial drift towards wine consumption may leave little room for cider as a drink of British/regional provenance.	A big market opportunity lies in the growth potential of premium brands. For cider named varieties (single and blends) could sell well with responsible marketing. White cider may not survive, further severing connections of cider with a teenage 'right of passage' image.
The cider industry may experience considerable cost pressures, again linked to limited availability of land for orchards (due to the gentrification of countryside, and food/fuel pressures). Potential shortages of water and a lack of skilled labour could also squeeze costs.	There is an opportunity to exploit both the sustainability and health credentials of cider to generate a favourable government legislative approach.
If there is a concentration of production and inputs at a local level, then there is no spread of risk if, for example, flooding wipes out whole orchards. Localised production may also sometimes be difficult to marry with understanding that actually big is more beautiful when it comes to efficiency	There may be investment opportunities in technological developments on a small scale to provide advantages for locally based cider makers, for example to increase efficiencies in small batch runs.

3.1.3 Scenario 3: Hysterical and hedonistic



Key words

Reactive, instant gratification, centralised, safety net, consumerist, fast response, efficient

Summary

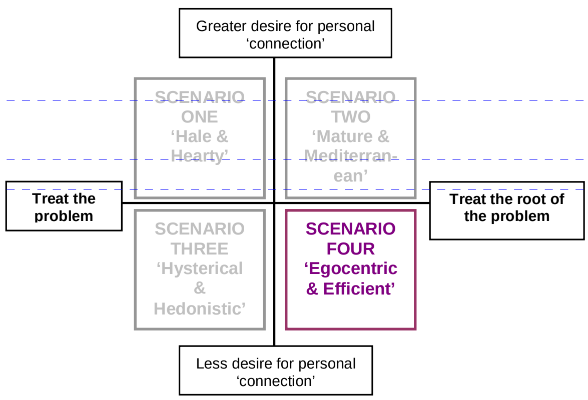
- It's a 'treat the problem' world, where alcohol is seen as a major problem, perceived as a harmful drug, although one which is ok to use in moderation
- Media hysteria around alcohol is high, and legislation restrictive
- In some policy areas the 'end of pipe'/treat the problem philosophy is quite effective
- There is a limited desire for personal connection with products, consumables and communities
- Consumerism is a dominant force over sustainability
- The sustainable development agenda focuses on climate change and big adaptation projects

Risks and opportunities in scenario three

Risks	Opportunities
UK cider is only 'just good enough', and does not have strong selling points. Its integrity as a drink is undermined by imports that do not conform to the same manufacturing standards, and dilute its heritage as a British drink of choice.	An opportunity to sell cider products with lower alcohol by volume (or no alcohol) could give a relatively high margin. Cider could be positioned as part of the solution to the alcohol crisis. Enhanced products, such as with engineered health benefits, could help push this approach.
Increased regulation from a restrictive government paves the way for local bans, by-laws and even alcohol-free communities. Cider may be particularly	Careful marketing of the 'full story' of cider could help differentiate it from the alcohol sector as a whole. Messages around flavour,

hard-hit if campaigns fail to prevent it being the 'binge' drinks of choice.	and its premium nature could be included. To capitalise on this opportunity, responsible cider drinking would have to be marketed so that it is perceived as aspirational. Cider could be positioned, not as a stand-alone alcoholic drink, but as part of a more rounded leisure experience. Partnering outside of the traditional industry, for example, with the a sector of the entertainment, may help enforce the message that bingeing is not the main point of cider-drinking
Pressure on land may be problematical, coming from both population expansion and the food vs. fuel debate. As they are not seen as being crucial to the British rural economy, and sustainability more broadly is low on the agenda, in extreme cases destruction of orchards may occur.	The strongest opportunities may eventually lie in reconsidering what products the apple industry can output. Possibilities could include vinegar, fuel, fruit wines, health products, burial grounds etc.

3.1.4 Scenario 4: Egocentric and Efficient



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Key words

Social division, laissez-faire, climate focused, selfish – 'me first', organised, carbon rationing

Summary

- The focus of this world is on energy efficiency to help prevent worsening climate change.
- There is less desire for 'connection' - in general people have come to the conclusion that, in terms of energy efficiency, local is not always best.
- Policy treats the root of the problem but has been less successful for alcohol harm reduction. This is largely down to the lack of 'connection' and the focus on climate change, which means less action has been taken to help solve underlying social problems.
- There is increasing social division between rich and poor and a 'me first' culture has evolved – people are always looking for a good deal.
- Carbon rationing has been introduced so people are looking for energy efficient/low carbon as well as cheap products.
- There has been lots of industry consolidation and just enough industry effort on responsible drinking for government regulation to be light touch.

Risks and opportunities in scenario four

Risks	**Opportunities**
Supermarket domination could mean that their power hinders sustainable development, for example with stipulations on packaging.	Cider could be promoted as the true and original 'British' drink.
Some alcohol sectors could take the opportunity of a light touch government to sell cheaply. This could potentially undermine the efforts of the industry as a whole.	The emphasis on the low carbon aspects of sustainability could be an opportunity for the cider industry, if it can communicate how it is taking the lead in this area.
If large-scale consolidation in the cider industry occurred, small-scale operators could be squeezed out: this would damage the diversity message of the industry and could decrease its resilience.	The health benefits of cider could make its consumption part of the healthy lifestyle that people pursue in this scenario. Low alcohol options would reinforce this message.

3.2 Vision

The vision for 2022 is a reflection of the requirements and aspirations of the cider industry as a whole. It has been tested against each of the four scenarios, and therefore should be robust in any of the circumstances outlined in those scenarios.

3.2.1 A vision for a sustainable UK cider industry in 2022: Summary

We believe that a successful cider industry is a sustainable cider industry.

A wide range of ciders is enjoyed by many in a responsible way. The cider industry is diverse and dynamic, and is a thriving part of local and national cultural life. The cider industry is economically successful, innovative and open, and its members speak together with a strong, clear and credible voice. The industry is committed to continuous improvement in sustainability standards throughout the value chain and supports its members by sharing best practice. It is carbon positive and waste-minimising, managing water proactively and supporting biodiversity wherever it operates. As such, the cider industry is celebrated as a leader in sustainable development, and its leadership extends beyond its members to the alcohol sector as a whole, and beyond.

3.2.2 Full vision

SOCIAL

Voice

- The cider industry proactively exerts influence over relevant policy at a UK, EU and global level
- The cider industry is a leading voice in the debate around responsible consumption of alcohol, and is recognised as such
- The industry is successful in communicating as well as implementing its sustainability initiatives
- Sharing of best practice within the cider industry keeps knowledge ‘ahead of the game’

Perception and use of cider

- Cider is a ‘first choice’ drink
- Cider appeals to a wide variety of consumer segments
- Cider is strongly associated with its heritage as a product, and its link to the land. There is a sense of pride in its provenance

Pricing

- Pricing is appropriate to responsible drinking. The cider category is strong enough so that it does not need to be boosted by pricing promotions.

