

# Tenshi

## Explaining Open Innovation Challenges

*Why they can work for you*



### Abstract

In recent years, there has been an explosion of different techniques companies are adopting to 'innovate'. It's the weapon of choice for businesses, trying to increase value, defend their market share, distinguish their brand and generate growth. However, in the midst of this explosion it has become clear that some models, ideas and theories work better than others.

Innovation is about figuring out new solutions, it means exploring lots of routes, quickly. It works best with lots of input, from lots of sources. The more options explored however the higher the rate of failure. Therefore, the cost of development and speed to 'write off' need to be kept low and fast, with managed risk, to achieve the best overall value outcome. This really is what any innovation strategy should be based on.

In this paper, we've put together our findings from the past number of years and will refer to our work across **Lloyd's Register, Amey, Innovate UK and Staffordshire County Council**, to give applicable examples of successful open innovation.

We will share key insights and methods that really deliver, when running open innovation programmes. What will become clear when reading this paper, is that the Challenge model of innovation is our model of choice, over any other. Our breadth of experience in this arena and our key findings will hopefully demonstrate its value to you, too. Simply put, running an open innovation challenge is highly effective in supporting and fostering a culture of innovation. Open innovation challenges are effective because people respond well to a challenge where they feel they can win.

Setting a challenge directs thinking, it sets a clear goal to focus on and applicants are creating a solution for which the market has a definite need. Their prospective 'client' has presented a challenge, and the start-up potentially has the solution.

## What is Open innovation?

Open innovation is, simply put, the act of looking outside internal research and development departments. It is used to source novel and forward-thinking ideas and solutions, to solve an existing problem or to develop new products for an organisation.

It may take the form of something as simple as an ideas bank or include more structured strategies such as the development of a data repository, or a full-scale accelerator programme.

**Open innovation can be split into three main focus areas:**

- **Incentivised ideation** - encouraging external parties to input on problems and providing rewards for this input. This can take the form of competitions, challenge-based contests and prize led accelerators, which you'll be hearing a lot about in this paper.
- **Innovation clustering** - bringing together small, agile companies to encourage innovation through hackathons or incubators, or a wider and more structured ecosystem programme.
- **Data and software platforms** - products which help to facilitate the innovation process such as APIs, data access platforms or partially completed products, which are easily accessible by external parties to be able to use and manipulate.

Open innovation can be run independently of the current innovation policies of an organisation, or as a small project stream that is 'bolted on' to large scale existing projects or workstreams. It can also be one of the founding values of innovation research and development.

They are answering a clear call, de-risking the outcome for both. This incentivised call to action, makes the method so effective and by opening up applications, leads to many different solutions being presented in a short space of time.

## Key to Getting it Right

Open Innovation Challenges can be a daunting undertaking for some, particularly for those who have not utilised this method previously. The entire process is outside of the routine workflow for many, some would simply wish to stick to methods that have been around for much longer but are perhaps far less effective.

One could argue that the link between process coordination and implementation costs and the ROI might not always be clear from the outset, when considering Open Innovation as a viable solution, independently.

However, expert innovation consultants must be called upon to manage these Open Innovation challenges, as their expertise will successfully guide the programme, the budget, the stakeholders, the research, achieving optimum results.

This removes any unnecessary daunting preconceptions. What's left is an expertly-executed challenge-led open innovation strategy, resulting in a tangible business solution.

If one is to seriously consider undertaking a successful Open Innovation challenge, they have to commit to a strong dependence on external knowledge. They must put their faith in the flexibility, creativity, and strategic power of the programme, to understand its true value and achieve their desired results.

## Let's discuss some of the benefits

Open innovation challenges save money and reduce time to market, by tapping into research and development done by others and giving you access to innovation that is ready for commercialisation.



The biggest advantage of an open innovation programme is in accruing a wealth of innovation and knowledge from potential SME partners. This partnership is advantageous for both parties; SMEs gain valuable client engagement and connections and the larger organisation benefits from the original solutions and agile workstyle of SMEs.

On a wider scale, they help to build sector ecosystems and business communities and connecting businesses together in working towards shared goals. Furthermore, open data platforms also encourage innovation beyond the data owner's initial challenge, providing fertile territory for more ideas.

They can also help to strengthen the industry as a whole, by improving technical excellence and digital innovation across the board. Opening the industry up to new ideas and technologies from disruptive SMEs helps to secure its future.

One of the benefits for SMEs when working in a challenge-led procurement trial, is the quick turnaround time between idea and invoice. This is based on SMEs business requirements; generating income and aligning with customers. If this is delivered, then commercialisation is reached a lot quicker.

We love to help our clients find and solve their innovation challenges and have run open innovation challenges for over 40 organisations, applying our comprehensive methodology to deliver successful solutions

## The key players in Open Innovation acceleration

The key to open innovation is bringing together multiple parties to work towards a single goal. In order to maximise the success of a project, it is essential to think about how each of the following stakeholders can engage with the process.

