



The Future of Food

Blog Compilation – Part One



Contents



01

Overweight and obese – the choice is ours as consumers, or is it?



02

The Future of Food: We are running out



03

Food tech – a blessing or a curse?



04

The Future of Food: What a waste



05

The Craft Movement

1. Overweight and obese – the choice is ours as consumers, or is it?

Will people choose to consume healthier, more balanced diets or will the epidemic of cheap foods, high in sugar, salt and fat spread?

The Future of Food

01

Overweight and obese – the choice is ours as consumers, or is it?

Will people choose to consume healthier, more balanced diets or will the epidemic of cheap foods, high in sugar, salt and fat spread?

We all know consumers drive demand, but that is only to a certain degree. Our behaviours are shaped by context and influenced by marketing. Availability of accurate information, as well as affordability and accessibility of nutritious foods, drive our actions. So yes, we as consumers have a choice, but businesses and government have an obligation to society to create the right environment to enable consumers to make the right choice.

Globally 1.4bn people are overweight or obese driven by cheap calories and changing lifestyles, with Australia as one of the top countries of high levels of obesity. Currently over 50% of the world population does not consume a proper nutritious diet¹. What does that mean for our future, and that of our children?

A study from Deloitte and the World Economic Forum (WEF)* looked into how the future of our consumption and the global food systems may unfold in the coming decades. A likely scenario is one where the western life style is introduced to other parts of the world through increased global connectedness and trade efficiencies. It imagines 2030 with the unhealthy consumption of today, but then spread to other parts of the globe. This possible reality is enabled by technology efficiencies in food production and distribution and driven by ever increasing demand that will see trade accelerate as markets boom.

Conflicting evidence about desirable diets and a proliferation of labels will have created further confusion and perpetuated unhealthy choices. Obesity and health costs will rise dramatically as billions of consumers transition to a high volume, high calorie, and low nutrient diets.

Now that is a frightening outlook.

We believe however, that we could be at a critical point of inflection. Consumer preference in developed countries is changing to explicitly include health, wellness and sustainability in food purchasing decisions. With the right responses from businesses and government, we could alter the course of our health and food consumption.



The Future of Food - Overweight and obese – the choice is ours as consumers, or is it?

So what do we suggest companies, policy makers and social institutions do?

Companies could build on the changing consumer preferences and capture the opportunity by investing in health and nutrition through:

- New products and services supported by accurate marketing and consumer education to promote healthier diets. Examples of product innovation include formula changes, smaller portion sizes and the introduction of calorie caps. In addition, the provision of digital services linking consumption to individual health implications could impact the wellbeing of consumers while enhancing the brand value.

- Establishing new business models to ensure nutritious diets are accessible and affordable. Technology innovation in the supply chain could play a key role in reducing cost to produce and cost to serve.
- Technologies, infrastructure, equipment and services that preserve nutritional value of foods. This requires a greater focus on time to market and preservation of 'fresh'.



Proactive policies are critical to the transformation of food systems, for example:

- Integrating health costs and national capital depletion considerations into food-focused decision-making across national budgets, planning and policies. Examples include the integration of nutrition into education systems and the prioritisation of prevention in health policy linked to dietary choices.
- Redesigning policies to strengthen health outcomes. For example public subsidies could be redirected towards highly nutritious crops, lowering the price points of healthy foods. In complement, social marketing campaigns could promote dietary diversity and the prioritisation of nutrient-rich foods.



01

02

03

04

05



The Future of Food - Overweight and obese – the choice is ours as consumers, or is it?

With care, policies can direct the power of choices towards more nutritious and sustainable diets while increasing system resilience. Policies can also strengthen integrated efforts in infrastructure, domestic economic policy, financial markets and other areas.

Support from media and influencers will be needed to ensure such priorities are elevated on business and policy agendas and could include:

- Promoting a new type of eating that supports personal health and reshape perceptions of what foods are desirable.
- Addressing structural inequalities for populations left behind in the evolution of food systems. Social programming can complement government safety nets to protect the most vulnerable.

