



Sustainable food chains: a value chain perspective

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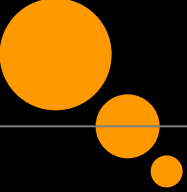
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Presentation Outline

- The market as a motivator for behaviour change
- Co-innovation as a model for reducing GHG emissions
- Case Studies
- Conclusions



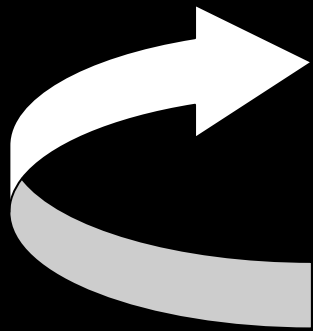
The market as a motivator for behaviour change

- Sustainability is poorly understood by all stakeholders in the value chain
 - Behaviour change is happening but slowly
- Different stakeholders are incentivised in different ways
 - Heterogeneity rules!
 - Motivators Vs enablers
- The most powerful motive is economics not ethics
 - Regulation is necessary but not sufficient
 - Compliance culture = sub-optimisation
- Policymakers and brand managers are running way ahead of consumers
 - ‘Push’ forces currently much stronger than ‘pull’ but this will change
 - Credit crunch adds credence to credence attributes



- Sustainable competitive advantage is a powerful motive for behaviour change

- Allocation and utilisation of resources that is hard for others to contest and even harder to replicate



- Add more value (effectiveness)
- At lower cost (efficiency)
- Faster than the competition (responsiveness)
- Sustainably (environmental, economic, social)

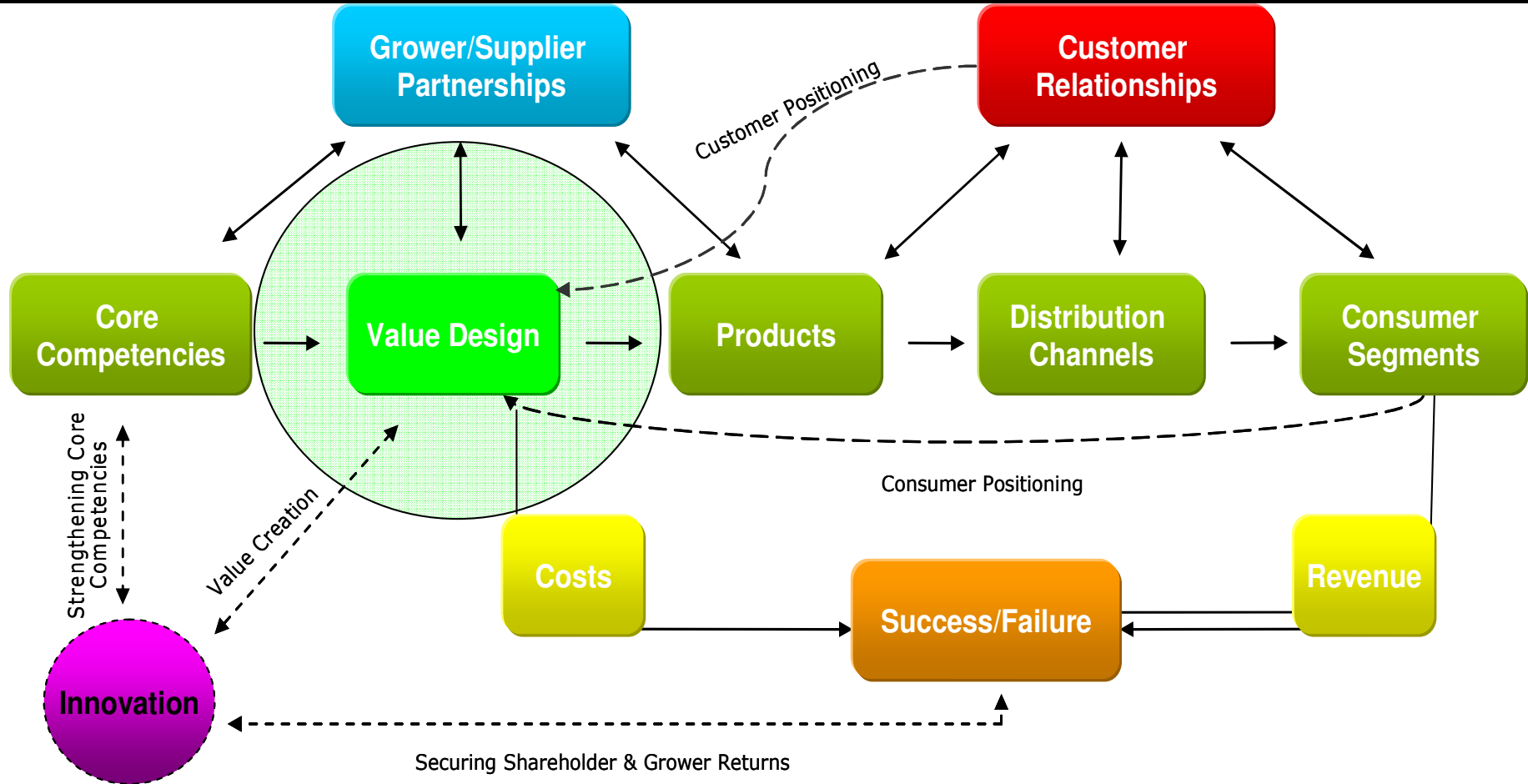
- Channel captains (retailers, branded manufacturers) cannot achieve this by themselves



