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INSIGHTS

MAKING INNOVATION HAPPEN

INNOVATION AND CHANGE

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OVERVIEW

Innovation is essential for all organisations that want to stay ahead of their competitors, create and disrupt markets, and deliver the outcomes needed to succeed. A business or organisation that does not recognise the need to innovate, or is not continuously innovating as part of its dayto-day business, is not sustainable.

It is important to recognise that innovation can come in many different forms - it is not just about product design, service development or new technology. At its simplest, innovation is:

"Turning Ideas Into Sustainable Value"

Ideas can come from anywhere in an organisation. New ways of working, team-level process improvement, changes to resource allocation, and different customer engagement models are some examples. Innovation happens when the ideas stick and create sustainable value.

The challenge is that innovation can be hard to embed. Turning ideas into sustainable value as part of day-to-day business is not easy. Unintended systemic barriers to innovation can arise due to the complex interaction of people, processes, technology and culture. Embedding innovation as a way of working that 'sticks' demands different thinking – and tipping points.

In what might often be described as complex innovation systems, ideas still come from people, and this will only happen in a conducive environment. As actors in the system, people have the greatest influence over innovation. Their capability to turn ideas into value and make change is only made possible through interaction with colleagues, suppliers, customers and other actors in the complex innovation ecosystem.

A key factor that increases innovation is establishing diversity of thinking. New connections are made, bringing different perspectives and enabling people and teams to join the dots and address important and complex challenges. People's interactions, whether planned or by chance, increase the supply of ideas. However, ultimately, it is culture that will determine whether the value of ideas can be unleashed, hindered or even blocked, making the difference between failure and success.

This paper identifies user-supplier collaboration as an ideal model to accelerate innovation that creates value. Planned and ad-hoc engagement within a connected network of users and suppliers can lead to the by-chance and deliberate generation and advancement of new ideas. Existing, new, latent, and even unknown demand can be uncovered, providing new perspectives.

Matching an increase in the supply of ideas with increased market demand for those ideas creates a virtuous and continuous cycle of user-supplier innovation. As this cycle is embedded, it becomes business-as-usual, allowing organisations and teams to readily acquire the skills, develop the processes and adopt the technologies, that can accelerate and scale up innovation.

Through the adoption of the user-supplier collaboration model and by following the system reframing process - tipping points can be identified that trigger irreversible change. This creates a culture of innovation that sticks - making continuous innovation business as usual.



Paul Corcoran Managing Director



WHAT IS INNOVATION?

Innovation is a term that we hear more and more often as the pace of change around us accelerates - but what does it mean? And why does its meaning matter?

There are many definitions - the UK Innovation Strategy defines it as "the creation and application of new knowledge to improve the world." It highlights prosperity, productivity and wellbeing as important outcomes.

The National Endowment for Science Technology and the Arts applied a much broader interpretation, where: "Innovation is about change and the ability to manage change over time. Innovation can be about the successful exploitation of new ideas in the form of a new or improved product or service, but it can also be about the way in which a product or service is delivered. Equally, innovation can be about creatively positioning or marketing an existing product, or about changing a business model to a new 'paradigm, such as low-cost airlines."

This interpretation recognises the many different forms of innovation.

The Cambridge Dictionary uses the definition "a new idea or method, or the use of new ideas and methods" - and the Oxford Dictionary defines innovation as "the introduction of new things, ideas or ways of doing something." Both definitions focus on the concept of 'new'.

None of these definitions identify 'value creation' as the most important outcome of innovation. However, the link to creating value can be captured by a new definition:

"Innovation is turning ideas into sustainable value."

This definition of innovation matters. 'Newness' is not itself the goal. What matters is adding value in its broadest sense. Innovation must be framed as the means to create sustainable value.

Creating value from innovation does not always require new knowledge. Ideas that create value may simply evolve by connecting existing knowledge silos as a result of ad-hoc or unpredictable engagements that provide fresh insights and generate new ideas.

The reframing of the meaning of innovation is an innovation itself. It can be inspiring - it means that any one person, team or organisation can be innovative by turning their ideas into sustainable value for themselves, employers, suppliers, customers, shareholders and society.

