

Green MashUp: 10 megatrends for 2015



Ecofication of urban areas is now essential. Pictured: New York's High Line.

Leon Gettler | 20 January 2015

Wondering what the year will bring. It's still young and fresh. Anything can happen. To provide a logical guide though, following are 10 of the mega trends that are likely to have a big impact on shaping the sustainability landscape in 2015. Why not add your own in comments?

1. Urban ecofication

The world is becoming more urban. Data shows that more than half of the world's population (54 per cent) lives in urban areas, but this will increase to 66 per cent by 2050.

All up, demographers are saying another 2.5 billion will be added to the world's population by that stage and, according to the UN, about 90 per cent of that will be concentrated in Asia and Africa. Futurist Anne Lise Kjaer, who runs trend forecasting agency [Kjaer Global](#), says it could reshape sustainability.

"Ecofication has become essential and the car-free city is set to reweave our urban fabric," she writes. "Green infrastructure is a must since, by 2050, 70 per cent of the world's population will be urban, with the top-five megacities located in Asia.

"Inspiration for how successful communities will operate in the future can be found in Singapore, which has developed a 15-year masterplan for intelligent transport systems."

Take a look at cities like Copenhagen, declared the most liveable city in 2014 by Monocle, 2014

European Green Capital and CNN's "healthiest city".

Communities are even getting involved in green infrastructure. For example, in New York, locals got together to create a non-profit walkway scheme – the [Highline project](#). This empowered and linked whole neighbourhoods, at a cost of \$150 million.

2. Gigonomics

More and more people are working as individual traders. They don't have jobs anymore: they have gigs. The numbers tell the story of how the workforce is changing.

According to the Australian Bureau of Statistics, there are one million contractors out there, about 8.7 per cent of the workforce. About 73 per cent are male. Most are in the construction industry (32 per cent) and the professional and technical services sector (13 per cent), covering such areas as law and accounting, bookkeeping and payroll services, architecture, engineering, design, computer services, consulting, research and advertising. About 76 per cent say they are able to work on more than one active contract.

How does a company handle that? How do gig-meisters interact with staff, company fabric and loyalty? How do companies protect intellectual property when they're dealing with so many fly-by-night employees?

Gigonomics was always very much par for the course for certain industries. Musicians would be an obvious example. Now it's reshaping the broader workforce. Bringing in a bunch of people focused on how much money they'll make per gig will change companies and their cultures. These aren't lower end temps either. There is a growing army of interim managers, even interim CFOs, taking on gigs for up to six months at a company.

As the interim army become more dominant, companies will have to rethink their management styles. They will have to rework their systems to accommodate interim personality types, while maintaining morale. All of this will have an impact on sustainability. It means smaller offices and smaller more flexible workforces, reducing carbon footprints.

3. Collaborative consumption and the sharing economy

Developments like [Airbnb](#) and [Uber](#) have transformed consumerism and are creating new pathways for a more sustainable society. What we have here is a new economic system. Think about it: ordinary people have become suppliers, creators and distributors of goods and services. What makes this interesting is the way it connects producers and consumers, creating communities.

The result: environmentally-conscious businesses. Australia for example has [TuShare](#), which is helping de-clutter closets by encouraging people to give away things they no longer need. TuShare's aim is to make sharing easy by saving items from ending up in landfills.

Those who want car pooling to get from Point A to Point B in an environmentally friendly way can look at [GoGet](#), [Carpool One](#) and the developing [UberPool](#) (still in beta).

The [Australian City Farms and Community Gardens Network](#) is the place to start looking for locally run gardens near you, and it's also handy to contact your local council. Alternatively, get together with friends and take it in turns to do a weekly bulk buy at your farmers' market.

A home swap could be just what you need to get across the country and around the world. [Clothes swaps](#) are also popping up around the community as a way to save your unloved garments from going to waste while kitting out your wardrobe with something new.

4. Services as a product

This is reshaping the business world where businesses are packing services as products and making the intangible tangible. It represents a new platform paradigm for connecting independent workers to buyers. This enables the buying and selling of services in just a few clicks. It's easy, and there's no negotiation. Many companies are now doing this. Think of [Amazon](#) and [eBay](#). These firms have a real competitive advantage because they are lean. It's the future of business.

5. ICT

Information and communication technologies are creating systems that are more intelligent. This in turn creates a more sustainable society. How so? Think of [wellness sensors](#) in buildings, dedicated devices and [health/fitness enabled smart devices](#) such as smart watches, smartphones and tablets. It is estimated there will be 515 million of these devices in operation in 2017.

Add to that the growth of [smart cars](#). The cars of tomorrow will be fitted with various sensory devices, organs if you like, that probe the surrounding area and act autonomously in emergencies to prevent accidents. These vehicles will not only be able to communicate with road infrastructure; they'll also be talking to owners' smartphones, personal robots and smart buildings. Many of these cars are made from recycled and sustainable materials and are designed for disassembly, so that individual parts can be replaced if necessary and the discarded parts can be recycled. Fuel consumption is low, as are emissions. Also, the body panels and many other components are made from plastics, which reduces the overall weight of the car. As a result, less fuel is used. All this is driven by the ICT industry.