Transparency

- The cider industry is open and frank in communicating its sustainability performance to all stakeholders

- Consumers are enabled to make informed choices about ciders

Tradition

- A range of traditional methods of production are thriving; both the inherent value of these practices and the opportunities they afford are recognised

- Demand for cider apples is satisfied sustainably, supporting the UK rural economy as a priority and reinforcing cider's standing as a traditional and authentic drink

Ethics

- The cider industry applies rigorous ethical standards in its dealings with stakeholders, ensuring that:
    - treatment of employees and suppliers is fair
    - behaviour involving communities in which it operates is responsible

Health

- The cider industry encourages research into health aspects of cider and appropriate dissemination of results

- The industry seeks to understand how cider can be as healthy as possible

ECONOMIC

Long term success & resilience

- Cider is the most economically successful alcoholic drink

- The industry delivers and can demonstrate economic value in balance with social and environmental value (achieves a high value triple bottom line). As a result the cider industry is well known for its sustainable approach and is a secure and profitable long-term investment option

- The industry is diverse, and there are a wide variety of ciders on sale in the on and off trade; it therefore has a high level of resilience

- The cider industry makes an important contribution to the local economies where it operates, and to the wider economy

Relationship with suppliers

- The cider industry only sources from orchards, and other suppliers, who operate sustainably

- Suppliers are supported over the long term
    - Suppliers are encouraged to increase the quality and sustainability of their supply

- The industry maintains a fair and secure financial deal for suppliers

- The industry understands and works within responsible/sustainable sourcing guidelines - particularly with respect to any supplies from less developed countries - covering labour standards, health and safety, environmental management and business integrity

Innovation

- There is consistent investment in technology and innovation to increase the sustainability of the production, distribution, consumption and waste processes of the industry. The industry shares best practice in all of these areas

ENVIRONMENTAL

Overall impact

- The cider industry is (and is seen to be) the leader in environmental sustainability in the agriculture, food and drink sectors

- The cider industry is transparent about its environmental achievements and challenges

Greenhouse gas emissions

- The cider industry is carbon positive i.e. restorative[*]

- All other greenhouse gas emissions, for example nitrous oxides, are minimised

Waste

- Cider is a zero-waste industry, i.e. there is no net waste produced; this is applicable across all areas of the value chain, including manufacture and orchard management. In addition the industry acts to reduce waste from other sources by incorporating this waste into its processes

- Consumer packaging has been minimised, and is fully recyclable: the industry has adopted a closed-loop system

Water

- The cider industry is proactive in its management of water across all parts of the value chain and is regarded as a leader in this area

Biodiversity

- The industry is committed to protecting and enhancing biodiversity wherever it operates; as part of this the industry is instrumental in leading its suppliers and local communities

Resilience to climate change

- The industry supply chain has adapted to become resilient to the impacts of climate change.

[*] 'Carbon positive' refers to a net reduction of carbon from the atmosphere. It is becoming recognised as a term, although should not be used in isolation as an absolute as it is open to interpretation in an arena where terminology is quickly developing & evolving

4 implications

The four scenarios and vision highlight a number of important tensions for long-term planning in the cider industry. In this section Forum for the Future explores some of their implications.

4.1 Cider forever?

For the purposes of this report and the vision contained within it, the assumption has been made that the raw material for the industry (i.e. apples) will continue to be used to make cider, and not some alternative product. Although part of the purpose of a futures approach is to free up thinking, some assumptions are still necessary for the resultant industry strategies to be of use, and not simply produce inertia because of the possibilities of the unknown. In this document therefore, we have focussed on a sustainable *cider* (and perry) industry. It is worth bearing in mind however, that if scenarios radically different to the ones explored unfold, then it may be necessary to reconsider the very fabric of the industry itself. Section 5.2 includes a recommendation to review this document and the vision biennially: it is at this time that any events or indicators that might suggest the need for a fundamental reassessment of the viability of the cider industry can be discussed.

4.2 Climate change – a big unknown

Climate change is a highly significant variable, and the full extent of its impact is unknown. We know that it is happening, and is likely to be one of the most significant factors shaping both the cider industry and our world in general in the future[1]. Although the unpredictability of feedback loops makes exact forecasting difficult, we know we will get warmer, wetter winters, and hotter drier summers combined with more frequent extreme weather events. This is of course of fundamental importance to the cider industry, with a wide range of potential impacts. These include, for example, impacts on orchards and crop viability, with disruption of both crops themselves and also insect habitats, and thus the means of pollination. Consumption of cider is also affected by weather conditions, as the recent wet summer of 2007 demonstrated.

Section 5.2 recommends that the cider industry continue its work on both mitigation and adaptation.

4.3 Getting to the 'root of the problem' of irresponsible drinking

Forum for the Future's research indicates that the alcohol industry and its stakeholders currently meet the minimum requirements in terms of promoting responsible drinking, primarily via the 'Drink Aware' campaign. However, as one of the axes for our scenarios shows, getting to the root of the problem could be key to understanding and dealing with the issues around irresponsible and binge drinking, and could thus be important in determining the environment in which the cider industry finds itself trying to succeed. Given this, how much responsibility is the industry willing to take in trying to address wider social and economic issues underlying irresponsible use of alcohol? It is important that

[1] By 2022, C02 concentrations in the atmosphere will reach around 416ppm (up from 384ppm in 2006). C02 concentrations are currently at 384ppm (Sir David King, public statement, June 2006) and have been increasing at an average of 1.9ppm per year between 1995 & 2005 (IPCC WGI 4th Assessment Report). Assuming an annual increase of 2ppm per year, this will result in an additional 32ppm by 2022. In 2022 the mean temperature could be 0.3 degrees warmer than in 2007, with warming concentrated in the north (the IPPC WGI 4th Assessment Report projects a global temperature increase of about 0.2ºC per decade for the next 2 decades – irrespective of any action we take now).

the cider industry explores this complex issue, considering where and how it can demonstrate real leadership, and where it can form partnerships to ensure maximum effectiveness of its actions.

4.4 Competition vs. collaboration

The cider industry will strive to be a leader in sustainability, and communicate its successes in this field. Cooperation within the industry is both necessary and desirable to be able to fulfil the goals set out in the vision, for example improving transport coordination and sharing haulage.

However, within the industry itself, and more widely within the alcohol category as a whole, there is a need to retain the space for products to compete. It is necessary for the NACM to identify these tensions between collaboration and competition clearly, and set out to what extent the cider industry wishes to draw boundaries when sharing its sustainability successes. Sustainability will be an important differentiator for cider, but the goal of a more sustainable world is of course one that transcends traditional business divisions.

4.5 Big vs. small

Traditionally many champions of sustainable development have favoured a small-scale approach, sourcing goods close to their point of scale. In many respects this can be a more sustainable model: it brings a greater sense of connection with the local community (and indeed the natural world), as explored in scenarios one and two. Local sourcing can also mean fewer transport related emissions, but also an increase in their intensity per unit of product, if lots of small haulage trips occur rather than coordinated ones with more load.

Bigger systems have the advantages that come with economies of scale. Larger scale centres of production can more efficiently enable energy generation, and management of waste and water etc in the communities in which they operate. This type of large-scale efficiency is largely disregarded in scenarios one and two, but more possible in scenarios 3 and 4, where big is seen as beautiful.

For the cider industry, a ‘big is beautiful’ approach – with larger players choosing to operate at a national level - would be likely to use fewer suppliers. This is easier to regulate, but the industry is then also more vulnerable if a vital link in the supply chain is disrupted by, for example, an extreme weather event. (This same problem may however also occur if an industry segment is entirely localised.) Efficiency gains may be beneficial, but there is also less flexibility generally to respond to changing demands on industry in a rapidly evolving world.