"Many people who are full of ideas simply do not understand how an organisation must operate in order to get things done, especially dramatically new things. All too often, there is the peculiar underlying assumption that creativity automatically leads to actual innovation. In the crippled logic of this line of thinking, ideation (or creativity, if you emphasise the idea-producing aspect of that term) and innovation are treated as synonyms. This kind of thinking is a particular disease of advocates of "brainstorming," who often treat their approach as some sort of ultimate business liberator. Ideation and innovation are not synonyms. The former deals with the generation of ideas; the latter, with their implementation."

Theodore (Ted) Levitt



WHY IS INNOVATION IMPORTANT?

The process of innovation, turning ideas into sustainable value, can provide solutions to complex challenges where change is essential. This can happen at a team, business or industry level. Innovation is the means to improving outcomes, performance and productivity, and enabling culture change. Nations, industries and businesses must innovate to thrive and provide the solutions to some of the biggest challenges the world faces – economic growth, climate change, poverty and healthcare– but none of this is simple.

Why is this? Innovation is not 'an event' or a project - it is a continuous process. The complex challenge is creating the conditions where the process of continuous innovation becomes business-as-usual on a par with day-to-day management, reporting, procurement, IT support and, of course, delivery.

McKinsey has made the case for innovation - "What made a company successful historically may no longer be possible during or after the Covid-19 crisis. Customers may struggle to pay. Channels may have radically shifted to accommodate new needs or work around new constraints. A stable regulatory context may have changed, potentially creating opportunities that never existed before. The assumptions that supported years of stable, predictable growth may no longer be valid."

The Institute of Directors identified that in a world of change and competition, innovating is not a luxury, it is essential – "All businesses need to innovate, though it may take any number of forms, from the steady refinement of established products to the leap in the dark when an untried idea is launched. Whether introducing new technology, getting people to work in new ways or creating new products, you must innovate to survive".

And innovation attracts attention and investment – in 2019, the UK government's net expenditure on research and development was £13.1 billion with the UK private sector invested the largest sum at £25.9 billion, 67% of the UK total. Innovate UK has, since its inception, also invested over £2.2 billion in more than 11,000 projects that have generated up to £16 billion in Gross Value Added to the UK economy and 70,000 jobs.

"We cannot solve our problems with the same thinking we used when we created them."

Albert Einstein

"The value of an idea lies in the using of it."

Thomas Edison

"Don't be afraid to take big steps when one is indicated. You can't cross a chasm in two small jumps."

David Lloyd George

"What good is an idea if it remains an idea? Try. Experiment. Fail. Try again. Change the world."

Simon Sinek

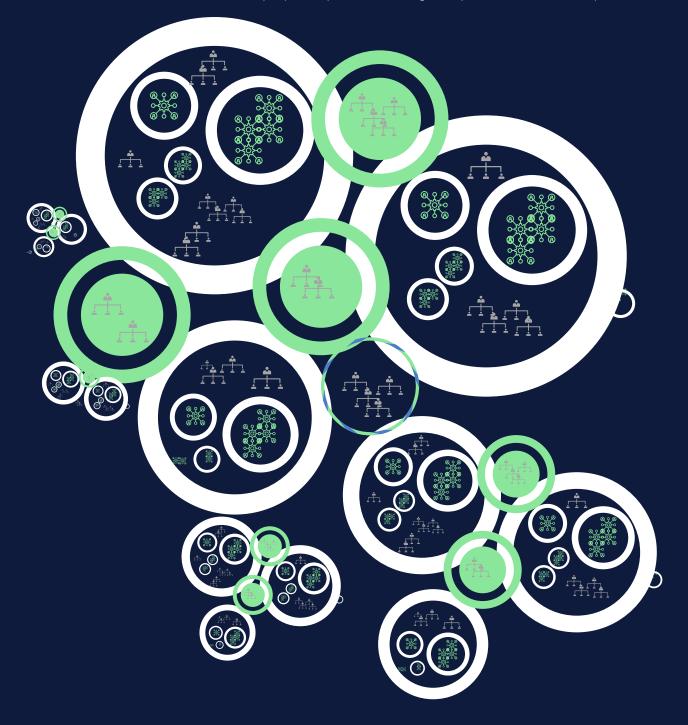
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INNOVATION IN COMPLEX SYSTEMS

Innovation is complex and that complexity exists at multiple levels – industries, businesses, teams and individuals. It endures within a network of users and supplier, each adopting different mixes of processes and technology and operating in different cultures and micro-cultures that vary across industries, businesses and teams.