Co-innovation delivers continuous improvement

- Collaborative allocation and management of resources within and between businesses in the value chain, the purpose of which is to improve the competitiveness of the value chain as a whole
 - Process improvement for existing products/services beyond organisational boundaries
 - How we do it = input
 - Development of new (value added) propositions for distinct customers and targeted consumer segments
 - What we do = output
- Life Cycle Analysis provides a catalyst for strategic dialogue along the food chain
 - Reduction of GHG emissions positioned as opportunity not threat

Co-innovation Model



Adapted from Osterwalder & Pigneur, 2005

What is the value proposition?

Value = benefits – costs – risk

↓
As perceived
by consumers

↓
'Solution to
my problem'

↓
Financial &
Opportunity
Costs

↓
Unfulfilled
Promises

Increasingly
heterogeneous
and often
irrational

Meal occasion,
shopping mission,
final consumer

Price (absolute
and relative), time
(merchandising,
labelling)

Supply chain
integrity
(availability,
experience,
credence)

Money is not the only currency but...

Older adults –
self-indulgence

Time



Ethical/Green



Convenience



Young
mothers –
food safety



Young adults &
pensioners –
diet & health

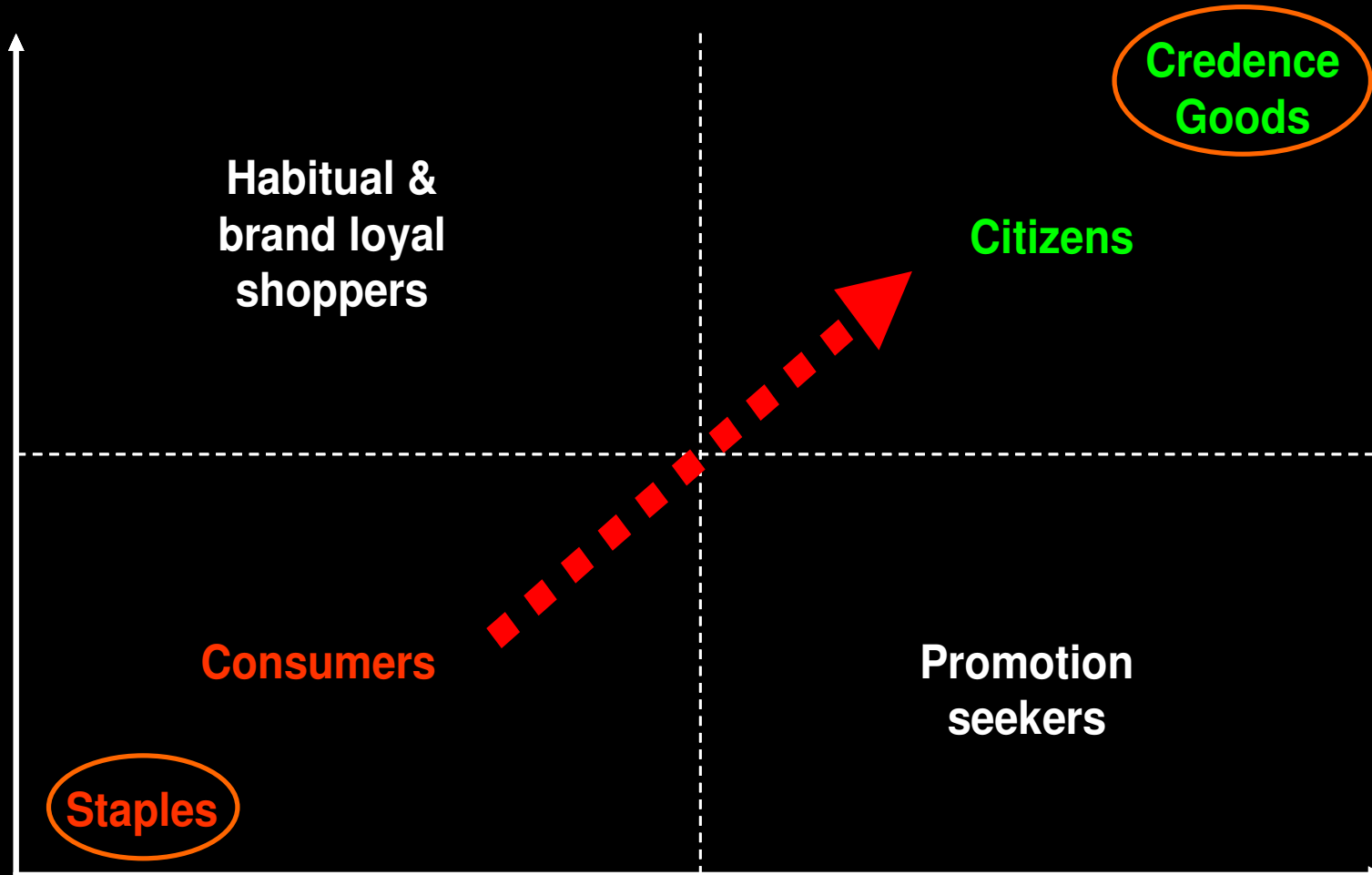


Health



Journey from consumer to citizen

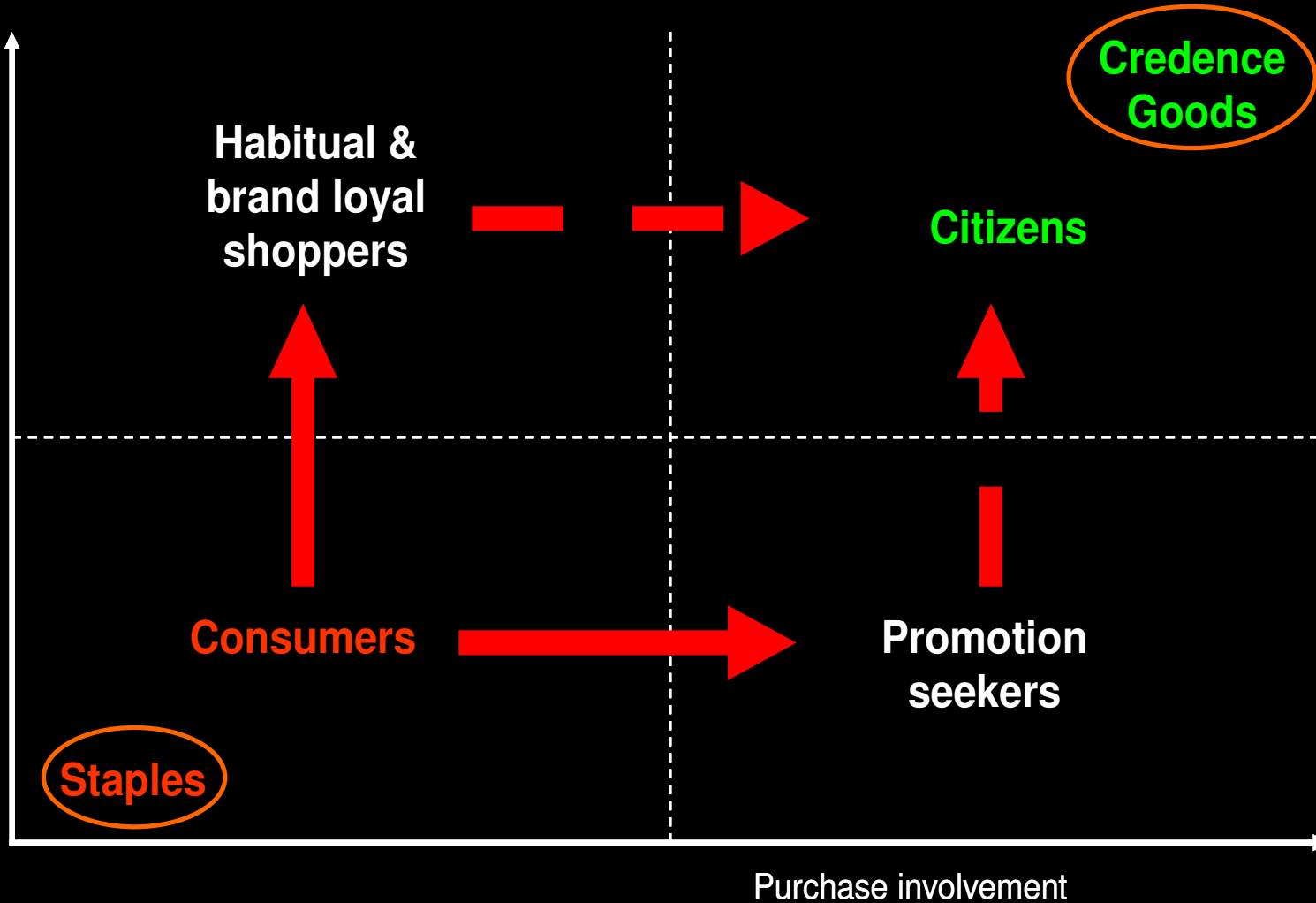
Product Involvement

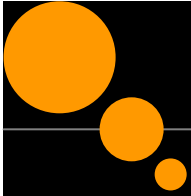


Purchase involvement

Journey from consumer to citizen

Product Involvement





Case Study



Background

- The Australian wine industry is facing one of its greatest challenges in living memory
 - to compete on a global stage with quality wines that are accessible to the mass market, without jeopardising the livelihoods of wine producers, the communities they serve or the environment upon which they rely



Project Objectives

- Explore the potential for using sustainable value chain analysis as a tool for achieving better alignment between resource allocation, environmental management and consumer value
 - Value Chain Analysis (VCA)
 - Life Cycle Analysis (LCA)
 - Oxford Landing – Tesco (OLT) value chain
 - South Australia (the largest wine producing state in Australia)
 - Tesco (the largest supermarket customer for Australian wine)
 - UK (the largest overseas consumer of Australian wine)
- Potential value for other sectors and stakeholders



Methodology

- Value Chain Analysis (VCA)
