IoD CENTRE FOR CORPORATE GOVERNANCE

Public Inquiry: Governance and Innovation

Report of findings

November 2022

This report was produced by the IoD Centre for Corporate Governance with the support of Morrow Sodali and Board Intelligence.

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Introduction

Innovation is essential for value creation, both for individual companies and for the UK economy as a whole. The development and diffusion of new processes and technologies is a significant driver of economic growth and productivity, and will be crucial to meeting some of the challenges that face us such as the transition to Net Zero.

There are many different factors that affect whether and how organisations innovate, not all of which are within their control. However, unless companies are governed in a way that is conducive to innovation, they are less likely to be in a position to take advantage of the opportunities and cope with the challenges that lie ahead.

That is why the the IoD Centre for Corporate Governance has undertaken an inquiry exploring the link between governance and innovation. The inquiry was launched in June this year with a call for evidence.

Since then the Centre has spoken to many directors and senior managers from companies of all sizes as well as investors, advisors and academics; surveyed over 700 IoD members; and engaged an independent researcher to analyse the corporate governance characteristics of a selection of innovative UK companies.

This report identifies specific governance factors that can potentially influence companies' willingness and ability to innovate. While the exact manner in which they impact will differ according to each company's circumstances, for example its size and structure, they are relevant to all companies.

The report also includes observations on governance issues relating to collaboration and partnering and the impact of ownership, regulation and public policy, issues that were raised regularly during the course of the inquiry.

This report is not the only output from the inquiry. The Centre is developing guidance for board members on how they might apply the findings in this report in their own companies, which will be published in the first quarter of 2023.

The Centre would like to thank everyone who has participated in the inquiry in interviews and meetings, by responding to the call for evidence, and by taking part in the survey of IoD members. All of your contributions have been invaluable.

We would particularly like to thank Dr Jenny Simnett, who carried out the desk research, and our partners at Morrow Sodali, who generously sponsored that research, and Board Intelligence who conducted many of the interviews on the Centre's behalf.

Executive summary

The innovative activities of companies can be broadly classified as either breakthrough innovation - activities that lead to the development of products, services or processes that are entirely new to the market - or incremental innovation, which is new to the company.

The UK has a good track record for initiating breakthrough innovation but is much less successful in capitalising on that activity. In addition, relatively few companies undertake incremental innovation.

There are many factors that will influence a company's ability and willingness to innovate, such as access to capital, skills and support. The presence or absence of those resources, however, does not on its own explain why some companies succeed in being innovative and others do not. In this Inquiry we have tested out the proposition that the way a company is governed must have some impact on its ability to innovate.

The impact of governance in relation to innovation can vary depending on a company's size and the stage it has reached in its life cycle. For some start-ups and SMEs the absence of governance may be a barrier, while for larger and more established companies the problem may be that governance is overly focused on compliance and risk avoidance.

In this report we identify four characteristics that appear to be common to successfully innovative companies of all sizes and sectors.

Characteristics of innovative companies

1. There is a board level appreciation of the relevance of innovation to the company's strategy and business model;
2. Innovation is undertaken in order to achieve identified objectives or outcomes;
3. Innovation is appropriately integrated into the company's processes and activities; and
4. There is a culture that encourages innovation.

Relevant governance factors

The choice of governance policies and structures can help to establish and underpin these characteristics, and boards should consider the impact on innovation when designing the company's detailed governance arrangements.

The most relevant factors include:

- Having a clear purpose and values;
- Board composition;
- How responsibilities for innovation are allocated;
- The frequency and nature of board discussion;
- The information and metrics used to inform the board's decision-making;
- Organisational structure and ways of working; and
- The use made of rewards and incentives.

Collaboration

Collaboration is increasingly seen as an important source of innovation. The potential benefits include bringing together different skills, perspectives and resources and reducing cost barriers. As for individual companies, the governance arrangements for partnerships and networks can either support or impede their effectiveness depending on how they are designed and implemented.

Ownership

A company's ownership is an important influence on its ability to innovate. We have heard familiar concerns that a shortage of patient capital and a perceived short-termism on the part of some investors are barriers to innovation. Where possible, companies should aim to ensure there is an alignment of interest between their ambitions, time horizons and values and those of their existing and potential owners.

Public policy and regulation

There is a widespread view that the impact on innovation is not adequately considered by policymakers and regulators. This view is shared by the Regulatory Horizons Council, an independent expert committee set up by the Government. In its report published in June, the Council made many recommendations to redress the balance. The Government and regulators are encouraged to implement them as soon as possible.

There is also a view that the cumulative effect of regulation on boards has had two indirect adverse impacts on innovation, at least for larger and heavily regulated companies. The first is that some boards spend a disproportionate amount of their time dealing with compliance issues at the expense of discussing strategy and innovation. The second is that it influences the selection of new board members, favouring those who may be risk averse by nature.

What is innovation and why does it matter?

The definition of innovation

The innovative activities of companies are sometimes classified by their impact.

Activities that lead to the development of products, services or processes that are entirely new to the market are referred to as breakthrough or radical innovation. This type of innovation can potentially impact on many companies, directly or indirectly.

A relatively small number of companies will be responsible for breakthrough innovation. More commonly, they will introduce products or processes that are new to the company but not necessarily new to the market – known as incremental innovation.

Both types of innovative activity are important.

Breakthrough innovation can be a significant driver of economic growth. Companies that are capable of producing such innovations, including new entrants, need to be supported and barriers to their ability to do so removed where possible.

While the impact of breakthrough innovation on the economy as a whole is beneficial, the impact on existing companies may not always be positive. For example, some will face new competitors and in extreme cases may find that their business models have been rendered obsolete – this is sometimes known as 'disruptive innovation'.

On the other hand, many existing companies may be able to adopt or adapt breakthrough innovation to enhance their own competitiveness as part of their own programme of incremental innovation. This in turn brings further benefits to the economy as well as the company. Technology diffusion has been identified as a significant contributor to the difference between GDP per capita across countries[1].

For these reasons, all companies should be considering how they can be innovative in their own terms, whether that takes the form of breakthrough or incremental innovation.

1 'Evidence for the UK Innovation Strategy'; Department for Business, Energy and Industrial Strategy (BEIS); October 2021

The innovation performance of UK business

The UK's track record as regards business innovation is mixed. Some sectors and companies compare well with their peers in other countries, but others lag behind. Investment in R&D as a share of GDP is lower than the OECD average, while the proportion of UK businesses defined as 'innovation active' has declined since 2014[2].