The greatest influence comes from the system's actors - the people creating both the supply of ideas and the market demand for innovative solutions.

However, people's relationships, beliefs and motivations evolve within a culture – and culture is hard to change – it takes time. Industry logic, routines, behavioural norms, networks, power hierarchies and mixed incentives all play their part in creating complex innovation ecosystems.





INNOVATION AND TIPPING POINTS

Engagement between users and suppliers provides a model for accelerating and increasing innovation. But the challenge is much wider – whilst users bring different perspectives to those of suppliers, the diversity of thought in any engagement may still be limited. This often means that changes to accelerate and increase innovation do not stick. The momentum gained during the creation of new ideas is lost as the barriers that have constrained innovation in the past persist.

To ensure a systemic improvement of innovation outcomes requires 'System Reframing'.

Looking at the interaction of people, process, technology and culture and their role in innovation leads to an obvious conclusion:

Change that "sticks" needs tipping points

The pace and scale of innovation is the outcome of a complex system. The challenge is to increase the success rate of turning concepts and ideas into products and services of value in a system that is influenced by organisational, market, and external factors.

The demand to accelerate innovation can be created from both inside and outside an industry. Climate change and COVID-19 are examples of external tipping points that have spurred innovation to help society and the economy. The need for innovation at pace in these situations can then lead to further tipping points, with new ideas and solutions spilling over to address similar or related challenges. Embedding the turning of ideas into sustainable value to become business-as-usual provides a platform for success, even in the most difficult circumstances.

Adopting tipping points as the trigger for innovation that sticks also increases business resilience. Businesses that have a culture of innovation will more readily adapt to changes in their external environments - they know how to harness tipping points to create positive change that sticks.





SOCIETY

POLITICS



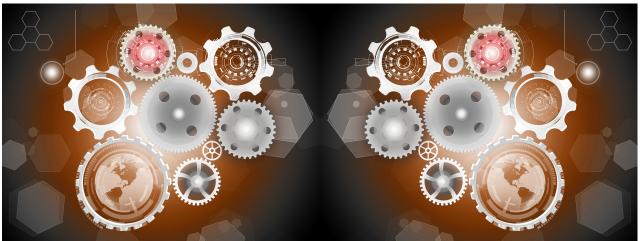
ECONOMY





TECHNOLOGY

INDUSTRY





CREATING INNOVATION TIPPING POINTS

In a complex system there is a high degree of interaction between people, process, technology and culture. For innovation to be successful, tipping points must be identified whereby small changes can become contagious and create market demand.

The law of the few - some people are effective at spreading an innovative idea, product or change in behaviour. Typically these people have wide networks and are known across diverse market sectors. They must be identified and engaged.

Stickiness – an idea needs to stick to have an impact and its stickiness can often be tweaked by changing its presentation and messaging. New perspectives and finding a shared purpose that delivers sustainable value will increase commitment. Then, reframing the situation will provide new insights about how different innovations can be made to stick.

Context - the timing and environment for delivering an idea or message can have a huge impact on its adoption and spread. Timed correctly, the idea or message can ignite an explosion of demand, new market behaviours and system change. Identifying a system's tipping point triggers will help identify the conditions to make irreversible change that sticks.

INNOVATION IN PRACTICE



• Changing manufacturing processes - Henry Ford's invention of the world's first moving assembly line and the acceleration of approval and testing of vaccine development processes to address the Covid-19 pandemic have both made irreversible changes to the ways of scaling up production and logistics.



 Disruptive technology - the consumer data revolution started with the introduction of online bookstores and MP3 players then progressed to smartphones, streaming video, cameras and social media platforms These have created new industries and irreversibly transformed society, the economy and politics.



 Cloud services - the demand for cloud-based services has created a vast network of remote servers around the globe, linked together as a single system to store and manage data and applications. Information, news and social media, along with other form of digital content, can be shared immediately with anyone, anywhere, at any time - and is now an irreversible everyday norm.



 Infrastructure resilience - the increased development of digital infrastructure twins, hosted in the cloud, that provide a virtual representation of complex systems, such as power generation and distribution, means climate resilience can be modelled using real-time data and simulation. This is providing new insights to inform decision-making. Digital twins are here to stay.

