- **Leadership** - when embarking on an open innovation project, the full support of the management and leadership within the organisation is key to ensuring the project has the support and resources it needs to succeed.
- **Internal teams** - internal staff are invaluable in moving the innovation process forward. They can support SMEs coming in to work on a project with their existing expertise and facilitate overcoming any barriers which occur.
- **Corporate partners and suppliers** - linking your existing corporate suppliers with SME partners can be hugely beneficial, in ensuring a successful outcome to a project. It will ensure any practical barriers are identified at an early stage and a collaborative solution can be found.
- **Public sector organisations** - public sector organisations often have a wealth of resources available, which can aid open innovation. This can include open data from local councils, or public funded organisations, or specific innovation aid given by bodies such as Innovate UK.

## So, how does it really work?

### Setting Challenges

Challenge setting involves the ability to create a clear understanding of the need, whilst opening up the variety of potential solutions, particularly the unexpected and unknown, as these will offer the greatest leap forward.

Challenge setting therefore is very important. But not an easy task, as Chekhov wrote:

## CASE STUDY

### The client

Lloyd's Register

### The challenge

LR wanted to encourage the adoption of digital technology in heavy industries, where innovation is relatively untapped and industry safety is of concern.

### The solution

We collaborated with LR to design, setup and run the Lloyd's Register Safety Accelerator. The programme de-risks innovation, by bringing large corporate companies together with high-potential technology startups to collaborate in trialling and deploying cutting-edge safetytech solutions in live industry environments, through managed pilots.

We engaged LR's clients in the programme through workshops, events and direct outreach, generating commercial opportunities.

We ran workshops and events globally, as well as Dragon's Den-style physical and virtual pitch days, generating press and social media coverage.

### Outcomes

We built and maintained a vibrant innovation ecosystem of corporates, startups, research bodies and investors around Safetytech.

We established LR as a thought-leader and deal maker in this budding ecosystem.

Ongoing pilots have been hugely successful, with solutions being considered for commercialisation.

Programme engagement metrics: 9 Corporate partners engaged to date, 400 startups engaged, 7 Trials awarded.

“...but you confuse two different things: solving the problem and correctly posing the question.”

(Letter to A.S Suvorin Oct. 27, 1888).

One cannot be prescriptive. There is a great significance placed on the articulation of the challenges, they need to be attractively descriptive, to awaken the interest of groundbreaking and globally leading companies. A broad knowledge of technological advancement across multiple sectors is critical, in order to compose 'must read' and 'must apply' challenges.

Part of the benefit of setting a challenge is that it can steer progress into areas that may not initially seem as lucrative, or interesting, or even apparent. So, when thinking about how to bring about innovation to areas that are usually overlooked, the challenge-led approach can steer innovation into these areas and lay the foundations of an SME network, which can then be connected to corporate and academic partnerships.

On average, our digital SME Challenge programme - IC tomorrow (Innovate UK) delivered per year: 6-8 themed contests, each having 4-6 Challenges, and had on average between 150 to 300 applications per Challenge.

This established and engaged with a pool of pre-vetted, relevant SME's and start-ups in excess of 6,000.

Challenges give something for businesses to aim for and can be targeted to the right areas. A challenge can create networks and the more challenges that are set in a specific area, the larger the network grows, so too the number of innovative solutions.

### Defining appropriate challenges

Defining the right challenge is often the biggest hurdle when implementing open innovation. You need to frame your challenge

in a way that is easy to understand by external parties, these can often be companies who do not work in your sector.

It can be difficult to see past internal barriers and traditional ideas, so challenges can become limiting and fail to get to the heart of a problem.

We have extensive experience in helping companies to overcome these issues, expertly defining and outlining a challenge, which will deliver truly innovative solutions.

### **Engaging relevant companies**

Once you have defined the right challenge, the next step is to ensure you are engaging the right companies to respond to it. The best innovation comes from cross-sector collaborations, bringing the expertise of a different industry together with your own. We help you identify the key skills needed to meet your challenge and target relevant tech communities, capable of bringing these skills to your business.

### **Identifying the most viable concepts**

It can be challenging working with technology outside your domain, it's difficult to identify which ideas and concepts are viable and have potential to bring value to your business. By pairing our expertise in digital technology with your deep understanding of the sector you operate in, we can help find the right companies to work with, to solve your innovation challenge.

### **Facilitating trials**

Once you have found the right start up, we will help you to collaborate and work in tandem with the technology company, to run a pre-commercial trial. This will allow both of you to test out technology, business models and new working relationships in a low risk environment, before moving on to a more commercial relationship.

## **CASE STUDY**

### **The client**

Amey, the largest infrastructure services company in the UK.

### **The challenge**

Amey's clients were demanding more efficient services and reduced costs, in response to public spending cuts.