The future of our global food systems holds risks for (human) sustainability, however also provides great opportunities for our people and businesses to thrive whilst shaping the world we need.

Our choices as consumers, businesses and governments – through action or inaction – will determine our path.



**Note: The [Deloitte and WEF study](#) explored various likely scenarios based on consumption and market connectedness. It looks into 'what', 'how' and 'where' food will be produced and consumed including the possible implications on economic development, sector configuration, network risks, inequality, hunger, poverty and climate change. See endnote '1' for source link.*



The Future of Food

2. The Future of Food: We are running out

The food industry is faced with a challenge to feed a rapidly increasing population. What should we do to create a sustainable future of food?



The Future of Food

02 The Future of Food: We are running out

Picture this: The world has ran out of water, quality agricultural soil and therefore food. We apologise for the inconvenience caused.

It sounds like an unrealistic scenario, however there are early signs that signal a shift to this alarming reality.

The food industry is faced with a challenge to feed a rapidly increasing population. In 2030 8.5 billion people will be in need of food. That is an impressive 1.1 billion people more than today². And rightly focusses our attention to increasing yield.

However, a higher yield, could have undesirable consequences for the world if the production is unsustainable.

The food sector currently accounts for 70% of water withdrawal – the total volume removed from a water source such as a lake or river. These extraction volumes have increased threefold over the past 50 years and demand is expected to rise by a further 40% over the next decade.

On top of that, about one third of arable land is degraded – a figure that continues to grow and is related to farming intensity and expansion into marginal production areas.

Unfortunately for us, water and land are a finite set of resources on which we are currently wholly dependent for our next meal. Resources we as consumers, businesses and government must protect³.



So what do we suggest we do to create a sustainable future of food?

Governments

- Carefully set adjusted prices on carbon and water.
- Stimulate on-farm diversity and rebalance the “food baskets” regions of the world.
- Facilitate market connectivity such that innovation in sustainable farming is able to scale.
- Continued public investment in R&D and sustainable advisory services especially for priority themes such as enhancing water use efficiency.
- Avoid deprioritisation of environmental agendas in view of immediate economic concerns such as job creation.



01

02

03

04

05



The Future of Food – The Future of Food: We are running out

Businesses

- Invest in water efficiency innovation, smart farming and reuse of watering solutions.
- Increase collaboration with other businesses and universities to boost innovation.
- Educate the consumer such that sustainable effort is valued and costs can be recovered.
- Minimise food waste and/or repurpose produced food.
- Ensure short-term gains do not distract from long term economic principles.

Society, including media

- Educate consumers and promote sustainable products.
- Empower and mandate global organisations, such as the World Trade Organisation and World Health Organisation, to broker global solutions to the food systems challenges we face.

The future of our global food systems holds risks for sustainability, and solutions will require a whole of system approach.

Our choices as consumers, businesses and governments – through action or inaction – will determine our path.



01

02

03

04

05



3. Food tech - a blessing or a curse?

There is no doubt food technology innovations such as bio-innovation, gene editing, robotics and AI, will dramatically reshape how we produce, manage and demand food. However, their effects are likely to be unevenly distributed.

The Future of Food

03 Food tech – a blessing or a curse?

There is no doubt food technology innovations such as bio-innovation, gene editing, robotics and AI, will dramatically reshape how we produce, manage and demand food. However, their effects are likely to be unevenly distributed.

Countries and farmers who can afford to ride the food tech wave will prosper whilst others will fall further behind. The impact of the tech revolution could, unintentionally, lead to an even greater divide between the 'haves and have-nots' and exacerbate inequality in availability, access and affordability of food.