CREATING TIPPING POINTS - SYSTEM REFRAMING

Microsoft's Business Model - Microsoft needed to change its business model to keep pace with its competitors. They moved from a model where their products used a standalone operating system with vertically integrated applications to a 'Software as a Service' (SasS) model, where their products were made available on competitor platforms. This business model innovation led to collaboration with Apple and Salesforce, direct competitors of Microsoft - the business has grown continuously since 2014.





Green Financing Incentives - Green financing is essential to raise revenue for projects which have positive environmental benefits and help tackle climate change. Both the private and public sector can raise money, either through eco-investing or through issuing climate bonds. The UK's first climate bond, issued in summer 2021, raised £10 billion. This finance is being used to fund green innovation projects including clean transportation and renewable energy. The EU has followed suit with a €13.8 billion green bond issue in October 2021.

Spotify – Spotify was formed in 2006 and launched in 2008, creating a new market for online music streaming. The initial goal was to create a product that would help to combat the issue of music piracy. Spotify operates a freemium subscription model for consumers and pays continuous royalties to artists per stream, rather than the traditional one-off payment per purchase. With 365 million monthly active users it is the largest online music streaming service and has transformed the music industry by creating a worldwide online market for artists to supply content to their followers.





Global Positioning Systems – The GPS satellite navigation system was developed by the US government for defence purposes during the Cold War. In the 1990s the US government made the technology available globally for civilian use, highlighting the innovation spillover potential from the defence sector. Since its commercialisation, GPS is now an integral part of a proliferation of B2B and B2C products, services and solutions that require accurate positioning data in agriculture, health, emergency services and transport logistics. The worldwide availability of GPS data has opened up global market opportunities.





ACCELERATING INNOVATION

Increase The Supply of Ideas

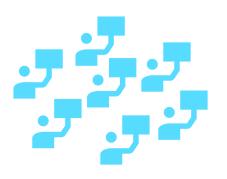


A key enabler to grow the supply of ideas is increasing interactions between people. The former National Endowment for Science, Technology and the Arts, stated:

"A precondition for innovation is what we call the 'serendipity of interaction' – the chance coming together of ideas and people to advance a new idea. It is this that sparks bright ideas while the testing and debating of those ideas, with organisations and their markets, helps turn them into useable shape. If innovation is to be maximised, whatever the chosen mix of supply-side policies, we have to be more self-conscious and deliberate about creating the circumstances for spontaneous interaction – and in particular, interaction with users."

These user-supplier interactions can be deliberately created and the likelihood of serendipitous informal engagement increased. Changing longstanding organisational routines and habits, customer engagement models and redesigning working environments are simple low-cost, or no-cost, interventions that can increases the supply of ideas to drive continuous innovation.

Increase Market Demand for Innovative Solutions



Without demand, there is no requirement for supply. Hence user-supplier engagement in some form is essential. When businesses interact with their customers, they develop a more in-depth understanding of their needs. Users often have hidden preferences that are not apparent in superficial day-to-day encounters. Market surveys can start the journey of identifying demand, but customers are often brought in too late in the process to have a meaningful impact.

By interacting with customers at the start of the innovation process, suppliers can better integrate market wants and needs into products, services and solutions.

Understanding customers' needs and the conditions that create demand at the outset of the innovation cycle also allows suppliers to identify the early adopters that can act as advocates to increase future uptake and the market demand for further innovations. Identifying and collaborating with early adopters makes it more likely they will share information, raising market awareness to and supporting future sales. These same networks can be leveraged for every new innovation.

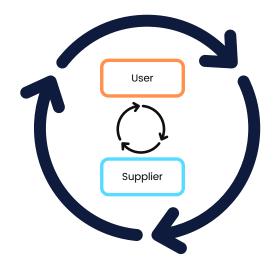


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COLLABORATIVE INNOVATION MODELS

One of the most effective models to accelerate innovation and increase adoption is user-supplier collaboration. It can generate and develop the new ideas that create sustainable value in products, services and continuous improvement – creating an interactive cycle of user-supplier innovation.

- Suppliers gain a competitive advantage from deep user engagement, acquiring information to drive innovation that solves real-world problems.
- Users play an increasing role in accelerating adoption, complementing their own innovationadoption activities, and benefitting from spillover innovations in supplier markets.



The realisation of innovation benefits are driven by its pace – for both the user, who acquires benefit, and for the supplier, who can acquire first-mover advantage in a large market.