### **The solution**

We began with an audit of Amey's existing services, with more than 40 opportunities to optimise services emerging. The extensive audit allowed us to identify the particular services that would benefit from data-led innovation. We then ran a series of open innovation challenges, reaching out to Amey's relevant stakeholders for their expertise and guidance, from key suppliers to internal staff. We reached out to the tech startup and SME community, to discover the latest trends in cutting edge digital innovation.

Armed with our audit results and collated data from relevant Amey stakeholders, we worked on building a strategic solution, broken down into applicable processes and skills. This would ensure that Amey, and their internal stakeholders, could sustain the innovation programme independently in the long term.

### **Outcomes**

Our audit of Amey's services and our successful Open Innovation challenges meant invaluable stakeholder insight for Amey.

Off the back of this, Amey formed a 'Smart Data and Technology' department, which continues to deliver digital innovation, driving cost and efficiency savings. This has now been integrated into their CSR policy.

They went on to run successful SME trials with two of their clients, onboarding innovative tech companies we had sourced.

Our solution built sustainable internal processes and skills for Amey and their staff.

## CASE STUDY

### The client

Staffordshire City Council

### The challenge

In Staffordshire, traffic congestion was a problem. Communicating detours, maintenance or relevant changes to residents was also challenging.

### The solution

After an extensive research phase, we collaborated closely with the Council and their infrastructure service managers to draft a viable brief. We then ran a challenge-led open innovation trial, 'Dare to Solve', seeking digital solutions to increase citizen awareness and knowledge about ongoing roadworks. We reached out to UK and EU based companies to apply and submit their innovative solutions, capable of solving the challenge. We selected the winning startup based on strict pre-defined criteria, which was dictated by both the client and the research data. The eventual winner was Beepz.me and their 'Roadzwork' solution.

### Outcomes

Beepz.me successfully trialled their solution 'Roadzwork' on the road networks in Staffordshire.

Due to the success of the Staffordshire pilot, the solution is now being rolled out across the UK.

'Roadzwork' users can add their daily routes to the app, along with their usual travel times. A push notification will notify users of any potential delays to their travel journeys.

Users are aware of the congestion levels and are offered alternative routes.

Our solution sourced an applicable and invaluable innovation for the Council.

This method of innovation produces highly successful results as it plays to the strengths of both parties and allows them to co-create a solution. For the start-ups, the expertise and guidance of established sector leaders can be instrumental in building a successful product. For a larger more established organisation, this process allows you to help shape product development and the trial provides a low risk way of trying out new ideas. Working with a start-up and learning from the way in which they work, can also enrich internal innovation initiatives.

Open innovation challenges are the modern alternative to traditional procurement and mean that you don't just find a serviceable solution, but the best solution possible.

### Conclusion

We have demonstrated through our work with Amey, Lloyd's Register, Innovate UK and Staffordshire City Council, that Open Innovation challenges bring about real, tangible results. As each of our case studies have outlined, Open Innovation challenge-led solutions met the brief set by each of our clients, allowing them the opportunity to innovate.

This Paper has attested to the act of applying a programme of open innovation, using the challenge led approach, to futureproof innovation processes and new products or services for an organisation.

The programme can provide significant benefits, both for the development of internal policies and skills and to ensure the organisation is leading the way forward, within its sector. Similarly, the challenge-led innovation model can positively change the mindset and processes of staff and stakeholders alike.

Setting a challenge, and creating a strategic challenge brief, creates a clear call to action that only the most suitable technologists will answer. It is an entirely incentivized,

motivational process and only those with drive, determination and the most viable solution will apply.

To achieve true innovation, participants will need to entirely trust in the process. Many factors bring about true innovation. In this Paper, we have proven that our innovation expertise and knowledge of digital technologies, teamed with an organisation's deep understanding of the sector they operate in, ensures a successfully executed Open Innovation strategy.

*We hope you've found this guide useful*

## **Tenshi de-risks innovation and helps you achieve higher volume and value results**

We work with you to deliver innovation management in your organisation, from idea generation through to commercialising external collaborations and stimulating deal flow. We encourage and facilitate curiosity and creative thinking within organisations, helping our clients become better equipped to articulate and tackle the innovation challenges they face and sell innovation to customers.

We encourage, facilitate and embed challenge-led processes within organisations. Our collaborative approach fosters strategic and successful innovation process management, with long term commercial value. We place you at the heart of your sector's eco-system, giving you a focused and responsive network of support, delivering powerful, resilient partnerships.

**We Deliver:**

**The Right Culture** - establishing a deep desire to innovate throughout the organisation

**The Right Process** - embedding a flexible and dynamic 'assembly line' of innovation, from idea to invoice

**The Right Partners** - securing the centre position, in the sector's ecosystem to best leverage external resources



**Brave, Inspiring, Resourceful**

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