 - 10 consumer focus groups
 - Survey of 1,000 UK supermarket shoppers
 - 38 semi-structured interviews conducted with 57 people in 12 organisations
 - On-line stakeholder survey (growers (12), input and service providers (10), Yalumba (30), Tesco(1))
 - 3 x 'groundtruthing' presentations
 - Identifiyication of improvement projects
- Life Cycle Analysis (LCA)
 - Assessment of CO2 emissions in the OLT value chain, from grape to glass



Key Findings: Consumer Focus Groups

- More sustainable wine production/packaging may be something that retail buyers are requesting of their suppliers, in an effort to support socially responsible strategic initiatives, but
 - Sustainability is a concept that remains poorly understood amongst UK supermarket shoppers, and
 - Very few UK shoppers currently value sustainability as an attribute of the wine they purchase from supermarkets



Key Findings: Consumer Survey

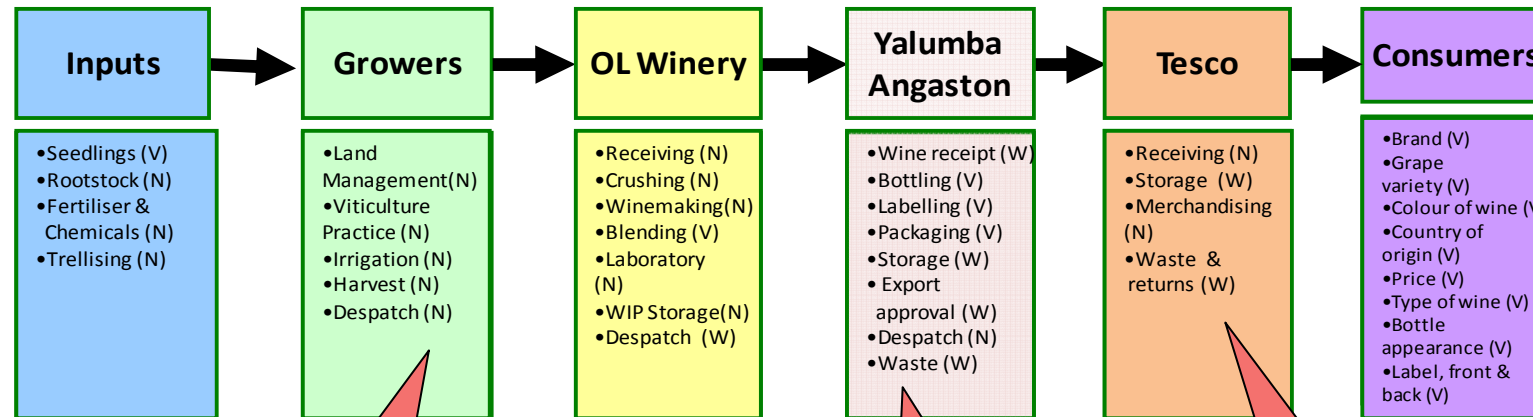
- **Most Valued attributes**

- ✓ Price per bottle
- ✓ Type of wine (e.g. dry/sweet)
- ✓ Colour
- ✓ Grape variety
- ✓ Information on the back label
- ✓ Recommendations from friends/relatives
- ✓ Country of origin
- ✓ Brand name
- ✓ Specific region within a country
- ✓ Year of vintage