The UK has a good track record for initiating breakthrough innovation, with a thriving start-up community, but is less successful in capitalising on that activity. Many start-ups and small businesses struggle to scale up and reach their full potential. For example, between 2015-2019, technology scale-ups in the US raised ten times as much capital as the UK while Chinese scale-ups raised four times as much[3].

The evidence also shows that relatively few companies undertake incremental innovation. In the three years to 2021, only 19% of UK SMEs had introduced new or improved business processes. In the same period only 14% had introduced new or improved products while 26% of them had introduced new or improved services[4].

All of these figures are lower than for their counterparts in Europe where, for example, over 40% of SMEs had introduced new or improved business processes[5].

Governance and innovation

There is clearly room for improvement in respect of both breakthrough and incremental innovation by companies in the UK, and it is for that reason that this review has looked at the relevance of governance to both types of innovation and for all companies.

There are many factors that will influence a company's ability and willingness to innovate, foremost amongst them access to capital, skills and support.

The presence or absence of those resources, however, does not on its own explain why some companies succeed in being innovative and others do not. In this inquiry we have tested out the proposition that the way in which a company is governed must have some impact on its ability to innovate.

More details of how the Inquiry was conducted can be found in the Appendix.

2 'Evidence for the UK Innovation Strategy'; BEIS; October 2021

3 'UK Tech Competitiveness Study'; Department for Digital, Culture, Media and Sport (DCMS); May 2021

4 'Longitudinal Small Business Survey – UK, 2021'; BEIS; August 2022

5 'European Innovation Scoreboard 2022: Annex B – Performance per indicator'; European Commission; 2022

The relationship between goverance and innovation

Some of the governance factors that we studied during the Inquiry appear to be relevant to innovation for all companies. However, the nature of their impact on innovation, and the potential each has to be either an enabler or a barrier, can vary depending on a company's circumstances.

This is not surprising when looking at companies ranging from start-ups and SMEs to large multinationals, and at companies attempting to develop breakthrough innovation as well as those that are just aiming to be innovative in their own terms. Every company is different in terms of the role played by innovation and the risks posed by poor governance.

To over-simplify greatly, for some start-ups and SMEs the absence of governance may be a barrier while for large, established companies the problem may be an excess of governance (or at least a form of governance that is overly focused on compliance).

Start-ups will often have plenty of ideas, enthusiasm and knowledge about the industry or technology in which they wish to operate, but may lack the skills, processes and internal challenge that will enable them to grow.

For large and more mature companies, a shortage of formal structure and processes is not usually going to be an issue. But it may be that the board lacks exactly the enthusiasm and relevant knowledge that start-ups have in abundance, and is more focused on managing the company's legacy activities than bringing about change.

The potential impact of governance on a company's ability to become or remain innovative will change at different points in its life cycle. As companies grow, governance structures tend to as well.

In addition, the attitude of providers of capital and the extent of regulation will have a greater influence on those arrangements and in turn on the company's ability to innovate.

Governance is also relevant to a company's ability to innovate in response to changes in its circumstances, for example the arrival of new, more innovative competitors or the sort of disruption to their business models they have experienced first with the pandemic and now the current energy crisis.

In all cases, well-designed governance arrangements tailored to the company's needs can help to plug any gaps, redress any imbalances and ensure it has the flexibility to respond to changes in its circumstances.

Characteristics of successfully innovative companies

In the next section of the report we discuss the particular governance factors that appear to have a bearing on a company's ability and willingness to innovate. All have the potential to be an enabler or a barrier; which it is will depend on the extent to which characteristics associated with successful innovation are considered by the company when designing its governance arrangements.

During the course of the inquiry, we identified four characteristics that appear to be common to many successfully innovative companies:

1. There is a board level appreciation of the relevance of innovation to the company's strategy and business model;
2. Innovation activity is objective- or outcome-based;
3. Innovation is appropriately integrated into the company's processes and activities; and
4. There is a culture that encourages innovation.

Appreciating the relevance of innovation

If the board does not appreciate the potential contribution that innovation can make and how it is relevant to the company's business model, then innovation is less likely to be seen as an integral part of its strategy and values. In turn, it is also less likely to be given sufficient priority when the board takes decisions, for example about the company's future direction, its risk appetite and the allocation of resources.

The composition and balance of the board, and the expertise and mindset of individual board members, is clearly an important factor.

If the board lacks the inherent capability toappreciate the part that innovation might play, or to understand when the company needs to respond to developments such as new technologies or competitors, it will be an uphill struggle.

It is also important that the board allocates adequate time to discussing and monitoring innovation - without falling into the trap of micromanagement - and receives appropriate support and information. These are practical issues but ones that we were told that many boards struggle with.

Innovation competences

Previous research[6] has identified three 'board strategic innovation competences' which help to illustrate the characteristics of innovative boards. These are:

Sensing - Searching for and developing new insights into the company's external environment;

Pivoting - Challenging the company's current formulation of its purpose, value creation, structure, culture, and strategy to identify future opportunities and challenges; and

Aligning - Agile decision-making and allocating resources and assets to turn the pivots into reality.

6 'Innovation and Corporate Renewal also disrupt boards'; Liselotte Engstam, Ludo van der Heyden, Mats Magnusson and Magnus Karlsson; June 2019

Objective - or outcome-based innovation

Innovation should be seen as a means to an end. This may seem self-evident, but we have learnt during this Inquiry is that this is not always understood, in particular by some start-ups and smaller companies.