Innovation spillover and contagion will inevitably happen in complex user-supplier networks

Over time, the profile of an idea, product or service increases – further amplifying the likelihood of

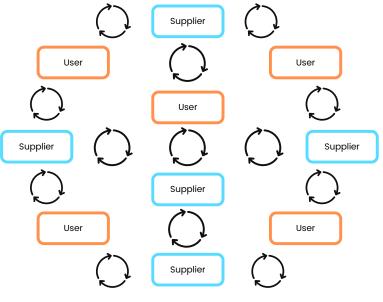
Former Apple CEO Steve Jobs said that if he had only listened to what customers thought they needed and wanted, the iPhone would never have been built. Instead, Apple turned an idea into a product that created explosive demand derived from latent and unknown customer wants and needs.

innovation spillover.

Apple's success led other suppliers to follow - the market growth and size has shown customers are willing to adopt groundbreaking innovations as awareness is raised by the user community and early adopters.

In a highly connected and complex industry, the cycle of innovation between users and manufacturers is not usually restricted to an exclusive 1-2-1 relationship.

If an opportunity is significant or shared evidence leads to shared understanding, related innovations begin to pop up and thinking becomes contagious – innovation spillover between networks of users and manufacturers is inevitable.





DISRUPTIVE INNOVATION - CREATING DEMAND

By increasing interactions with users, suppliers have more opportunities to educate them about their innovations. It is often not enough for a business to reveal their latest innovation and expect there to be immediate user-demand based on its functionality and application. The minimum requirement begins with creating a narrative about its value to users. Adoption can be driven by reframing this narrative about more than just user benefits - if a solution is presented as solving a societal problem such as climate change, whether directly or indirectly, demand may increase.

Supplier-led innovation often involves firms innovating in-house, without input from users. It can enable firms to disrupt and create new markets and gain an advantage over competitors. These "quantum leaps" are more likely to radically alter the landscape of an industry.

Suppliers have to focus not only on innovation itself, but on how users and suppliers will adapt to it. Supplier-led innovation will nearly always be disruptive. To create demand, whether entirely new or latent, suppliers need the following:

- A coherent value network with upstream and downstream partners who may also benefit from successful disruption based on aligned, but distinct, incentives, specific to the role each partner plays in the value network.
- Openness to failure where the supplier's shareholders, and partners do not punish failure, enabling suppliers to take reasonable risks. Some ventures will succeed, others will fail.
- Clear messaging communication with partners to explain, and at the same time discover, the benefits of adoption. This learning, in turn, creates the opportunity to inform future development of an even more compelling narrative.
- A value proposition setting out the value to each partner, the industry, the economy and society. Premiums and subsidies can be used to strengthen the value proposition once a minimum viable product, service or solution is available.





DIVERSE THINKING AND INNOVATION

Innovation in complex systems requires diversity of thought from the outset. Creating an environment that promotes different thinking will increase the breadth of ideas and, as such, the opportunities to create value. Reframing culture to promote diverse thinking can lead to more "moments that matter" and provide the spark for innovation.

It is important there is diversity of thought throughout the whole innovation process, from concept development and design through to implementation. This can be achieved by bringing in different people at the different stages of the system or product lifecycle – from suppliers, the customer and other actors in the system. This will bring new perspectives on value and the user experience.



"Almost all tech innovations connect disparate ideas, minds, concepts, technologies, data-sets and more. This pattern applies to Facebook (which connected an existing web infrastructure with technology enabling people to build digital networks and share media) and Instagram (which linked Facebook's most basic concepts with a smartphone application complete with the capacity to modify a photo with digital filters) and beyond." - Rebel Ideas. Matthew Syed



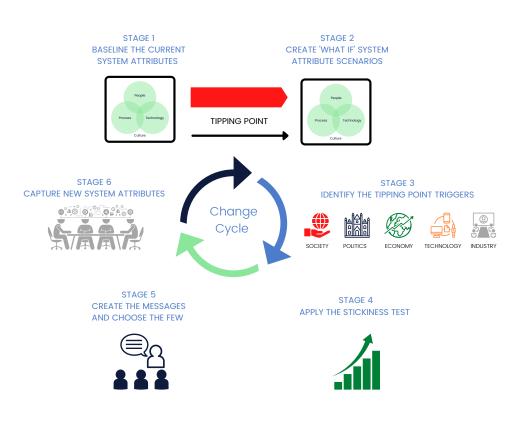
MAKING IT HAPPEN - REFRAMING INNOVATION

The deliberate creation of innovation tipping points involves a continuous cycle of 'Innovation System Reframing' – baselining the current innovation system attributes and creating what-if scenarios using new system attributes. Through reframing, future tipping points can be identified and applied to trigger the irreversible changes that can stick, increasing the level of innovation. A market narrative, with compelling messages, communicated by key influencers, such as a first customer or early adopters, can increase demand, which changes the system attributes. The innovation beds in and so the virtuous circle of innovation continues.