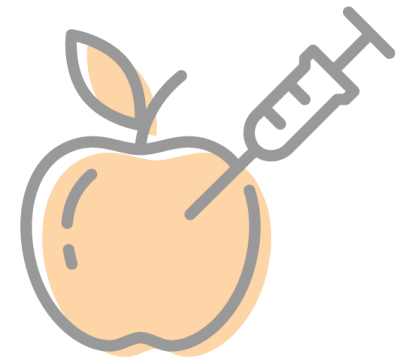
Although likely, this scenario does not have to play out. We have a choice. Government, businesses and society can, collectively, create a world where technology is instead used to narrow the gap.

One of the critical enablers for this new future will be increased market connectivity. In order for innovation to scale, markets will have to foster collaboration and actively create and support open source platforms.

This will not be an easy task, especially in today's world where geopolitical dynamics are demonstrating nationalist and isolationist tendencies, as evidenced by recent events and elections in the United States and Europe, which may impact trade agreements and international collaboration.

To tackle inequality and to allow technology to bridge the divide, now more than ever, governments and international bodies will need to find ways to collaborate and keep data and innovations open and accessible to all.

Technology can then become the true driver of sustainability. It can ensure human sustainability by creating smart ways to increase production yield and nutritional values. Secondly, it can enable sustainable production (precision farming) and preserve our critical natural resources such as water. And lastly, technology can be a game changer for the sustainability of the sector by attracting talent.



01

02

03

04

05



The Future of Food – Food tech – A blessing or a curse?

One of the biggest challenges in western society is the lack of people, particularly the younger generations, who choose a career in farming. This is a serious threat to this sector with many aging farmers facing situations with no one to hand their business over to. Smart farming however could change that perception, alter the lens on sector attractiveness, and make farming sexy again.

Technology, fostered in the right way, can become the blessing this world needs to overcome the challenge of feeding the growing population and addressing important issues, such as inequality in access to nutritious food. But how and to what extent technology is harnessed, rests with us.



Here are our suggestions:

Governments

- Embrace market connectivity and international trade with provisions for responsible practices.
- Foster innovation through governance incentives, facilitate collaboration platforms and food tech hubs.
- Facilitate access to capital to enable smaller farmers to invest in technology.
- Stimulate transparency in food sourcing and efforts to address inequalities along the chain.

Businesses (farming, food processing and tech companies)

- Actively seek opportunities to collaborate in the sector, including universities, allowing innovation to prosper and scale.
- Increase adoption of the use of big data and satellites for smart farming and embrace technology that enables food to be produced in radically new ways.

- Prioritise tech innovation to help bridge the 'last mile' problem for small farmers who account for approximately 80% of food production in the developing world.
- Collectively change the lens on sector attractiveness through education programs at universities and joint innovation initiatives.
- Leverage, where appropriate, block-chain to increase access to finance to fund technology investments.

The future of our food systems holds risks, but also creates opportunities for markets and consumers to prosper when we allow technology to help create the world we need.

Our choices – through action or inaction – will determine our path.



01

02

03

04

05



4. What a waste

At present, we waste a shocking 1.3 billion tonnes of food globally each year. Often food waste is thought of in the context of world hunger, but it is much bigger than that. It is an economic, environmental and social challenge.

The Future of Food

04 The Future of Food - What a Waste

It's 6.30am. You shower, dress and open the fridge to get some breakfast. You grab the yogurt, realise it has passed its use-by date and throw it out.

Glancing at your watch, you quickly prepare the kids lunchboxes, knowing most of its content will return uneaten. Rushing out the door, you avoid an overflowing street bin and catch a glimpse of an advertisement reminding you of the millions of starving people who need the food you have just seen wasted. Sound familiar?

Often food waste is thought of in the context of world hunger, but it is much bigger than that. It is an economic, environmental and social challenge.

Not only does throwing away perfectly good food mean the food itself is wasted (including the nutritional and societal opportunity costs of not providing the food to those in need) there is a second and often overlooked problem; the wastage of resources that have gone into making the food. This includes water, fuels, fertilisers, transport and packaging along the entirety of the value chain of a food product. It's an exponential problem.

At present, we waste a shocking 1.3 billion tonnes of food globally each year⁴. Most of it is avoidable.