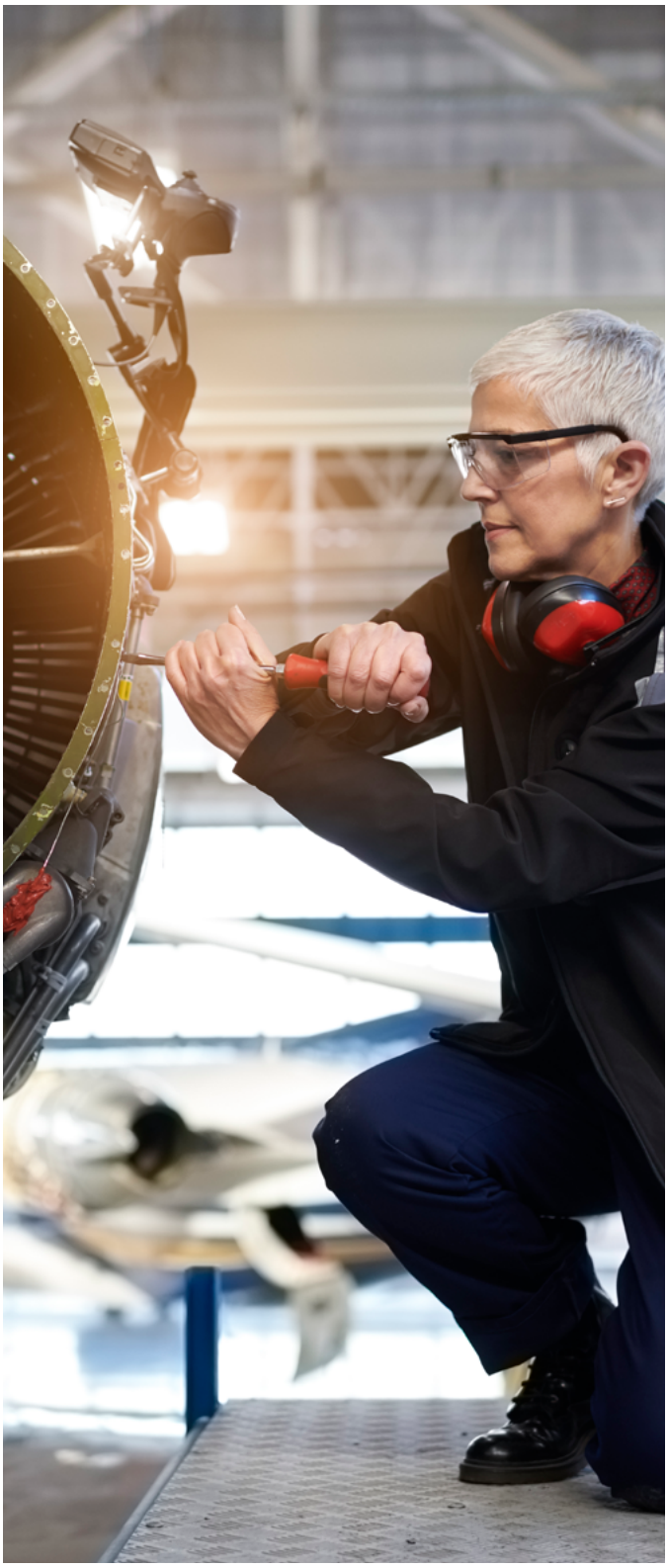
In the view of one of our interviewees, "entrepreneurs often mistakenly think that if the technology is good then the innovation takes care of itself". As the UK's mixed record in commercialising breakthrough innovation and technology might suggest, this cannot be taken for granted.

Technology and ideas are invaluable inputs, but it is the outcomes that determine whether the innovation has been successful. Companies therefore need to have a clear idea of what objective innovation is intended to achieve and how they will measure whether it is doing so.

It may be that the board has identified a gap in the market or an unmet customer need that it believes can be met through new or improved products or services, for example, or that it is simply seeking to meet its existing objectives in a more efficient way.

Or it may be that the company needs to make more fundamental changes to compete with disruptive new competitors, or to respond to a crisis – for example, the Covid-19 pandemic has prompted a lot of innovation.

Alternatively, it may not be for a commercial objective but a social or ethical one, perhaps linked to the company's values. Whatever the purpose, the board needs to set out clear objectives in order to channel their innovation in the right direction.



This is not to suggest that companies should be discouraged from undertaking speculative innovation that does not have a specific outcome in mind, or from collaborating with or supporting others that are doing so. This is an essential part of the overall ecosystem for innovation, and has led to many important breakthroughs.

However, without a defined end objective in mind it is harder for companies to assess which if any such activities to undertake or support. The absence of a clear objective and end point may also make it harder to attract external investment.

As well as setting the objectives, boards also need to be clear about the extent and nature of the financial and other risks to which they are willing to be exposed. Having safety nets in place – for example expenditure limits, regular reviews and clear policies relating to any ethical considerations - can provide a degree of reassurance that those risks can be at least mitigated.

Appropriately integrated innovation

Integrating innovation is crucial to its effective implementation and delivery, and therefore the achievement of the desired objective or outcome. As one of our interviewees put it, “there is no use the innovation department being innovative if other departments won’t work to put these ideas in place”.

For smaller companies with a simple structure integrating innovation may be relatively straightforward, but it can become more of an issue as companies and the scale and scope of their activities increase.

The approach to integration may depend on the type of innovation activity involved. For example, incremental innovations can potentially originate anywhere in the company and may be achieved without the need to change existing structures. By contrast, where breakthrough innovation is concerned there can be an argument for ring-fencing those activities in some way.

Whichever approach is taken, at a certain point in the process companies need to move from development to delivery if they are to achieve the desired objective or outcome.

Managing that transition requires careful thought. It may involve integrating the innovation fully into the company's normal structure, systems and processes; at the very least it will require support from other parts of the company to achieve successful implementation.

Many of the companies we spoke to reported that teamwork and cooperation had been key to achieving successful integration.

Companies should also ensure there is vertical integration, from top to bottom and vice versa. While the board is responsible for identifying strategic opportunities and threats and for setting the desired objectives, it will not normally be responsible for generating the innovation and ideas itself – at least not once the company has grown to any size. Many of those ideas and innovations will come up from within the company.

Encouraging 'bottom up' innovation is an essential part of developing a supportive culture, but it needs to be aligned with the top-down direction set by the board. There therefore needs to be clear lines of communication in both directions.

Culture that encourages innovation

We were told consistently throughout the inquiry that having a supportive and conducive culture was the single most important factor in successful innovation. If the right culture is in place, then the company is more likely to acquire the characteristics discussed above. The culture also affects whether other aspects of its governance structures and processes act as enablers or barriers.

Culture is by its very nature hard to define but innovative cultures appear to have a number of features in common. They include:

- flexibility;
- curiosity;
- a high level of individual initiative;
- a willingness to experiment; and
- a tolerance of 'well intended' failure.

By contrast, companies whose culture is characterised by pervasive short-termism or low risk tolerance is unlikely to be innovative.

There are many different factors that influence a company's culture, and the board is in a position to affect most of them. They include, for example, the use and design of rewards and incentives.