- **Least valued attributes**

- ? Recommendation in newspapers/magazines
- ? Alcohol content
- ? Appearance of the bottle
- ? Type of closure
- ? Environmentally sustainable production process
- ? Environmentally sustainable packaging
- ? Design of the front label
- ? Distance the wine has traveled
- ? Weight of the bottle
- ? Suitability for vegetarians/vegans

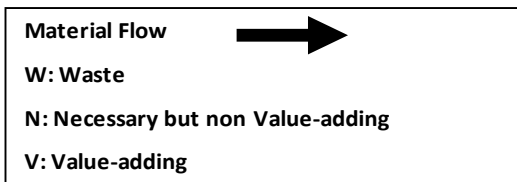
Key Findings: Material Flow



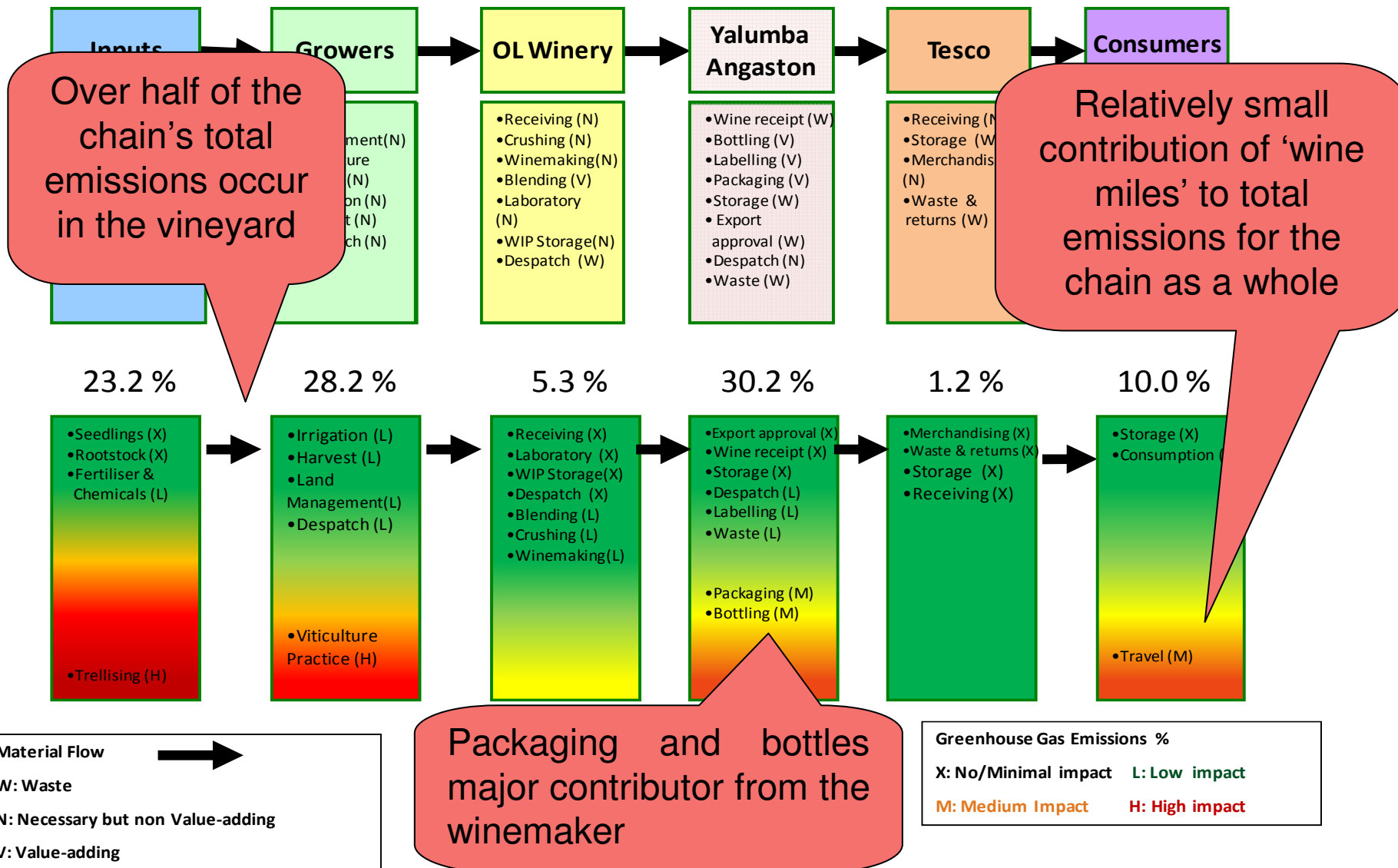
Proliferation of 'necessary' activities highlights need for efficiency