Addressing waste effectively requires insights into the stages of the food cycle where wastage occurs and this is directly linked to the economic maturity of a market.

In the developing world, food wastage primarily occurs during production, handling and storage. Poor infrastructure and disjointed distribution networks cause the most food wastage in developing countries; often due to poor harvesting and processing techniques and spoiled food due to a lack of transport infrastructure.

The proportion (40%⁵) of total food production wasted in the developing world could be addressed through access to temperature controlled supply chain technology and reliable energy sources for crop production, and investment in infrastructure and transport facilities to improve time-to-market and quality control of produce in these areas.



01

02

03

04

05



The Future of Food – The Future of Food: What a waste

Notable current initiatives such as the World Food Programme Innovation Accelerator (WFP) whose successful and scalable projects include introducing easy-assembly silos for farmers and Prometheus Power Systems, an Indian company which has developed a sustainable and affordable refrigeration technology. Government incentives and participation of consumer product companies in these type of initiatives are much needed.

More mature economic markets like Australia see wastage levels peak during distribution and consumption. A combination of poor supply chain practices and consumer behaviour underpins the high levels of food waste. Here, stringent aesthetic standards mean 'undesirable' produce rots at farm-gate, produce with sub-optimal shelf life is abandoned on retail shelves, and large pack sizes drive the excess produce languishing in our fridges, pantries and rubbish bins.

To counter this, governments and retailers have launched public awareness campaigns such as Harris Farm⁶ and Woolworths' 'ugly produce'⁷, OzHarvest's⁸ and SecondBite's⁹ food rescue and the UK initiative 'Love Food Hate Waste'¹⁰ which successfully reduced UK food waste by 18% in five years¹¹.

The French government has gone as far as adopting a law to crack down on food waste and has banned supermarkets from throwing away or destroying unsold food, which they must instead donate to charities or for animal feed.

Whilst great work is being done in this area, there is still a long way to go to reduce food waste. Consumers, retailers, consumer product companies and governments can all contribute and collectively address the epidemic of wasted food and bridge the divide.

Our choices – through action or inaction – will determine our path.



01

02

03

04

05



5. The Craft Movement

Not that long ago views on 'craft' were limited to strange sounding beers offered in small bars and exclusive handmade breads at the artisan baker. Our perception of craft and its market adoption however, is rapidly changing.

The Future of Food

05 The Craft Movement

Not that long ago views on 'craft' were limited to strange sounding beers offered in small bars and exclusive handmade breads at the artisan baker.

Our perception of craft and its market adoption however, is rapidly changing. Craft is delivering unprecedented growth even in declining categories.

Beer, spirit and coffee are clear examples, but the craft movement isn't stopping there. Nowadays when you think of 'craft' you may think of chips, breakfast cereal, oils and spreads, dairy products and vegetables.

The rise of craft food is undeniable and it is shaking up the food industry.

So what is 'craft'? Definitions take us back to the Middle Ages where educated craftsmen were skillfully producing goods from materials such as ceramics, wood, metal and textiles. Then along came the industrial revolution, and the machine re-defined the type of products we buy and consume. Interestingly, we are now seeing a movement back towards hand-made products and real ingredients, as craft re-emerges, with consumers seeking high-quality products that offer unique experiences.

What makes craft products attractive to consumers? In today's mass-manufacturing world there are so many products competing for the consumer's attention, it can get overwhelming. Consumers look for simple cues the product they are purchasing is better than the rest. By creating a story around the authentic creation of the product, consumers are able to connect with it. That connection based on a compelling story is crucial in an era where brand loyalty is at an all-time low.

A pre-requisite however is that both the product and narrative are perceived to be authentic. This is particularly important in today's digital world where information is easily accessible and shared, and where transparency is the norm.

Designing a compelling narrative is not easy, but once the craft proposition is right, it is highly lucrative. A Deloitte shopper survey¹² found 33% of consumers were willing to pay significantly more for craft versions of products. And local research undertaken by one of our Decision Science Partners, Dr Nuttall, revealed Australian consumers are willing to pay a premium, up to 40%, for products which have an authentic narrative associated with their production.