Arguably the most important factor is clarity about the company's purpose and values and how they are communicated, which can inform the company's strategy and provide a guide to its culture, including in respect to innovation.

Aspects of corporate goverance relevant to innovation

This section of the report identifies those aspects of a company's governance arrangements that appear to be particularly relevant to its ability to innovate successfully. Each has the ability either to support or constrain innovation depending on how they are addressed.

This report does not address all aspects of corporate governance, but all are potentially relevant to innovation. This is because each company's governance arrangements are an ecosystem, not a collection of unrelated structures and processes.

Weaknesses in one part of the system can impact on the effectiveness of others, and by extension on innovation. Companies are encouraged to look at all parts of their governance framework when assessing whether it supports or constrains their ability to innovate.

Purpose and values

As noted in the previous section, one of the key determinants of a company's culture - and by extension its ability to innovate - is whether it has a clearly articulated purpose which is supported by a set of values. One interviewee considered that purpose is "the base block for innovation", feeding directly into the company's strategy and culture.

A company's purpose provides direction and enables the board to identify the objectives its innovation efforts are intended to achieve, while the values describe how they are to be achieved. This might include not only promoting positive attributes such as flexibility and willingness to try out new ideas but also setting clear boundaries, for example spelling out any behaviours or risks that will not be tolerated.

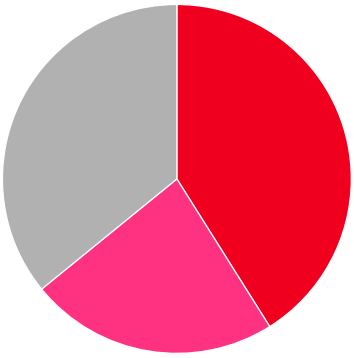
A number of interviewees observed that having a clear direction and parameters can spur on innovation, with one noting that "if you start with a blank sheet of paper it is unlikely an idea will be pushed to the furthest extent that it can go".

In this inquiry we have not attempted to define a particular purpose; that is something that each company needs to consider. However, our analysis of the disclosures of innovative UK companies found some recurring themes in the way in which they described their purpose. For example, many referred either to bringing about change or transformation or to solving identified problems.

Nearly a quarter of IoD members who responded to the survey carried out in August 2022 said their company did not have a mission statement or a statement of values, but of those that did just over 50% included a reference to innovation.

Of course, a clear purpose and values are only beneficial if processes and structures are in place to ensure they are implemented and clearly communicated throughout the company. This a matter for the whole company, but it starts with the board.

Reference to innovation on the mission statement or values (Source: survey of IoD members, August 2022. Number of respondents: 702)



Yes	41%
No	35%
No mission statement	23%

Board composition

In the previous section we identified the board's capacity to appreciate the importance and relevance of innovation as a key characteristic of successful innovation. The starting point is to ensure that the board collectively has the skills, expertise, perspectives and mindset that will enable it to do so.

Boards should add appreciation of innovation to the list of attributes that they take into account when reviewing their composition and developing skills matrices. Each company will need to determine what that means in its own specific circumstances. Given the fast moving and forward-looking nature of innovation, regular refreshment of the board might also be desirable.

An issue that came up regularly in interviews was the importance of having people with an entrepreneurial background and creative mindset on the board to balance those who were seen as being more risk averse. It is important that boards that are focussed on, and have something to add to, the strategic development of the company rather than just managing away risk.

This was seen as being a more significant issue for large and established companies and those that are heavily regulated. There was a perception that in many of these companies the board's compliance and monitoring roles are the main ones that are thought about when appointing new non-executive directors, and in particular independent directors.

In smaller companies this is seen as less of an issue, especially if some of the founders are still involved and seated on the board. That said, we were told that in some founder - and family-owned businesses there can be a resistance to change which creates a barrier to innovation.

Some academic research points to a possible correlation between board diversity and innovation[7].

This appears to be borne out by our own desk research into the governance arrangements of innovative UK companies. In the companies that were reviewed diversity was most evident in terms of nationality, with other characteristics such as gender and ethnicity diversity more evident in the listed companies in the sample.

Board responsibilities

Ultimately, it would be a desirable outcome if boards did not need to have separate, defined responsibilities in respect of innovation. That would mean it had been fully integrated into the way in which they exercise wider responsibilities for setting the strategy, determining risk appetite and values, allocating resources, monitoring performance and so on.

While some boards have achieved that degree of integration, it appears anecdotally that many have not. Where that is the case, boards should consider identifying and formalising the actions they will take to support innovation. These might include, for example:

- Allocating lead responsibility for innovation;
- Receiving regular briefings on external developments that might have an impact on the company's need to innovate;
- Determining whether the company requires breakthrough innovation and, if so, whether this will be sourced internally or externally;
- Determining the risk appetite and resources for innovative activities;
- Monitoring the progress and performance of innovative activities, and agreeing the metrics for doing so; and
- Approving any reward and incentive measures or programmes relating to innovation.

7 For example, 'Board diversity and firm innovation: a meta-analysis'; Teemu Makkonen; European Journal of Innovation Management; February 2022

Allocating lead responsibility

The consensus view of all those we spoke to was that lead responsibility for innovation needs to be at a sufficiently senior level to exercise influence within the company and provide visibility to the board. The further down the company this responsibility lies the more likely it is that innovation will be perceived as a low priority.

Research and interviews both pointed to the critical role played by the CEO, as either the potential champion or enemy of innovation depending on their aptitude and attitude. This is particularly important in companies where the CEO is also the founder.

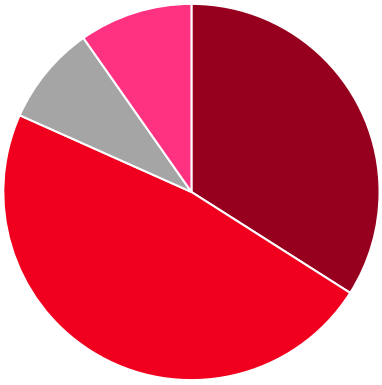
The importance of the CEO is reflected in the responses to the IoD member survey. Nearly half of all respondents reported that the lead responsibility for innovation in their company rested with the CEO, compared to one-third who said that it rested with the whole board.

Eight percent of respondents reported that their company had a Chief Innovation Officer or equivalent position, but there was a clear distinction in terms of company size, with 15% percent of large companies having such a position compared to only 5% of small companies.