6. Rise of the digital nomads

Digital nomads are creating smaller footprints. Need to scan vendor contracts while at your local café. Try [JotNot Pro](#). It allows you to scan business documents to the PDF format on your iPhone. Want to get around easily or look for a new location while you are in another part of the world? Try [Google Maps](#). Want to get paid promptly and automatically via your smartphone? Try [Apple Pay](#). Or you can try the social media and mobile payments mashup of [Venmo](#), [Google Wallet](#) and [PayPal](#). This can be done outside of an office from anywhere, even when you're away.

7. China: the next eco innovation hub

China's relentless efforts to address massive environmental challenges such as energy, transport, construction are starting to take shape. It is eco-innovation on a giant scale.

Take for example the Beijing showroom, which has become the world's first LEED v4 beta certified project. Or the Beijing subway introducing 40 “reverse vending machines” that enable passengers to offset their travel costs by recycling plastic bottles. Then there's Nike, which has built a store in Shanghai made entirely from garbage. It's constructed from drinks cans, water bottles and old CDs and DVDs. The no-glue construction ensures all materials can be reused.

What about the slowdown in China? How will that affect sustainability? According to The Diplomat, China does not have to sacrifice growth if it implements the right policies.

“Even in an authoritarian regime, the central government tries to reflect individuals' preferences in its decision making to maintain social stability. However, without a voting mechanism it is difficult for the central government to know median preference, and policy making is likely to be determined only by the information that can be observed. The government in China has thus paid more attention to problems that are more visible, such as air pollution in big cities. The Chinese government's preference always leans toward faster economic growth with lower environmental standards, which is not necessarily aligned with individual citizens' preferences. The public knows best its own preference for the combination of income and pollution, making public participation instrumental to sustainable development.”

8. Retail everywhere

We are now seeing a revolution in retail where e-commerce and pop up shops are taking over. The result: a smaller footprint for the retail sector. According to consultants at AT Kearney, retailers wary of “real estate wars” and long ROI horizons have seized the online retail opportunity as consumers across the globe in both developed and developing markets go online to buy products. They are using a variety of growth strategies, from grassroots websites to acquisitions of smaller online retailers or expansion of international shipping capabilities.

AT Kearney says consumers in both developed and developing markets do their homework before buying online, studying product features, pricing, shipping options, and retailer returns policies. They gather information from stores and websites and solicit friends' opinions through social media and blogs.

With their smart phones, they don't even have to go to a shop. Now more than ever, consumers are using mobile phones and smart devices to research products and prices. Studies have found that nine out of 10 mobile phone owners in Brazil and more than half in the United Kingdom use mobile devices to learn about retail offerings. Retailers are also pushing the envelope on delivery options to enhance online shopping convenience. UK grocer Asda is piloting the use of collection lockers outside of its stores so that online consumers don't have to worry about racing to the supermarket to pick up their “click-and-collect” orders before the store closes. Also under consideration are collection hubs in business parks, universities, train stations, and park-and-ride stations.

In developing markets, retailers are making similar strides in product delivery despite greater logistical constraints. Chilean department store Falabella gives online consumers a 24-hour product delivery option and allows them to select from a variety of delivery times.

Pop-up shops have to be added to the sustainability equation. These are short-term stores, anything from one day to three months located in high foot traffic areas like city centres and malls. They move into an existing store front, no assembly needed. It's a cheap solution for brands that can make these retail spaces their own without renovation and expensive repairs. Pop-up shops are perfect for online brands to enter the offline marketplace.

9. The Internet of Things

This is likely to change sustainability forever. The Internet of Things occurs when objects, animals or people are provided with unique identifiers. This gives them the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. The Internet of Things is the result of a convergence of wireless technologies, micro-electromechanical systems and the internet.

As Green Capital points out, our devices would never sit on standby all day and they would charge only when the power was cheapest or most plentiful.

“Our gardens would water themselves in exact accordance with the hourly needs of the plants, never more. Our heating or airconditioning would check the weather forecast and plan ahead. This is a system-level approach to energy and resource efficiency that bypasses any reliance on people remembering to act or voluntarily acting on moral grounds.

“As the Internet of Things becomes ubiquitous in our lives, as it looks likely to do, such automated system management will become a background reality for everyone. It will be built into every electronic appliance, every phone and laptop, and eventually into the very fabric of our buildings. Efficiency settings will likely come as standard. Sustainable living may no longer be a choice of a minority – it may become the default for everyone, and they'll hardly even notice.”

10. 3D printing comes into its own

By using 3D printing, otherwise known as additive manufacturing, manufacturers will be able to create designs without relying on gas-guzzling transportation vehicles. To date, the manufacturing and design process has been cumbersome. Traditional manufacturing produces high emissions and higher waste volumes. But digital design and 3D printing changes all that, eliminating associated fuel costs and streamlining the prototyping process.

According to Greenbiz, it will revolutionise sustainable design.

“Traditional manufacturing methods focus on milling a starting blank — that is, removing material until you've achieved the desired shape — or injecting material into a mold. Both types of processes rely on expensive, high-throughput machinery to achieve high economies of scale that minimise costly raw material waste, so such manufacturing is generally performed at a company's main production facility and then shipped around the world. In an additively manufactured product, in contrast, the product is printed layer by layer, with each cross section stacked on top of the one below it. Because this operation can be performed without huge, high-throughput machinery, it can be performed at hundreds or

thousands of remote locations — or millions, if you consider the potential of a 3D printer in every household — with near-zero waste.”

Business models that incorporate the cost of 3D printers into home mortgages or long-term leases will revolutionise certain product market segments. Like online shopping, 3D printing will become a reality that could have a big impact on the environment.