In practice, this means creating tipping points that increase the supply of ideas at the same time as increasing the demand for innovative solutions. Matching supply with demand establishes an environment where those ideas that add most value are identified, developed, refined and tested based on proven user need.

In some cases, market demand may be latent or, if the innovation creates its own market, initially non-existent. This can lead to breakthroughs that disrupt existing user-supplier relationships and expectations. Users become informed and exposed to what is possible. The user-supplier innovation reframing process then breaks the constraints of industry 'group-think' and provides the opportunity for truly disruptive innovation. The use of Artificial Intelligence (AI) to solve user problems does not need the user to be an AI expert - but AI suppliers can help educate and inform users about the types of problems AI can solve. This, in turn, can trigger new supplier insights and more user-demand. Once again, the virtuous circle of innovation continues.

As the system reframing process starts again, businesses and teams continue to innovate and innovation itself becomes business-as-usual. The challenge is - how do you create deliberate tipping point triggers that increase output from an innovation system so it can continuously turn ideas into sustainable value?



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SUMMARY

Organisations and teams need to innovate to succeed. The world is constantly changing, so innovation must become 'business as usual', and innovation must be an integral part of every business model. However, innovation must have a purpose – innovation for innovation's sake will not guarantee success. So what is innovation?

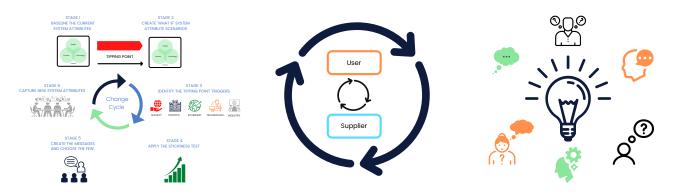
Innovation is turning ideas into sustainable value.

Increasing and accelerating innovation creates greater sustainable value. To achieve this, there is a need to increase the supply of ideas and, at the same time, ensure that this supply is matched by the market demand for innovative solutions. These conditions can be created through system reframing to help identify the tipping point triggers that make positive change stick.

People are an integral part of what can be described as a complex 'Innovation System', which also includes processes, technology and culture. Ideas come from people and they have the ability to enact change, but the environment has to be conducive. If the culture is right, innovators and change-makers can thrive.

Diversity of thought is a key part of the mix. This can come in several forms, but user-supplier engagement has been proven to be effective in sharing and developing ideas that create uservalue. User collaboration increases diverse thinking, as does bringing people from outside the sector, organisation or team to work alongside industry and business subject matter experts.

Changing organisation and team culture can unleash, constrain, or throttle innovation. An organisation's habits, communication styles, rituals and risk appetite all play a role in defining 'the way innovation works'. So, logically, changing organisational habits, communication styles, rituals and risk appetite will change the culture and 'change the way innovation works'. Ultimately, this means people need to think and act differently.



The link between innovation and culture is strong - what people choose to do on a day-to-day basis and the way they do it has a significant impact on both the creation of ideas and, through collaboration, the creation of demand.

Embedding change means people must do things differently, not just once but continually. Making this type of irreversible change is not easy and can only be achieved by triggering tipping points that permanently change the innovation system.



Additional Information

Tipping points can help make transformational change in your industry, business and teams

Do you need to accelerate and increase innovation?

Do you want to make change that sticks?

Do you know your tipping points?

Would you like to find out more?

Interimconsult can help you address the challenge of innovation at an industry, business and team level.

We can also help accelerate the pace and success of change that sticks and would be delighted to hear from you so please contact: paul@interimconsult.co.uk

This paper references some of the content of the UK Government's Innovation Strategy that can be found <u>here</u>. It is complemented by work on complexity theory, the concept of tipping points and innovation. This paper was written by Paul Corcoran and David Bagshaw.

Further Reading and References

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