The desk research suggests innovative companies appear more likely to have a key 'C' level director who is accountable for technology, digital and/or innovation. However, even in these companies they are rarely board level positions, although there are some exceptions. A number of interviewees commented that where the lead individual was not on the board they should nonetheless participate in the board's discussions of innovation as a matter of course.

The desk research also suggests that many innovative committees have board committees that appear to include at least some innovation-related activities in their remit. By contrast, only two of the 150 largest UK listed companies have a technology and innovation board committee[8], although many others have committees such as sustainability committees that might address some aspects of innovation.

Lead responsibility for innovation
(Source: survey of IoD members, August 2022. Number of respondents: 702)



CEO	47%
The board	33%
Head of Innovation or equivalent	8%
Other	10%

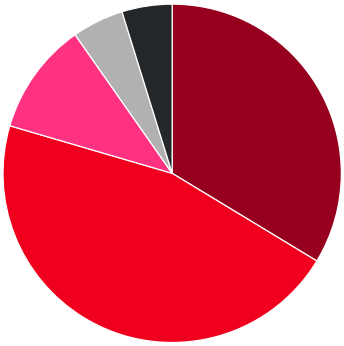
8 '2022 Spencer Stuart UK Board Index'; Spencer Stuart; 2022

Frequency of board discussion

Board meetings often suffer from crowded agendas, resulting in a lack of time to discuss issues in any depth. It can be difficult to find room for discussion of innovation, but it is important to do so if the board is to set the necessary direction and strategy and assess the volume and value of its innovation efforts. This does not preclude also adding innovation to the remit of a new or existing board committee.

In our survey of IoD members we asked how often their board discussed innovation. One-third of respondents said it was discussed at every board meeting. Less encouragingly, 20% said it was discussed once a year or less. This figure rose to 25% when looking at responses from small companies only.

Frequency of board discussions on innovation
(Source: survey of IoD members, August 2022. Number of respondents: 702)



Some but not all meetings	45%
Every meeting	33%
Once a year	11%
Less than once a year	5%
Never	5%

Information and metrics

Boards are heavily reliant on the quality of the information to which they have access in order to do their job effectively. This issue came up during the Inquiry in two respects: the information boards use to inform strategic decisions and test out hypotheses relating to innovation, and the information they use to measure innovation performance. There is, of course, some overlap between the two.

Boards primarily rely on management briefings as the source of information, but it may be that management is not always best placed to provide information on emerging threats or opportunities. It is also more difficult for board members to provide effective challenge to management effectively if they are not proactively seeking an external perspective.

Some interviewees commented that boards need to better equip themselves to ask the sorts of questions that stimulate innovative thinking by management. We were told that an increasing number of boards and directors supplement management information with external sources such as industry analysts and trade publications, and that some boards will invite independent subject experts to brief them.

As regards performance, there was a view shared by a number of interviewees that the typical financial and operational performance metrics used by companies measure short-term performance and are not necessarily the right ones for assessing more speculative innovative activities with a longer delivery time.

Traditional metrics may create a barrier to innovation if they are the only measures the board use, for example when deciding whether to start or continue with an R&D project, as innovative activities may compare badly against the company's established activities.

For this reason, some interviewees stated that a 'balanced scorecard' approach was more suitable. These should include non-financial metrics and leading indicators that are linked to the objective that the innovation is intended to help achieve.

The choice of innovation-related metrics needs to be carefully considered, as they can affect behaviour and the allocation of resources. There can be a risk of prioritising those aspects of innovation that are measurable but may not necessarily add the most value.

Innovation-related metrics

According to a survey of US directors[9] the most commonly used innovation-related metrics are:

- Percentage of revenue from new products or services (54%)
- Resources allocated to new product offerings or new customers (45%)
- Return on investment on innovation-related projects (43%)
- Resources and employee time allocated to innovation-related projects (43%)

Other metrics included forecast revenue from innovation projects in the pipeline, speed to market and the number of new ideas implemented during the reporting period.

As well as measuring innovation performance, boards and senior management should also aim to identify metrics that enable them to assess and measure progress in developing the capabilities the company requires in order to be innovative, for example the level of skills in the workforce.

Organisational structure and ways of working

As noted in the previous section, integrating innovation appropriately into the company's activities is a key characteristic of successful innovation. Careful thought therefore needs to be given to the organisational structure of the company at and below senior management level.

The appropriate approach will depend on many factors including the size and complexity of the company, the nature of its activities, the type of innovation involved - breakthrough or incremental - and whether it is being undertaken within the company or sourced externally.

Incremental innovation can potentially originate anywhere in the company and may not require any change to existing organisational structures. What is more important is that the company has systems in place that enable it to capture and implement innovative ideas.

Different considerations may apply in the case of breakthrough innovation. We heard a number of examples of companies where this type of innovation is carried out by separate units sitting outside the normal management structure. This is to ensure that they neither disrupt other 'business as usual' activities nor get neglected while managers focus on more immediate targets and deadlines.

9 'How Boards Are Governing Disruptive Technology'; Corporate Board Member/ EY; 2019

In other cases, companies might choose collaboration or acquisition as their approach to breakthrough innovation, which might require specifically designed structures; for example, some large companies establish corporate venturing units. Where this approach is taken the interaction – or in the case of acquisitions, integration – with the rest of the company needs to be carefully considered. This should include a consideration on whether the cultures of the different parties are compatible.

Whatever formal structures the company has in place, several of the interviewees we spoke to emphasised the importance of cross-working, particularly but not exclusively as a means of encouraging incremental improvements and innovations. Involving different parts of the company helps to identify specific challenges to be addressed and to create a shared culture – two of the other key characteristics of successful innovation.

Rewards and incentives

In addition to the purpose and values, one of the main drivers of a company's culture can be its approach to financial and other rewards and incentives.

Companies can use their reward systems to incentivise innovation, although how they do so needs to be carefully calibrated and monitored. There are many examples of the wrong sort of behaviour being unintentionally incentivised by poorly chosen targets and KPIs. It is also important to avoid giving excessive weight to incentives that might deter innovation.

Our analysis of the governance arrangements of innovative companies found little evidence that director remuneration or financial incentives for employees are very sophisticated in how they reward innovation, although that needs to be qualified by noting that only listed companies provide much information on this topic.