Trans-shipping from the Winery to bottling plant is wasteful

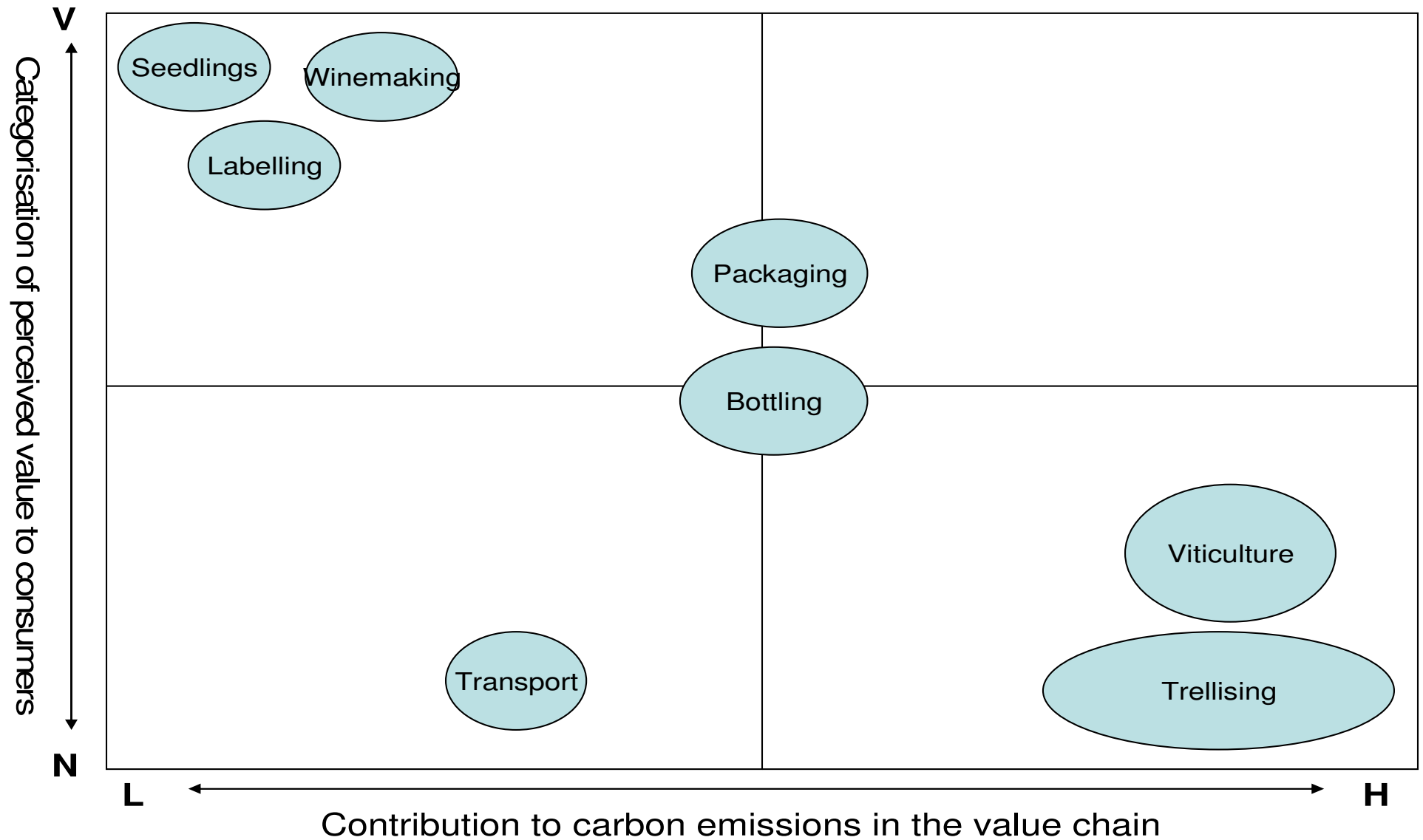
Reliance on promotions increases uncertainty potentially creating waste or loss of value upstream