4.6 Incomplete knowledge: need for continuous research and development

It is the case with any industry strategy (not just in sustainability terms) that it must be based on the best available knowledge at the time of writing. The cider industry is no exception, and because of this there is no definitive industry position stated in the vision on issues such as organic farming, genetically modified crops and artificial ingredients. The question of what constitutes a ‘sustainable orchard’ is also one that requires further investigation.

The vision states the industry will strive for continuous improvement in sustainability. Therefore, as stated in the recommendations, the best means to achieve this improvement must be reassessed on at least a biennial basis in the light of the latest available information.

4.7 Labelling and information

Currently there are no ingredients listed on the packaging of cider, nor any indication of the environmental impacts of the drink's production. If the industry is to fulfil its goal of being transparent, then some form of communication to consumers of the contents and impacts of their drink must be part of this. However, it is a matter for debate whether labelling is the best method of achieving this. Any such communication must include an element of education which is difficult to include in the limited space of a label.

One aspect of this is the inclusion of artificial ingredients in cider. Are they on balance, more sustainable than, for example, sourcing sugar from abroad? And if so, can this be explained to consumers who are looking to cider to be a natural, sustainable drink choice?

4.8 A healthy sort of alcohol?

Part of the 'social' section of the vision refers to encouraging the dissemination of the results of research into the health aspects of cider. The tension here relates to some extent to the above point. At present there is conflicting advice as to the benefits (or lack thereof) of alcohol. Can it therefore be a sustainable strategy to promote any health benefits from drinking cider? However if the industry must wait until a complete and total knowledge of the long-term effects (both positive and negative) of drinking cider are attained, it would surely be waiting ad infinitum. As per the vision therefore, the cider industry should encourage research into the health aspects of cider and the appropriate dissemination of results. The industry should also seek to understand how cider can be as healthy as possible, for example with respect to the most sustainable type of sweetening ingredient.

4.9 The sustainability debate: one of reduction?

How will the cider industry respond if the sustainability agenda becomes a 'reduce consumption' debate?

Currently, the opportunity to buy 'green' products is key, and one of the main ways of engaging the (light) green consumer. However, at present the mainstream sustainability drive largely does not extend to demand management, where overall consumption is reduced to decrease total material impact. The key challenge of the future will be to get as much or more commercial value out of less material resource. The cider industry has the potential to adapt to this context, and indeed grasp the opportunities presented by it: for example through lower consumption of higher quality cider: a trading up scenario.

Another opportunity is identified in scenario three, of the industry branching into (or partnering with) the entertainment/leisure industry, begins to suggest one way in which the product to service shift, at first glance of limited viability for an alcohol sector, might be successful in helping to reduce overall consumption.

5 recommendations

5.1 How to use the strategic tools

The scenarios and vision are strategic tools for the NACM to take forward and use – at an industry level and for its members to apply in their individual organisations.

5.2 Industry wide/ NACM

Action plan

Forum for the Future recommends that the NACM:

- Moves quickly to develop an action plan to deliver the vision:
    - Takes each of the long-term vision goals and where applicable sets objectives, targets and measures for the short, medium and long term.
    - Prioritises key areas and plans out immediate next steps – who, what, where and by when.
    - Identify areas where the NACM wants to take leadership – and clarify what that looks like.
    - Identifies any barriers or gaps to delivering the vision. Are there any information gaps? If so, how can they be filled, by when and who is going to do it? Are there any other barriers and how can they be overcome? How will it be resourced?
    - Clarifies how the issue of industry boundaries will be addressed – for example, if the cider industry aims to be zero-waste, what does this include? Where does the measurement of this - and other sustainability indicators - begin and end?
- Integrates the findings from other projects currently underway into the action plan e.g. Carbon Trust project.
- Carries out further research in specific areas. Some areas were identified for further research during the workshop discussion. These include:
    - What is a sustainable orchard?
    - How will the industry need to adapt to climate change – e.g. growing more robust apple crops?
    - What strategy is needed to ensure that cider is enjoyed across a range of sectors?
    - What are the boundaries for being zero carbon/carbon restorative? Transparency is needed around what is included in the calculations – where is the NACM drawing the line in the supply chain?
    - What does leadership really mean – decide what the industry wants to be leading on and prioritise areas for action (began to do this in the workshop).

Integration

We recommend that the NACM:

- Requires that, as a condition of membership, all new and existing members sign up to the vision for 2022. This will send a strong message to members, and others, that sustainability is at the core of the NACM.
- Reviews its members' implementation of their action plans after two years to ascertain whether they are demonstrating commitment to the long-term vision. It is worth emphasising that the vision is for 2022, and members are not expected to have achieved all the aims set out in the vision with two years – it is a long-term journey. However, it is necessary to implement changes in the short term as well, as part of the transition to becoming a sustainable industry by this date.
- Supports members to make the transition by:
    - Communicating / educating members on the need for a sustainable cider industry – and the opportunities that lie ahead.
    - Making recommendations about how to formulate company-specific action plans based on the vision, to ensure that members have a clear idea of the first steps they can take on the journey towards achieving the long-term vision.
    - Sharing best practice – this might require some further exploration – everyone agrees that this is an important thing for the NACM to be doing. But what is the best way to do it? Are existing channels enough? Can more be done?
    - Supporting and encouraging continuous improvement (e.g. does the NACM have an awards scheme? Could there be an annual prize for sustainability activities/improvements amongst members?)
- Reviews the vision biennially (as a minimum) with stakeholders to ensure that it remains relevant and stretching. This will also provide an opportunity to review progress, celebrate success and prioritise areas for action.

Consultation and Communication

We recommend that the NACM:

- Develops a comprehensive consultation and communication plan covering a variety of stakeholders including members and potential members, the wider alcohol industry (UK and international), government (national and EU), consumers, suppliers etc.
- Launches the vision and scenarios quickly to make the most of the leadership potential.
- Brings the scenarios alive using illustration, role-play and/or characterisation.
- Makes bold statements … with an element of humility e.g. 'this is part of a journey towards sustainability, the industry doesn't yet have all the answers but is aiming for x,y,z and will do a,b,c to try to get there'.

Supply chain

We recommend that the NACM:

- Gives particular attention to reducing impacts across the whole cider life cycle, from raw materials (i.e. not just apples, but where applicable apple juice, sweeteners etc.) and manufacture through to pint glass and disposal.

- Maps the whole cider life cycle and its supply chain, identifying the sustainability impacts at each stage and ways to reduce them.
- Checks that each of the key impacts is included in the vision and action plan.
- Identifies boundaries, for example where the NACM (or its members) take direct responsibility for improving sustainability performance and where it can support others to do so.
- Encourages its members to work with their suppliers to improve sustainability performance – providing incentives for good performance, sustainable procurement policies, a timeline and support towards compliance etc.
- Explores the 'big vs. small' issue for the cider industry, teasing out how sustainability gains and losses may be played out in each case.

Investment and collaboration

We recommend that the NACM:

- Considers the R&D investment and resources needed to achieve the vision.[2]
- Explores areas for collaboration – on strategic issues that are too big to deal with alone.