For senior managers, the scorecards used to calculate their remuneration should include 'innovation friendly' metrics, including non-financial metrics. This is important in order to counterbalance other metrics that might incentivise short-term behaviour and discourage managers from prioritising and allocating resources to innovation, for example earnings per share over 12 months.

Evidence suggests that 'innovation friendly' metrics are currently given insufficient weight. A 2019 study found that, on average, the remuneration packages of executive directors in FTSE350 companies were weighted towards conditions which discourage innovation spend rather than positively encouraging innovation in a ratio of about 3:1[10].

This is not just an issue for senior managers. For the whole workforce, companies should consider how they can use performance assessments, rewards and recognition systems to encourage the generation of new ideas and the implementation of innovative products and processes. This might include collective rewards and incentives as well as individual ones as incremental innovation is often the result of teamwork and cooperation.

One important consideration is how employees are treated if their attempted innovation is not successful. Any perception that they are punished as a result will deter them and others from trying again.

10 'The Invisible Drag on UK R&D'; NESTA; August 2019

Collaboration and partnering

A recurring theme throughout the inquiry was the growing importance of collaboration and partnering as a source of innovation.

This can take many different forms, ranging from relatively simple collaborations involving two or more companies or a company and a research organisation up to larger networks involving multiple participants and stakeholders, sometimes referred to as open innovation.

Larger companies may use collaboration and partnering to supplement their own in-house innovation activity. This was the case for some of the companies we interviewed and many of the innovative UK companies whose governance arrangements we analysed. For smaller companies it provides them with access to resources that would not otherwise be available and creates opportunities for growth.

The potential benefits of collaboration and partnering as a means of generating innovation are clear. It brings together different skills, perspectives and resources and, depending on the exact nature of the collaboration, reduces cost barriers by spreading them between the participants. Learning is shared, which can potentially accelerate further innovation.

The potential broader economic benefits of innovation networks and ecosystems have been recognised by a number of UK regions and cities who have developed 'innovation districts' and 'knowledge quarters'[11].

Just as the governance of individual companies impacts on their innovative capabilities, so the governance arrangements for partnerships and networks can either support or impede their effectiveness depending on how they are designed and implemented.

The characteristics of successful innovation identified earlier in this report apply equally to collaborative innovation. These in turn need to be underpinned by governance processes that will engender trust that the interests of all participants will be respected and the benefits fairly distributed.

We have not had the opportunity during this inquiry to analyse in any detail the governance factors that are key to supporting successful collaboration and partnering, but we consider this to be an issue that could benefit from further work, particularly in relation to the larger and more complex networks and ecosystems.

11 Details of these districts can be found at https://www.ukinnovationdistricts.co.uk/

The impact of ownership

A company's ownership can have an important influence on its ability to innovate when it affects the attitudes and behaviour of the board. The owners' influence is more direct in private companies where they will frequently sit or be represented on the board, in contrast to listed companies where this is the exception not the rule.

If the board and management wish to be innovative, then they may seek to attract owners who are sympathetic to that approach. Companies should aim to ensure wherever possible that there is an alignment of interest between their ambitions and time horizons and those of their existing and potential owners, and a fit between their respective culture and values.

This applies to companies at all stages of their development, from those just starting out - to quote one interviewee, "it is important to decide if early-stage investors will be an anchor enabling you to scale up and innovate; if not, trying to align long-term plans with what they want can be a waste of time" – to large and mature companies.

However, we heard during the course of the inquiry that this alignment is not always easy to achieve. It is particularly seen as an issue for listed companies and for innovative companies wishing to attract the 'patient capital' required for them to grow.

Listed companies

There is a perception that some shareholders have a tendency to prioritise their own short-term interests to the detriment of the longer-term health of investee companies. Those who hold this view argue that as a consequence existing listed companies invest insufficiently in innovation and innovative companies are deterred from turning to the listed markets for the growth capital they need.

Following Lord Hill's review of the UK listings regime[12] the Financial Conduct Authority introduced changes to the Listing Rules in December 2021 specifically intended to attract innovative growth companies by reducing their perceived exposure to short-termism – for example, reducing the minimum free float and permitting some dual-class share structures.

Many investors dispute this perception, and point out that they increasingly incorporate long-term considerations into their own investment decision-making, and assess investee companies' capital allocation policy as part of their stewardship activities[13].

Engagement between listed companies and shareholders on sustainability and long-term value creation appears to be increasing, with many investors including the topics in their lists of engagement priorities for 2022. Anecdotally, however, it seems that the contribution that innovation can make to achieving these objectives is rarely explicitly discussed. Boards of listed companies are encouraged to include innovation on the agenda when engaging with major shareholders.

12 'UK Listing Review'; March 2021
13 'ICGN Viewpoint: Capital Allocation'; International Corporate Governance Network; 2019

Growth companies

Previous reviews, including HM Treasury's 2016 Patient Capital Review, have identified that "the patient capital gap is most acute for innovative, growth companies seeking to scale up to become established, reputable companies with global clout"[14].

The view of many individuals we spoke to is that, despite the actions subsequently taken by Government to address the issue, the gap still remains. This view is also shared by many companies that have succeeded in scaling up to a degree. While the number of companies that have done so have increased significantly over the last ten years, 40% of them still perceive that there is insufficient growth capital to meet their needs[15].

Many of the reasons for this will be structural ones, but some interviewees considered that a perceived lack of understanding or appreciation of innovation or technology-led business models on the part of many UK venture capital and private equity investors was a factor that may affect their willingness to invest in innovative companies with high growth potential.

Some interviewees contrasted this with the US experience and felt that this partly explained the number of UK start-ups and small innovative companies that were acquired by US rather than UK venture capital and private equity firms, alongside other factors such as the relative size of major US funds and their consequent ability to absorb speculative investments.

Founder, family and employee ownership

One type of company where one would expect to see alignment of interest are founder- or family-owned companies, and the founders played a major role in many of the innovative private companies whose governance arrangements we analysed. However, we heard that some of these types of company may face other governance challenges that would militate against innovative. Examples included a lack of diverse skills or different perspectives within the company, a lack of an external focus and a resistance to change.

Finally, it was notable that a number of the innovative UK companies whose governance arrangements were analysed had some form of employee share ownership scheme. There were not enough of them to conclude that there is a clear correlation between schemes of this type and successful innovation, but employees – like founders and families – may be more naturally aligned with the long-term interest of the company than some external providers of capital[16].