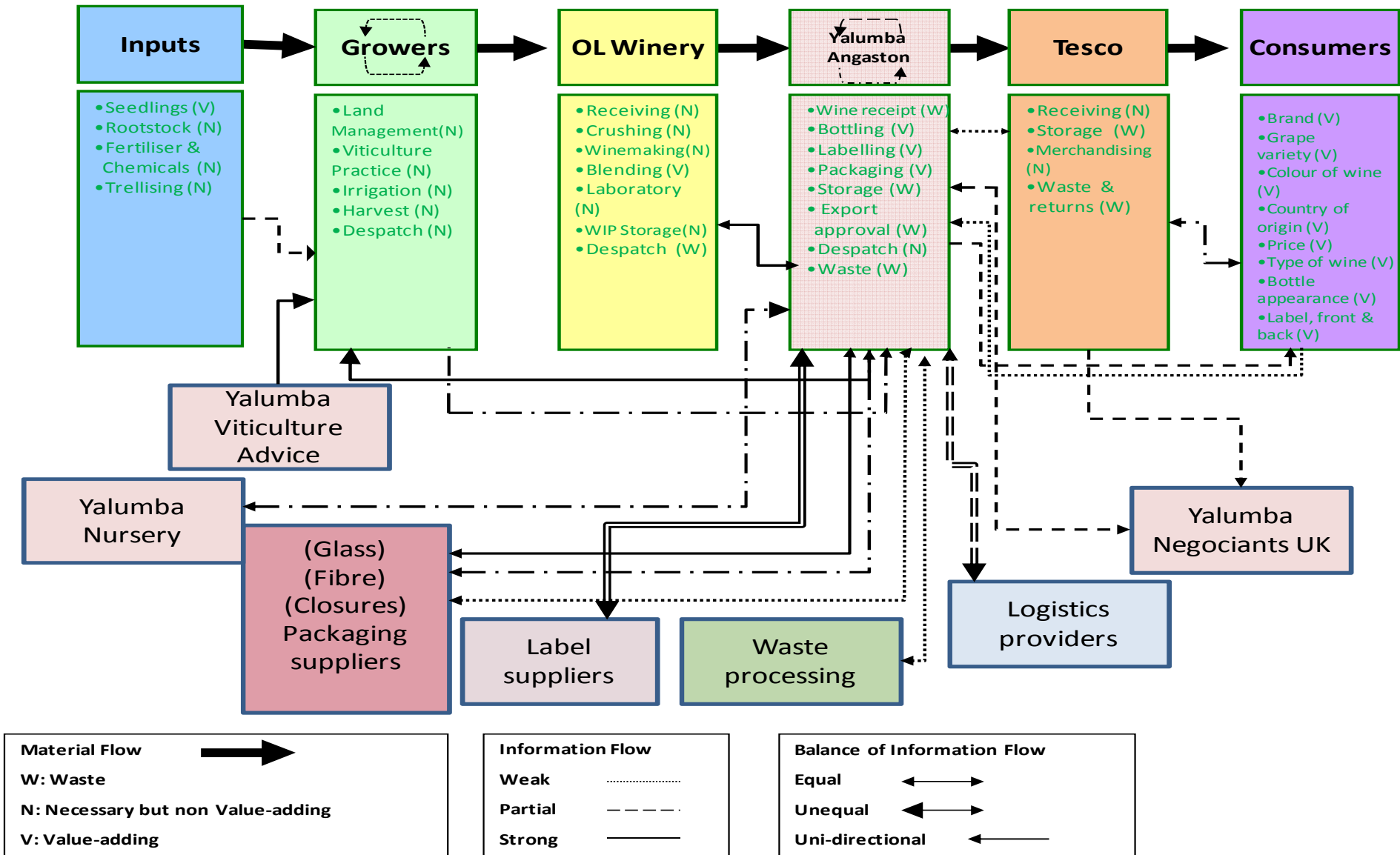
Key Findings: Material Flow



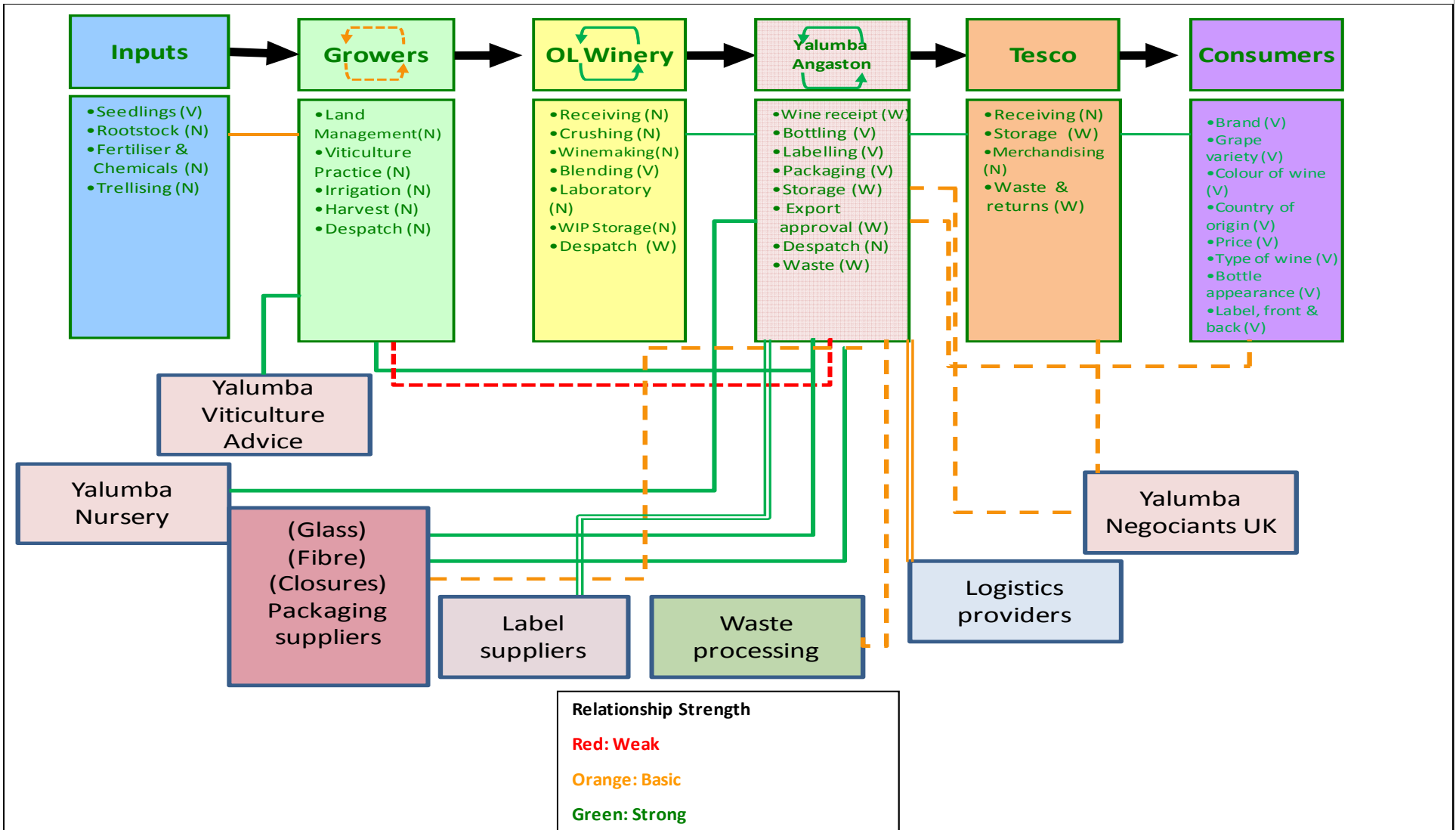
Value-Emissions Trade-off Matrix



Map of Information Flows



Map of Relationships





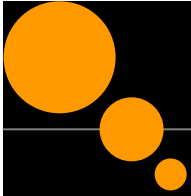
Improvement Projects

- Consumer Insight
- Processing efficiency
- Forecasting
- Innovation culture
- Leveraging sustainability
- Branding (product portfolio)
- Internationalisation of the supply base



Methodological Learnings

- The value of LCA (emissions data) and material flow analysis for decision-making (operational and strategic) substantially enhanced by consumer insights (VCA)
 - Resource allocation, R&D, Capital expenditure, government policy and intervention programmes more closely aligned with and driven by environmental and economic sustainability
- Industry-wide SVCA could facilitate transition from a reactive operational mindset to the development of an integrated value chain approach
 - anticipates changes in the market environment
 - enable proactive decisions to exploit opportunities and mitigate risks

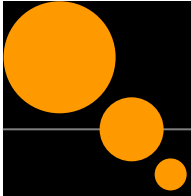


Conclusions



Conclusions

- We are where we are because of market failure so no surprise that the market, by itself, cannot provide all the answers
- Regulators can facilitate and enable but customer needs and consumer wants are the most powerful drivers of all
- Carbon labelling has the potential to be a major catalyst for behaviour change
 - Downstream = heuristic for sustainable purchase decisions
 - Upstream = vehicle for strategic dialogue and mechanism for innovation offset
- Potential most likely to be realised through a collaborative and targeted approach to communication of the benefits to all stages of the food chain



Thank You!