5.3 Individual organisations / NACM member organisations

The vision and scenarios can be used by individual organisations in their own strategic planning processes. We recommend the following:

Scenarios

- Explore the risks and opportunities for your individual organisation presented by each scenario and how can the risks be managed and the opportunities taken? What are the opportunities for you?
- Test your own strategy with the different scenarios. How successful would your current strategy be in each scenario? Can you conduct a strengths, weaknesses, opportunities and threats (SWOT) analysis of your strategy for each scenario? How might you need to adapt your strategy to make it more robust in 2022?
- Can you do the same with your policies and product ideas?
- Discuss what products/services might be successful in each scenario. How might they be developed? Can you draw a roadmap for the product idea that works for all four scenarios?
- Explore what key events might have lead to the emergence of each scenario? Which events can you influence and how? Which scenario is favourable and why?

Vision

- Think about how and where your organisation could contribute to the vision and action plan that has been developed. What are the actions for your organisation as a whole, different departments, and individuals? Set objectives and test these against the four scenarios.
- Explore where you want to take leadership as an organisation.
- Identify the key opportunities for your organisation within the vision. Identify any challenges for your organisation in delivering the vision – e.g. any knowledge, resources, investment needed.

[2] Some organisations have made public commitments on sustainability investments such as M&S's Plan A commitments, and the GE Ecomagination fund.

- Identify which of your policies and practices need to be amended to include sustainability criteria – e.g. sustainable procurement.
- Nominate a person responsible for ensuring your organisation takes the vision forward in a way that makes sense for your individual business but that also meets the objectives of the NACM.

6 appendices

6.1 Appendix one: Workshop process

Two day-long workshops were conducted in December to explore and refine the scenarios and vision. The process in the workshops was as follows:

DAY ONE

1. WHAT CIDER MEANS TO YOU
Each participant provided one word they associate with cider
[See Appendix 1]

2. SCENARIO IMMERSION
In groups, participants considered what it would be like to live in one of the scenarios in 2022, and collated their personal and professional likes and dislikes. General feedback on the scenarios was gathered, as well as any suggested additions.

3. RISKS AND OPPORTUNITIES
Participants discussed the top three risks and opportunities for the cider industry if it were operating in their given scenario
[See tables in section 3.2]

4. VISION DEVELOPMENT
The draft vision was discussed and additional inputs suggested.

DAY 2

1. FUTURISING EXERCISE
Participants looked back 15 years, listing what has changed during that time.
[See Appendix 2]

2. VISION DEFINITION
Participants described the type of vision they desired for the cider industry.
[See Appendix 3]

3. VISION REFINEMENT Discussion was first in groups and then in a plenary session. The details of the vision were agreed upon.

4. VISION TESTING The vision was tested for robustness against the risks and opportunities previously identified via the scenarios, and amendments made accordingly.

6.2 Appendix two: what word do you associate with cider?

Participants on day one were asked what one word they associate with cider

Brewing
Maggots
Alcohol
Apples
Tradition
Sustainability
Socialisation
Transition
Flavour
Growing
Scrumpy
Close-knit
Pears
Aroma
Sunday lunch
Politics
Variety
Orchards
Passion
Maggots
Enjoyment
Heritage

6.3 Appendix three: change – the last 10 years and the next 10 years

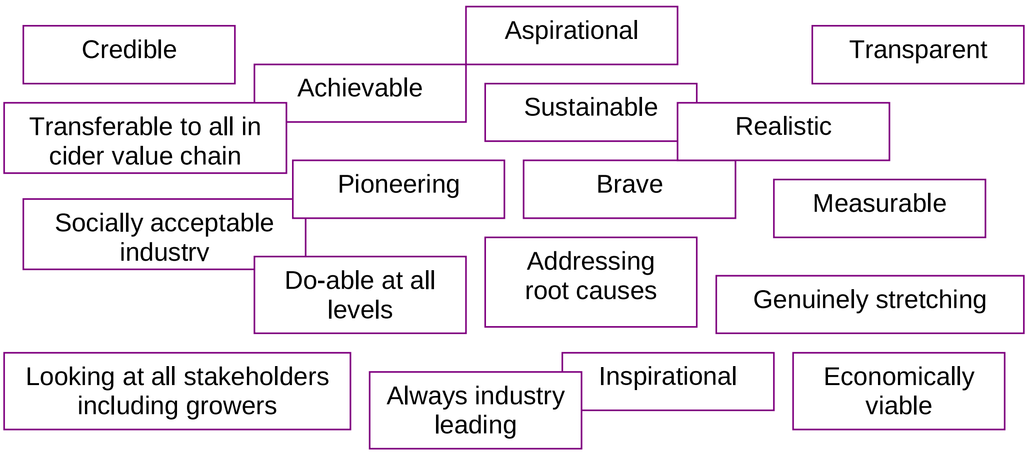
To encourage participants to think about how much change is possible over ten years they were asked what new things have been introduced over the last ten years, and what has gone?

New	Gone
Mobile phones	Woolworths
Economic stability	Concorde
Internet shopping	Yugoslavia
Entrepreneurs	Tippex
Terrorism	Communism
Fundamentalism	GM?

Powerpoint	Hunting
Budget airlines	Tigers/Orang-utans/other endangered species
Cloning	CFCs
GM	Smoking in pubs
Economic growth of India and China	Northern Rock
Gay marriage	
Safaris have become accessible to all	
Increased government intervention and surveillance	

6.4 Appendix four: vision aspirations

Participants on day 2 were asked what they wanted from a vision for a sustainable cider industry:



6.5 Appendix five: factors

A shortlist of factors were identified as being important to the cider industry over the next 15 years; these are outlined in the table below:

Key:

Wider world
Consumption based
Alcohol specific
Cider specific

FACTOR	NOTES/FACTS/RELEVANCE TO CIDER	SOURCES*
Population change	The UK population is predicted to be 62.5 million by 2020. In the UK th is largely as a result of immigration. Such an increase has significa implications for pressure on resources	http://esa.un.org/unpp/
Disposable income	Rising personal debt (in conjunction with higher dependency ratios) in the UK lead to a reduction in disposable income especially in middle classes. The average owed by every UK adult is approximately £26,313 (including mortgages). Britain's personal debt is increasing by ~ £1 million every four minutes. By contrast Baby-boomers spend more as they enter retirement	Retail Futures- www.forumforthefuture.org.uk/node/879
Ageing society	The number of dependents per 100 working is increasing in the UK	http://esa.un.org/unpp/
Localism	Local sourcing hubs are one mechanism enabling small local producers to sell much closer to their point of origin. Will the demand for local produce at farmers markets continue? Companies may need to be 'internationally local'. Local food as staple rather than specialist food in 15 years time - make gourmet from what is available. Is small beautiful in terms of sustainability?	Richard Heathcote, Gillian Williams; Tara Garnett
Prosperity of rural areas	What will be the fate for rural areas if low prices for agricultural commodities and imports continue? The perception of cider as key to health of rural economies is key.	Cider Matters 2006; Fenella Tyler
Investor awareness of sustainability	Will sustainability be a key criterion when people look to long-term investment options?	Green Futures, May 01, 'In the black, red - or green?'; Richard Heathcote, Fenella Tyler
Level of engagement on sustainable development across society	Is the environment high on people's priority list? Economic situation is likely to be influencing this. Will the sustainable consumption debate be about 'buy green' or 'buy less'? Need for genuine integration of sustainable development into the education system.	Retail Futures; Jane Walton; Henry Chevallier; Tara Garnett
Trust in large companies	Continued consolidation is likely to make this worse. Will it disintegrate completely? People likely to react against large companies, look for trust/quality/provenance (brands represent this) on a local scale.	Retail Futures; Richard Heathcote
Role of business in society	Society is beginning to expect more from business relative to government. Businesses are becoming more externally focussed, with an increasing role as communicators of society's response to itself. Large retailers have a responsibility to really drive sustainability forward, and make it accessible to all.	Richard Heathcote, Helen Rushton; http://www.tesco.com/climatechange/speech.asp
Land use	Pressure likely to come from house building targets, food security, biofuels, pressure on meat/dairy industries. The productivity level of farmland will be important (maximal sustainable biomass harvesting)	http://environment.guardian.co.uk/food/story/0,,2059591,00.html
Automation/technological innovation	There is a huge predicted increase in automation, theoretically leading to less bureaucracy in payments/operations. How much could automated machinery play a role in the cider-making process - as far as robots in orchards??	Retail Futures, http://www.freshplaza.com/news_detail.asp?id=10153
Demand for renewable energy	To date, there have been problems with having enough places and space to implement renewable energy strategies & a lack of clear government guidance. In line with EU commission targets, Britain must get 15% of its energy for heat, electricity and transport from renewables such as wind, wave, tidal, solar and biomass by 2020.	http://www.guardian.co.uk/renewable/Story/0,,1824720,00.html as an example; http://www.guardian.co.uk/environment/2008/jan/23/climatechange.eu1; Fenella Tyler