14 'Financing growth in innovative firms: consultation response'; HM Treasury; November 2017

15 'Scaleups: Energising The Economy'; Scaleup Institute; 2021

16 A summary of existing research on the impact of employee share schemes on company performance can be found in 'A Stake in Success: Employee share ownership and the post-COVID economy'; Scott Corfe; Social Market Foundation; May 2021

The impact of public policy and regulation

The activities of policymakers and regulators can impact on companies' ability to innovate in many different ways.

These activities can be divided into three broad types: those that are intended to ensure the availability of the building blocks for innovation such as skills, capital and the research base; those that are intended to create opportunities for innovative companies; and actions taken for reasons unrelated to innovation that, usually inadvertently, have the potential to create barriers to innovation.

In this inquiry we have primarily focused on the last category, and in particular on regulation and other actions that impact on companies' governance arrangements in a way that might not be conducive to innovation. However, before discussing that issue, we will also comment briefly on the other two categories.

Developing the building blocks

In July, the IoD published a policy paper titled 'How To Increase Business Investment'[17] which contained a series of recommendations on actions that the UK Government could take to increase business investment in skills, digital processes and physical capital.

17 'How To Increase Business Investment'; IoD; Summer 2022

IoD recommendations for increasing business investment in skills and capital

The recommendations include:

- The creation of a fully independent Shortage Occupations Agency to advise on current and future skills requirements in the UK;
- Using the tax system to incentivise business training to address skills requirements identified by this agency; and
- Extending the 130% capital investment 'super-deduction' beyond April 2023.

Creating opportunities for innovative companies

A 2020 report commissioned by the Department for Business, Energy and Industry Strategy[18] identified five methods by which policymakers and regulators could assist innovative companies. These are:

- Providing regulatory advice to innovators;
- Supporting experimentation and testing of innovations;
- Streamlining regulatory approvals for innovators;
- Setting regulatory challenges to drive innovation; and
- Collaborating internationally on innovation to achieve regulatory harmonisation.

Some sectoral regulators in the UK have already adopted one or more of these approaches. For example, the Financial Conduct Authority and OFGEM both have regulatory 'sandboxes', which are designed to give companies with innovative propositions an opportunity to test them in the market, while OFWAT runs its own innovation fund. Other regulators should be encouraged to adopt similar approaches.

18 'Regulator Approaches To Facilitate, Support And Enable Innovation'; BEIS; January 2020

Regulatory barriers to innovation

Regulation can be an important enabler of innovation, for example by creating markets, promoting competition and intellectual property and setting standards that give consumers the confidence to use innovative products and services.

At the same time, regulation has the potential to be a barrier to innovation. Sometimes this is intentional, such as when certain products or processes are banned. But often it may be an unintended consequence, for example when it increases costs or creates uncertainty as to what is permitted.

The perception of many individuals we spoke to during the Inquiry was that the impact on innovation has not always been adequately considered when designing new regulations or policies.

This view is shared by the Regulatory Horizons Council, an independent expert committee set up by the Government with expert advice on the regulatory reform needed to support the rapid and safe introduction of technological innovations.

In its report published in June 2022[19], the Council made many sensible recommendations addressing this issue. The Centre supports these recommendations and would encourage the Government and regulators to adopt them as soon as practicable.

Regulatory Horizons Council – selected recommendations

Regulators and policymakers should:

- always include cost-benefit analysis and regulatory impact assessments when evaluating the impacts on innovation. This should be taken into account in deciding whether and how to regulate;
- make more use of adaptive regulatory tools, such as 'sandboxes', and do more to share learning and best practice in the use of these tools; and
- work with appropriate bodies to provide training resources and courses for regulatory professionals on best practice on regulation and innovation.

The Government should:

- maintain its commitment to the introduction of regulation only when necessary, consider alternatives to regulation and to signpost best practice; and
- develop and implement guidance for regulators and policymakers on how to assess the impact of regulation on innovation as part of cost-benefit analysis and regulatory impact assessments.

19 'Closing the Gap: Getting from Principles to Practices for Innovation Friendly Regulation'; Regulatory Horizons Council; June 2022

An earlier report by the Taskforce on Innovation, Growth and Regulatory Reform[20] advocated an outcome-focused approach to regulation. This approach has some obvious attractions in relation to innovation as it can provide a degree of 'future-proofing' - the development and adoption of new technologies or processes will not be held back just because they are not explicitly permitted.

However, there are also potential pitfalls in this approach. It can have a freezing effect on innovation if it creates uncertainty for companies about what is and is not permitted, and it requires regulators to have sufficient knowledge to make informed decisions on a case-by-case basis rather than fall back on a standard set of rules. One potential example of this is the regulation of artificial intelligence.

Regulation of Artificial Intelligence (AI)

In a policy paper[21] published in July 2022, the Department for Digital, Culture, Media and Sport recommended that there should be no new legislation for AI. Instead regulators will be required to apply existing regulations to emerging innovations with the support of new cross sector principles.

On the one hand it could be argued that the lack of boundaries around AI use will create an open field to enable innovation to prosper. On the other hand, the potential gap in legal certainty presents issues for boards who will be responsible for assessing and mitigating the risks that the application of a broad range of AI based technologies may pose to their organisations and stakeholders.

To address the perceived lack of legal certainty and the associated risks, the IoD's Expert Advisory Group for Technology, Science and Innovation is developing new governance guidelines for directors. The guidance will set out signposts to simplify AI terminology, a framework of questions to assist in risk assessment, and a range of mitigating measures. The draft guidance is expected to be available for comment in early 2023.

20 'Taskforce on Innovation, Growth and Regulatory Reform'; May 2021
21 'Establishing a pro-innovation approach to regulating AI'; DCMS; July 2022

Impact of regulation on corporate governance

If you accept the argument that a company's governance arrangements influence its ability to innovate, then it follows that the way corporate governance is regulated can also have an indirect influence on innovation.

Some individuals we spoke to expressed the view that the UK Corporate Governance Code, which applies to listed companies, operates in practice as a de facto set of rules rather than on the intended flexible 'comply or explain' basis.

The Financial Reporting Council announced in November 2022 that it will be reviewing the Code in 2023, and this may provide an opportunity to redress the balance between the Code's 'principles', which are largely outcome-focused, and its more detailed 'provisions'.