Whether it be a cup of coffee or a piece of art, consumers consistently rated product quality to be superior when the producer was described as authentic – either culturally authentic or in terms of their genuine passion for delivering the product or service.



01

02

03

04

05



The Future of Food – The Craft Movement

Craft can, however, be a fickle game. The shift towards craft products means traditional consumer product organisations are having to rethink their product portfolios, associated supply chains and business models. This can come with unexpected risks and may require different skills and capabilities.

A good example is the Campbell Soup Company which expanded into fresh categories with the acquisition of Garden Fresh Gourmet and Bolthouse Farms. After a challenging period, management recognised the model that works in packaged food doesn't always work for artisanal products, especially when dealing with the challenges of the fresh departments in supermarkets.



Vertical integration into agricultural areas such as carrots also exposed the company to degrees of volatility in the supply chain it may not have been exposed to before. This isn't holding Campbell's back. The company is committed to stay the course of its Real Food Journey, but it has provided valuable lessons for them and the industry.

So how can businesses start taking advantage of the craft movement whilst navigating its challenges? Consumer product companies can either build their own craft brands or acquire them. In any case, deliberate choices will need to be made around business models and capabilities to ensure success. One of those critical choices when entering craft is whether to integrate the craft portfolio within the current business or to manage it separately.

The answer depends on how differently success is defined, whether it requires distinctly different capabilities and whether it needs to be seen by the market as being separate from the core in order for the craft brand to be seen as credible and maintain its authenticity.

Finding the right answer for your business isn't easy and requires careful consideration of the brand positioning and associated consumer brand perception as well as business model implications.

It is clear the craft movement has truly taken off and there is premium value to be realised in an otherwise challenging market. Successful companies will be those that have an authentic narrative associated with their craft product proposition and know how to navigate the business model change.



01

02

03

04

05



The Future of Food

Endnotes

1. [Shaping the Future of Global Food Systems: A Scenarios Analysis](#), Deloitte and World Economic Forum (2016)
2. Ibid.
3. Ibid.
4. Ibid.
5. [Global Food Losses and Food Waste](#), Food and Agricultural Organisation of the United Nations (2011)
6. [Imperfect Picks](#), Harris Farm Markets (2017)
7. [The Odd Bunch](#), Woolworths (2017)
8. [What we do](#), OzHarvest (2017)
9. [SecondBite: Food for People in Need](#), SecondBite (2017)
10. [Love Food Hate Waste](#), Waste and Resources Action Program (2017)
11. [Estimates for household food and drink waste](#), Waste and Resources Action Program (2011)
12. [The 2015 American Pantry study: The call to re-connect with consumers](#), Deloitte (2015)



01

02

03

04

05



The Future of Food

Contact



Vanessa Matthijssen

Partner, Consulting
National Consumer Products Lead
Tel: +61 404 371 235
Email: VMatthijssen@deloitte.com.au

With more than 20 years' experience advising clients in the consumer products, agribusiness, FMCG and retail sector, Vanessa has a deep understanding of the industry dynamics, consumer and market trends and related growth opportunities. She combines her skills in corporate and commercial strategy, turnaround programs as well as the design and management of large transformations with her passion for food to drive positive commercial results with progressive societal outcomes.

Contributors

We wish to thank the following Deloitte team for their contributions to this blog compilation.

Paul Dobson

Partner
Risk Advisory

Dima Irina

Manager
Consulting

Grace Falkiner

Senior Consultant
Consulting

Zoe Diamond

Senior Consultant
Consulting





This publication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively the “Deloitte Network”) is, by means of this publication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this publication.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

About Deloitte

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte’s approximately 244,000 professionals are committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia’s leading professional services firms, Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 7,000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site at www.deloitte.com.au. Liability limited by a scheme approved under Professional Standards Legislation.

Member of Deloitte Touche Tohmatsu Limited.