* Full details of key sources are listed in section 6.5

Transport logistics	There is much potential for measures such as greater capacity / two-trailer vehicles and out of hours delivery to decrease congestion (there are currently legal restrictions - these could be revised). Other reductions could come from altered engine specifications; vehicle telematics etc (perceived costs of this are sometimes high). RFID tags etc. could be used to create more efficient delivery systems. Collaboration between retailers e.g. around distribution (there is a body looking at this involving all the retailers) could be significant. Carbon Methodology, pilot in Bristol looking at consolidation centre for delivery to all high street shops	Details of potential reductions from each measure (calculated for the food industry): 'Report of the Food Industry Sustainability Strategy Champions' Group on Food Transport, May 2007
Cost of transport	Likely to increase? Transfer of goods from road to rail is often difficult with current infrastructure. Some current measures in industry to e.g. bringing in raw materials such as glucose - likely to expand	Green Futures, Nov 06, 'The future is another country'; Richard Heathcote; Henry Chevallier; Tara Garnett
Energy costs	The UK is set to become much more reliant on imported fuels. For example, by 2020 the UK will only be able to meet around 10% of its gas demand from domestic sources compared to over 90% today. Increased fuel costs could be passed onto customer and so mean cider becomes more expensive.	http://www.cabinetoffice.gov.uk/strategy/downloads/work_areas/policy_review/policy_review.pdf
Water availability	By 2025 several countries in Europe will be facing water stress. Major impact on farming and other industries. If climate changes to such an extent that it becomes necessary to irrigate orchards, is that the sort of world in which water will be needed for other priorities?	http://www.unep.org/vitalwater/21.htm#21b;http://maps.grida.no/go/graphic/freshwater_withdrawal_in_agriculture_industry_and_domestic_use; http://www.gsg.org/gsgdata/scen_data_selector.cgi; Richard Heathcote
Climate change & severe weather events	Climate change likely to cause rising sea levels and temperatures. Frequency of severe weather events likely to increase, difficult to predict because of positive feedback loops. Affect on crops - e.g. floods wipe out insect habitat affecting pollination	Stern Review Report on the Economics of Climate Change; IPCC WGI 4th Assessment Report; Gillian Williams
Mitigation of climate change	Heavy emphasis on this currently. Climate change bill targets are 60% reduction on 1990 levels by 2050 with an interim target of a 26% to 32% reduction by 2020. Many initiatives already within cider/alcohol industries (e.g. S&N using spent grains from the beer-brewing process as fuel on one of its cider sites - steam energy emissions by ~40% (implemented over 1-3 years)) but need more delineation and measurement.	Cider Matters 06; http://www.guardian.co.uk/environment/2007/oct/29/climatechange.greenpolitics; The alcohol we drink and its contribution to the UK's greenhouse gas emissions: a discussion paper - Tara Garnett
Adaptation to climate change	Pressure for cider-making to move further north?? Necessary to consider what types of orchards to be planting now bearing in mind the effect of climate change in 50 years - what type of orchards will we want?	Cider Matters 06; Helen Rushton; Helen Thomas
Obesity	Currently breeding a generation of 15-16yr olds who will die before their parents; will cause substantial pressure on the health service in future decades. Will we have less trouble as people are forced/want to walk/cycle more? Latest research shows heavy drinking is associated with binge eating.	Govt Foresight Dept report 'Tackling Obesities: Future Choices' (Oct 2007) Quarterly Review of Alcohol Research Summer 07vol15no2; Richard Heathcote
Power of the media	Has significant influence on consumers over food scares etc. e.g. sudan 1. Has the potential to be hugely influential with regard to binge drinking and sustainability issues in general - how will they be reported? Will it skew the scale of the problem?	http://www.sirc.org/publik/binge_drinking.shtml; Retail Futures; Helen Rushton
Social cohesion	What is the relationship of role of alcohol to this? Is society becoming more individualistic and disconnected?	Richard Heathcote
Social divide and the poverty gap	The very poorest have not shared in recent growth. Could the UK end up with a sustainable development underclass?	JM meaning of 21st Century. http://www.cabinetoffice.gov.uk/strategy/downloads/work_areas/policy_review/policy_review.pdf