That said, the Code was not the main concern that was raised during the Inquiry. Rather, that was the cumulative effect of regulation on boards which was felt to have two indirect adverse impacts on innovation, at least for larger and heavily regulated companies.

The first adverse impact is that many boards spend a disproportionate amount of their time dealing with compliance issues at the expense of strategy, innovation and other matters crucial to the current and future performance of the company.

The second is that the focus of compliance has tended to make boards more risk-averse, a trend that becomes self-reinforcing as it informs the selection of new board members whose mindset and skill sets may not enable them to contribute to cultivating an innovative culture.

This is something that companies need to consciously guard against when considering board composition.

Directors' duties

In the earlier section on ownership we noted the perception that the interests of owners and investors could in some instances be at odds with long-term interest of the company, with the result that investment in innovation was not always seen as a priority.

One possible contributory factor is the wording of Section 172 of the Companies Act 2006, which has been interpreted in some quarters as placing a duty on directors to prioritise the interests of shareholders over other considerations.

The IoD is a supporter of the Better Business Act campaign[22], which is calling for a change to the law to instead require directors to act in a manner most likely to advance the purpose of the company. Supporters of the campaign argue that such a change would make it more explicit that directors are free to decide that the purpose would be best served by investing in innovation or pursuing other long-term objectives.

22 https://betterbusinessact.org/

Appendix: inquiry methodology

The Centre gathered evidence for this report during the period June to October 2022 using six different methods:

- A review of academic and other relevant literature;
- Desk research reviewing the public disclosures of innovative UK companies;
- A call for evidence inviting written comments;
- Individual interviews;
- Meetings with IoD expert advisory groups and other round tables; and
- A survey of IoD members.

Literature review

The literature review had two purposes. The first was to gather data and analysis on the drivers of innovation and the UK's innovation performance, and to identify relevant policy developments and debates. The second was to inform the desk research.

Desk research

The purpose of the research was to review public disclosures by innovative UK companies to see whether there appeared to be a correlation between their innovation success and any specific governance factors or practices.

The research was undertaken by an independent researcher, Dr Jenny Simnett of People in Places Ltd, and was sponsored by Morrow Sodali.

An initial academic literature review was conducted to identify governance characteristics that had been linked to innovation. The list of characteristics was edited to remove those about which information could not be ascertained through a review of disclosures.

A sample was constructed consisting of 45 UK companies that had been rated as innovation leaders by various sources including award schemes and 'top innovator' lists. It consisted of five companies each from nine sectors, with the majority of sectors being chosen because they had also been rated as ones in which the UK is relatively innovative.

In turn, the sample for each sector included companies of all sizes and both listed and private companies.

The sample initially included a cross-sectoral selection of five microbusinesses and recent start-ups but they were removed as there was little or no publicly available information about their governance. The amount of information provided by the other companies that were reviewed also varied according to size and whether or not they were listed.

Call for evidence

A discussion paper titled 'Public Inquiry: Governance and Innovation'[23] was published on 15 June. The original period for comment ran until 12 August, although this was subsequently extended to the end of August.

The paper invited comments on a set of questions covering four broad topics: the role and composition of the board; the company's internal processes and structures; the company's ownership structure; and the regulatory framework within which the company operates.

The response was disappointing, and only six written responses were received. However, a number of these were followed by meetings or interviews with respondents to give them an opportunity to elaborate on their views.

23 'Public Inquiry: Governance and Innovation – Call for evidence'; IoD Centre for Corporate Governance; June 2022

Interviews

Between July and September a total of 25 interviews were carried out, primarily with company representatives (including board members and senior managers) but also with some advisors, investors and academics.

The companies that were interviewed ranged from SMEs to large listed companies, and were drawn from a wide range of sectors. They were predominantly but not exclusively UK based.

All the interviews were conducted either by the Centre's senior advisor, Chris Hodge, or by representatives of Board Intelligence. Some of the interviews were facilitated by Morrow Sodali.

Other discussions

In parallel to the interviews the review team had several meetings with the IoD's Expert Advisory Groups on Corporate Governance and Technology, Science and Innovation.

Following the completion of the evidence-gathering phase in October the Centre convened two round table meetings to present and get feedback on the emerging findings. Everyone who had contributed through one of the channels mentioned above was invited to attend.

IoD Member Survey

In August, the IoD included three questions relating to innovation in its monthly member survey, 'Policy Voice'. The questions were:

- Does your company have a mission statement or statement of values that includes a specific reference to innovation?
- How often does your board (or equivalent body) discuss innovation?
- Who has lead responsibility for innovation in your company?

Details of the responses to these questions are included in the section titled 'Aspects of corporate governance relevant to innovation'.

In total, 702 IoD members responded to the three questions. Of those that identified the size of their company, 73% were from small companies, 19% from medium-sized companies and 8% from large companies.

Acknowledgements

Many individuals and organisations have contributed their time and insights to this Inquiry, and we are very grateful to all of them for doing so. In particular we would like to thank:

- Stilpon Nestor, Elena Cargnello and colleagues at Morrow Sodali for sponsoring the desk research and facilitating some of the interviews;
- Megan Pantelides and colleagues at Board Intelligence for facilitating and conducting many of the interviews;
- Dr Jenny Simnett at People In Places Ltd for carrying out the desk research;
- Everyone who participated in interviews and meetings and who responded to the Call for Evidence;
- All IoD members who took part in the survey;
- All members of the Centre's Advisory Board for their helpful input; and
- At the IoD, Georgie Holden for project managing the Inquiry, Emma Rowland for organising the members' survey, and Maria Doumpa and Victoria Osborne for designing and producing the report. Above all, we wish to acknowledge the contribution of Chris Hodge, Senior Adviser to the Centre, who was the author and architect of this report.

If you have any feedback relating to this report, please contact Georgia Holden at georgia.holden@iod.com

About the IoD Centre for Corporate Governance

The IoD Centre for Corporate Governance exists to explore current issues in corporate governance, company stewardship and ESG - for the benefit of the business community, IoD members and wider society. The Centre arises from the IoD's Royal Charter obligation to "promote the study, research and development of the law and practice of corporate governance". The Centre functions as an independent, not-for-profit centre of excellence under the umbrella of the IoD. Please note that views expressed in Centre publications do not necessarily reflect the position of the IoD or the Centre Advisory Board, and are solely the responsibility of the authors.

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