Health agenda	Spiralling costs of healthcare due to western lifestyle diseases leads to preventative medical culture. Massive push on diet etc. Potential health benefits of cider - researchers at university of Glasgow investigating. English cider apples have high levels of phenolics/antioxidants - linked to protection against strokes, heart disease and cancer. Research reviewing 34 studies at Uni of Milan - *low* levels of consumption have a beneficial effect in terms of mortality in both males and females (lower for latter). Health concerns could lead to calls for pasteurisation (like in the US) - which could wipe out cider. Recently a "high-tech SOD apple" has been successfully presented in the SanYuan region of China. "SOD" = abbreviation for "Superoxidedismutase", an enzyme to enhance human immunology and to transform free radicals to harmless water-molecules and oxygen molecules.	www.cideruk.com; Gillian Williams; Jane Walton; Tara Garnett; http://www.freshplaza.com/news_detail.asp?id=11125
Waste	Consumer pressure, regulation, and innovation will all affect this. Attitudes to (and legislation on?) glass waste from alcohol packaging may change. (May be prompted by social harm factor - risk of injury)	Jack Law; Helen Thomas.
Demand for organic/natural	Increasing demand for organic. Many orchards reducing/discarding pesticides. Growth of popularity in real cider and perry.	Cider, Market Intelligence, 2006. Mintel International Ltd.; Cider Matters 06, Gillian Williams; Jane Walton; Henry Chevallier; Tara Garnett
Demand for information / labelling	Green labelling of food to show the impact of its production on the environment could lead to major changes in consumption. Lucy Neville-Rolfe Tesco has said "It is a trend that might be bigger than all the rest,"	http://www.planetark.com/dailynewsstory.cfm/newsid/41117/story.htm; Bill Wiggin
Demand for authenticity	Growth of popularity in real cider and perry brands. Also linked to tourism - could lead to demand for cider making holidays? Increased consumer education on (British/rural) authenticity of cider as a drink choice needed.	Retail Futures; Gillian Williams; Jane Walton; Fenella Tyler
Importance of brand	In the future will a brand stand for a region? Provenance could be of top importance, informing about the quality/associations of products? Need to leverage power of brand in positive messages re responsible drinking.	Retail Futures; Richard Heathcote; Helen Rushton
Channels to market	What will be the mix for online, supermarkets, independent outlets, peer-to-peer retail, pubs/on-trade etc.?	Retail Futures; Bill Wiggin
Responsible pricing in retail	Ability of industry to work with retailers to reduce irresponsible pricing will be important; deep discounting e.g. bogof adds to negative public perception of cider and increases alcohol harm. Could previously buy a week's worth of alcohol units in cider for £1.79. Also offers such as bogof leads to entrenchment meaning people are less likely to try something new.	Jack Law; Gillian Williams; Helen Rushton; Henry Chevallier
Packaging	What advances might there be in smart packaging? Of the current options for cider canned is generally less GHG- intensive than bottled. But the increased preference for drinking bottled/canned instead of draft means more packaging overall. Real cider uses polycasts that sit on the bar and are fully recyclable. There's currently different packaging for home (tends to be plastic) and pub. Future may see more shatterproof glass packaging to reduce incidence of glass injuries.	The alcohol we drink and its contribution to the UK's greenhouse gas emissions: a discussion paper - Tara Garnett; Jack Law, Gillian Williams
Consumer demand for wide range/premium	Cider well placed to offer this but still has tinge of a cheap, underage drink. Could push similarities of cider and wine to trade on subtleties of taste etc.	Cider Matters 06; Cider, Market Intelligence, October 2006. Mintel International Group Ltd.; Helen Thomas; Jane Walton
Traditional methods	Will need heritage funding to protect traditional methods like straw pressing	Gillian Williams
UK government approach to alcohol	Will alcohol be heavily regulated against or will government intervention focus on the underlying factors responsible for alcohol abuse? Important variables will include its approach to licensing laws, alcohol harm reduction policies, behaviour legislation and advertising regulation	Fenella Tyler; Richard Heathcote; Tara Garnett
Perception of other alcohol categories	Will cider be competing with beer, wine, or other alcohol for the same space? What alcohol will be 'fashionable'?	Jack Law; Jane Walton; Bill Wiggin; Helen Thomas

Social perception of alcohol	What role will the media play here? Will it push alcohol as a demon or as a symptom of society's problems? The level of religion in society is increasing, which could have implications for the perception of alcohol. Swings in cultural attitudes difficult to predict but can be crucial	http://www.sirc.org/publik/binge_drinking.shtml; Bill Wiggin
Public debate on alcohol harm	Where does the blame lie? What next for collective action from the industry? Success so far of multi stakeholder initiatives on alcohol harm reduction -e.g. Drink aware alliance - involves industry, NGOs and health. Will the future bring more positive collaboration (not just avoiding further regulation)? Need lots of public education.	Helen Rushton; Jack Law; Henry Chevallier; Fenella Tyler
Alcohol consumption patterns	Bingeing, responsibility, overall level	Tara Garnett
Duty differential	Will the duty differential for cider be retained?	Submission by the (NACM) on UK Cider & Perry Excise Duty for the 2007 UK Budget; Fenella Tyler; Bill Wiggin; Helen Thomas
Diversity of sector	Relevant to stability and resilience of the industry, and diversity of product	Henry Chevallier; Bill Wiggin
Biodiversity	This is applicable at a number of applies - the varieties of apples used, the rootstocks, and the overall make up of orchards and the land used for them.	Henry Chevallier; Tara Garnett
EU policy	What will be direction of Common Agricultural Policy, including Single Farm Payment scheme. Will regulations remain the same in terms of defining what cider is and how it is made?	Nick Bradstock; Bill Wiggin; Tara Garnett; Helen Thomas
Perception of cider	Will cider be able to shake its association as a 'right of passage' in teenage years? Becoming increasingly socially acceptable/fashionable	Richard Heathcote; Henry Chevallier; Bill Wiggin; Tara Garnett; Helen Thomas

6.6 Appendix six: the full scenarios

6.6.1 SCENARIO ONE IN FULL - 'Hale and Hearty'

Wider World

Socio-economic context

Local cohesion is relatively stronger than in 2007 and the sense of national identity has declined. Government is still relatively centralised, but perceived as short-termist in its policies and ultimately of limited benefit at community level, whereas in some places there is a strong grass roots ethic.

The UK is more devolved, with power for Scotland, Wales and Northern Ireland residing in those countries. There is a strong revival of the regional agenda, but despite some regional areas calling for devolution, the balance between local and central government in the UK remains much the same as it was in 2007. As a result, there's a tension here between centralised institutions and a localist outlook.

It's a more religious world, and public values are increasingly dominated by this

Sustainability agenda

There is a high desire for connection to - and to know the provenance of - consumer goods, and the 'local is best' attitude dominates. It is a fairly 'kneejerk' society, and can miss the hidden connections, the global ones, i.e. more complex issues that may mean that local and diverse is not always best.

Consumers tend to 'buy green' – simply buying less is not a prominent aspect of sustainability in the mainstream.

Investors may be attracted to sustainable initiatives because of the commercial opportunity but not usually because of an inherent concern for the long- term.

Waste is still a significant issue; councils are taxed for the amount of landfill they send. Such taxing is a big source of revenue.

Response to climate change

The government is focussed strongly on adaptational responses (national response to severe weather events). Local communities have undertaken many measures of their own to increase the resilience of their livelihoods.

Mitigation initiatives originate almost entirely at a local level; a sense of frustration with government on this issue has provided the impetus for many self-styled carbon neutral towns and villages. Locally generated renewable energy is a large part of this – biomass is particularly big. Going 'off-grid' is emerging as a powerful social movement, but the energy issue is increasingly difficult to regulate. Zero waste communities are now also starting to emerge.

Consumer preferences

Consumers are interested in buying distinctive, premium products which satisfy their individual needs, and disposable income is at a level where people are happy to spend. Local brands are selling well.

Retail channels

Retail channels are diverse, and supermarkets in their traditional form are now somewhat derided as faceless entities. Farmers markets are still thriving, and some larger retailers act as a forum for such community-based and peer-to-peer selling (i.e. big retailers have had to adapt to survive).

Health agenda

People take a large degree of personal responsibility for their health. This is partly due to seeing the difficulties experienced by the obesity cohort and the lack of resources to deal with its problems.

There's been a boom in alternative therapies, and so-called 'quackery', which is difficult to regulate. This is borne largely out of a desire to provide own one's own solutions to problems, with the need for 'connection' influencing the type of therapies chosen. There's also been a revival in cottage hospitals.

Rural economies

Rural economies are generally more prosperous than in 2007, and are benefitting form the demand for local produce. Stewardship grants are still given (to ensure basic biodiversity compliance and to keep the countryside looking like it 'should'). There are also substantial payments for adaptational uses, e.g. flood plain land.

There is substantial pressure on land use, with the population of rural areas growing, and the countryside looking like an attractive prospect for ever-more people.

Alcohol specific

Perception of alcohol

There is a much greater awareness of both the long and short-term physiological effects of (excessive) alcohol consumption (due in part to the campaign described below). Alcohol is seen as a dangerous drug, but one that can be used in moderation. Drinking to get drunk, although by no means unheard of, is viewed with the same kind of scepticism as drink driving.

The media has played an important role, pushing health messages responsibly.

Big retail chains no longer have a compelling price advantage for alcohol, as BOGOF and other similar promotions are seen as irresponsible and harmful for their reputation.

This is a more 'puritan' society, and there is a stronger voice from Islam and Christianity in public debate.

Campaigns and legislation

Government funded alcohol awareness campaigns have enjoyed great success, boosted by intense research (and hard-hitting research results) in the area.

Duty on all alcohol has increased, state income from which has been used to fund the large-scale public campaigns. This happened first in Scotland, the success of which encouraged England to follow suit swiftly. Alcohol advertising is banned before 9pm, and alcohol brands cannot sponsor events. 50% of advertising space must be devoted to health awareness messages, and there is compulsory unit labelling on all bottled drinks.

Campaigns and legislation have focussed on treating the 'problem' of alcohol (rather than addressing why some people may drink too much in the first place). The short and long-term health negatives of overuse of alcohol have been communicated repeatedly to students and 'copers' (middle aged/middle class who drink too much consistently).

Alcohol use

A much higher awareness of the potentially harmful consequences of alcohol misuse, and subsequently much greater personal responsibility, has been largely responsible for the overall level of consumption decreasing. Binge drinking is less conspicuous, particularly amongst students.

Alcohol is still enjoyed as an aid to leisure, but is an accompaniment rather than a focus. A greater proportion of alcohol than 15 years ago is consumed at home; many pubs and bars now focus more on the gastro and social experiences they can offer. People are concerned with sourcing interesting and distinctive alcoholic drinks to 'make the most' of their (self-regulated) alcohol quotas.

There is however a feeling among some groups that the problem of alcohol is simply being repressed and forced underground. There are a growing number of reactionist groups pushing the idea of ideological hedonism and their right to drink and be drunk

6.6.2 SCENARIO TWO IN FULL – 'Mature and Mediterranean'

Wider world

Socio-economic context

Generally there is a more localised, cohesive society than in 2007. There has been greater industry consolidation but with local branding (see below).

Government is centralised and the general perception is that government tends to be on top of the things that matter most to the majority of people.

Sustainability agenda

People are aware of the subtleties of the sustainability agenda. There is a general understanding that local is not always best, but that it makes sense to source things where the overall sustainability footprint is lowest.

The global citizen agenda and strong desire for connection means that social issues are a high priority. In addition, sustainability is viewed as an imperative for long-term business success. It is mandatory for all FTSE 500 companies to provide regular online updates on their sustainability performance, and this influences share price.

There is far greater scrutiny on production processes due to advances in labelling and the holistic approach to sustainability. As a result there is pressure to be transparent about every aspect of the supply chain. There has been some recent backlash against some unscrupulous brands exploiting the market for local drinks. There have been a few scandals where drinks are promoted as local but have been uncovered to be part of relatively unsustainable global supply chains.

Response to climate change

As policy treats the root of the problem there is an urgent focus on mitigation – i.e. cutting carbon emissions to avoid dangerous climate change. Government is driving though a raft of community measures and activities to combat climate change at a local level. Community Combined Heat and Power (CHP) is being rolled out in new build large housing developments and for large buildings (hospitals, factories, office developments etc) across the UK after several successful local government pilots in London and Bristol.

There is a lot of support for Less Developed Countries (LDCs) to keep their emissions down. For example Government has fast-tracked the transfer of technology to developing countries via cheap licensing and vice versa via collaborative research project on renewable energy innovations.

Consumer preferences

Sophisticated labelling systems have evolved and are commonplace. For example mobile phones can be pre programmed to receive the information consumers are most interested in. A mobile phone is simply waved over product bar codes to receive up to date information. A customer that is most interested in water stress, carbon and calorie content, for example, is immediately texted with the water and carbon footprint as well as number of calories in a product.

Retail channels

Supermarkets (off-trade) are still dominant but have really got to grips with the sustainability agenda and have been the key driver of global connectivity through their supply chains. Retailers have consistently met their sustainability targets set from 2007 onwards (with the likes of M&S plan A) and have capitalised and built on this success.

On-trade (pubs, bars, restaurants etc.) have been a bit behind in catching onto the sustainability agenda but there are some carbon neutral pubs popping up that are encouraging people to 'turn off their heating at home and go to the pub instead'.

Given the demand, brands are positioning themselves 'internationally local'. In addition there is heavy spending on marketing and PR to promote the sustainability credentials of brands.

Health agenda

As the focus is on the root of the problem there is an emphasis on healthy lifestyles – this is big business with lots of start-ups. There are a large number of local health support groups.

Rural economies

The rural economy is doing better than it was in 2007 and gentrifying. This is mainly due to an increasing number of affluent middle-aged people moving into the countryside and staying there into retirement. There are even greater land use pressures – particularly as more land is being dedicated to renewable technology.

The government is also considering introducing incentives for local wine production.

Alcohol specific

Perception of alcohol

Alcohol is generally seen as a fun thing that can be abused – and so needs to be treated carefully.

Generally there is a much more 'Mediterranean' attitude to alcohol i.e. a larger proportion of people with flatter demand profiles (not just bingeing on Fridays and Saturdays), more drinking with food etc.

In addition there is a far greater understanding of the social 'circle of harm' that accompanies alcohol abuse (i.e. you're not just harming yourself, but those around you as well). Therefore alcohol abuse is seen much more like drink driving and smoking have been in the past, but with an understanding that increased pricing and banning can be blunt instruments and less effective.

Drinking to get drunk is less socially acceptable. Excessive drinking is seen as a sign of lack of 'connection' and a symptom of deeper issues that require analysis and treatment.

Campaigns and legislation
Policy treats the root of the problem taking a more holistic view, using a more systems-thinking approach. Government policy focuses on the big social issues (education, unemployment) as the root of reducing excessive alcohol harm and has been successful.

Campaigns by industry such as Drink Aware have also been very successful, made easier to coordinate in a consolidated market, which has ensured limited legislative intervention from government.

Alcohol use
Overall alcohol consumption has risen. Drinks have come to represent the area in which they are made, and there is a strong desire for home-grown wines, beers and ciders, with several regional festivals to celebrate them. The local drinks industry is booming as a result.

The UK is experiencing a revolution in local wine production (climate change is making grape production more suitable to the UK climate), a phenomenon that is increasingly coming to define several rural communities. As a result wine is now associated as much more British and beneficial to the rural economy.

6.6.3 SCENARIO THREE IN FULL – ‘Hysterical and Hedonistic’

Wider world

Socio-economic context

In some policy areas the ‘end of pipe’ philosophy is quite effective, such as significant investment in hospitals. There is a hard line on tackling crime, which has been successful in reducing overall crime levels, but there is still a significant problem with drink-related crimes. It’s a ‘respond when the need arises’ sort of world, which can be seen as fire-fighting, but is also responsive and adaptive

It’s a high welfare society, where people feel there is a safety net, and therefore are less concerned with personal responsibility.

It’s a world where instant gratification is important, and there’s a very consumerist mindset.

The media is a powerful voice for social, environmental and economic justice.

Sustainability agenda

It’s all about meeting minimum targets, and sustainability is still an add-on for most leaders and businesses; they are slow to respond to emerging issues in sustainability as many of the issues appear too long-term. From a consumer point of view, sustainable is often not affordable.

Gains in efficiency, and technological advances (thanks to a relatively consolidated world) are made, which are almost incidentally sustainability gains

Response to climate change

Adaptation is the focus here, and big solutions are popular (and easier to implement), for example the Thames barrier has been upgraded.

There's been a massive growth in nuclear power, which has aided the country's carbon emission targets, but brought problems of its own.

There's also been the development of a national water grid to bring water from north and west to south and east.

Consumer preferences

Value for money is key - authenticity is unaffordable for most. There is little concern with the provenance, and even the overall sustainability footprint of products. But for those who can and seek it out, i.e. premium buyers, sustainability is an advantage (because it's not the norm).

Retail channels

The 'big four' have become the 'big three' and still dominate the retail world. Online (often via these big three) is also a dominant channel, and has very much been integrated into the consumer world.

Health agenda

The NHS is very much feeling the pressure. Investment has focussed on building bigger, better hospitals.

Alcohol is high on the health agenda – seen as a time bomb when the long-term effects of the binge-drinking generations come into force.

Consumers take relatively little responsibility for their health, there is a generalised faith in drugs and non-specific medical 'techno-fixes' to be the answer. All the conflicting advice on how to live healthily is just too confusing.

Rural economies

There are substantial pressures on small agricultural suppliers because of consumer demand for value, i.e. supply chains continue to be squeezed and squeezed.

Alcohol specific

Alcohol use

Overall consumption has increased; binge-drinking has also increased, particularly amongst the younger and disaffected sectors of society. It is a very visible problem.

Perception of alcohol

Alcohol is seen as a big cause for concern in society, and the debate around the best policy to treat it has greatly intensified. Media hysteria around the subject is high, with new ideas, scare stories etc. making headline news very frequently. There are a number of high-profile celeb teetotallers, who champion the abstinence cause as 'one of the most important things you can do for society and for yourself'.

Health warnings to date not been very effective, their focus on the long-term consequences have not been particularly effective behaviour-changers. Costs of alcohol related-crime are very high, but alcohol itself is seen as the criminal.

Campaigns and legislation
Duty on all alcohol has substantially increased.

The government needs to be seen to be sorting it out – legislation so far includes the reversal of 24 hour drinking, and there is a proposal to raise the drinking age to 21. There is a proposal to limit channels to market to only liquor stores or bars, and each individual has an alcohol quota that stores can read at their tills, and prevent anyone from buying over their allotted amount. Remote monitoring of the consumption of high-risk individuals also occurs.

EU legislation has allowed distillation as well as fermentation in the production of cider.

6.6.4 SCENARIO FOUR IN FULL – 'Egocentric and efficient'

Wider world

Socio-economic context
The UK is recovering from a limited economic downturn in the 2010s. This, combined with less desire for connection in society, means that the disparities between rich and poor in the UK have increased. Policy has belatedly focussed on building better-connected neighbourhoods and enhancing social and economic support networks for the more deprived sectors of society.

Sustainability agenda
The sustainability agenda is being dominated by efforts to mitigate climate change (see below). Some think that the strict focus on climate change has diverted attention away from some of the UK's worsening social problems.

Response to climate change
There is a focus on mitigating climate change through carbon efficiency. Personal carbon quotas have been introduced which give each member of the population an annual allowance of permitted carbon use. Anyone that goes above and beyond this quota has to buy additional carbon credits, at a high price. Equally, those who live a carbon light lifestyle are rewarded at the end of the year. As a result, the UK population is extremely carbon literate.

Industry has had to make some significant changes in the lead up to the introduction of personal carbon quotas. All products are carbon footprinted and a standardised swipe card system has been introduced at all retail outlets. At the same time as customers pay for their goods their carbon allowance is deducted automatically.

Consolidation and efficient supply chains are seen as a positive thing because of the carbon savings. Industry has also focused on innovation, with heavy investment in R&D, to make low carbon/efficient choices more affordable.

The government has invested heavily in a programme retrofitting all of the UK's housing to be as energy efficient as possible. House prices heavily reflect their energy efficiency rating. Almost anything below a C-rated home is considered undesirable.

There have also been some large-scale renewable energy initiatives. Large wind farms have been driven through despite land use pressure, and there has been increased investment in wave technology.

All these initiatives have been focused and largely successful so the UK is feeling quite upbeat about the SD challenge, although some think that the strict focus on climate change has diverted attention away from some of the UK's worsening social problems. There is also a growing libertarian resistance movement to carbon rationing.

Consumer preferences
Products that combine low carbon and affordability are best sellers. However there is weak brand loyalty as people are after the best all round deal wherever they can get it.

Retail channels
There has been continued consolidation in the retail sector. People are generally not concerned with the lack of connection with the land, but are encouraged by the benefits brought by the larger channels being able to put pressure on their supply chains i.e. pressure to increase carbon savings and reduce price.

There has also been a large increase in online retail. A revolution in consolidated online delivery and collection means that it is the most carbon efficient method of retail. Many people have a password-protected area built into their house or garden, where groceries or other products can be left securely, adding to the convenience of the process.

Health agenda
There is a focus on healthy lifestyles. There are a lot of large institutions trying to make people healthier such as sport clubs, ambitious sport programmes in schools and organised fitness sessions in the workplace. Insurance is now routinely linked to gym membership and a healthy lifestyle.

Rural economies
Cider has maintained its duty differential largely because of the perceived boost it gives to a suffering rural economy. There has been an agricultural labour mini boom. Cider is perceived (and marketed) as home-grown British rather than at a local regional level.

Alcohol specific:

Perception of alcohol
Alcohol is viewed as something that is fun but can be (and is) abused. Alcohol in moderation is seen as a healthy part of leisure time. Despite the increase in bingeing and alcohol related harm, alcohol is not demonised as it is generally recognised that bingeing is a symptom of the lack of societal cohesion and its effect on individual.

Campaigns and legislation
As alcohol abuse is seen largely as a symptom rather than a problem in itself, government policy on alcohol is fairly light touch. Responsible self-regulation by the big retailers and on-trade chains has

also helped to prevent alcohol being demonised. There are self-imposed maximum alcohol quotas in supermarkets and much stricter standards of behaviour for service in pubs. The industry is seen as doing enough (but only just enough) to encourage responsible drinking

Alcohol use
Alcohol consumption is down overall but ‘abuse’ is still relatively common. Bingeing is still a problem, particularly for the disaffected youth, the increasing numbers of unemployed people, and middle aged drinkers or ‘copers’ who mainly drink at home, who now generally have a lot more to cope with.

Most alcohol is purchased through large supermarkets and online.

Alcohol industry
An overall (though limited) economic downturn of the 2010s provided the impetus for takeovers in the drinks industry. Some small suppliers have been squeezed out of business. Smaller companies are responding with innovative low carbon production techniques, for example less intensive solutions that require more labour. There is a large labour force in rural communities due to an influx of climate change refugees.

6.7 References

Listed below are details of the key sources referred to in the table in section 3.1, and additional sources consulted during the project:

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