

Protecting intangible assets: Preparing for a new reality

August 2020



Foreword

Preparing for a new reality of new assets and new threats

COVID-19 has disrupted global supply chains and has moved the world towards de-globalisation. It has changed working arrangements, businesses' ability to trade, consumer behaviours, and the role of the state. It has also created a new social contract between business and society. In many ways, it has accelerated underlying market trends such as the shift to remote workforces and digital transactions.

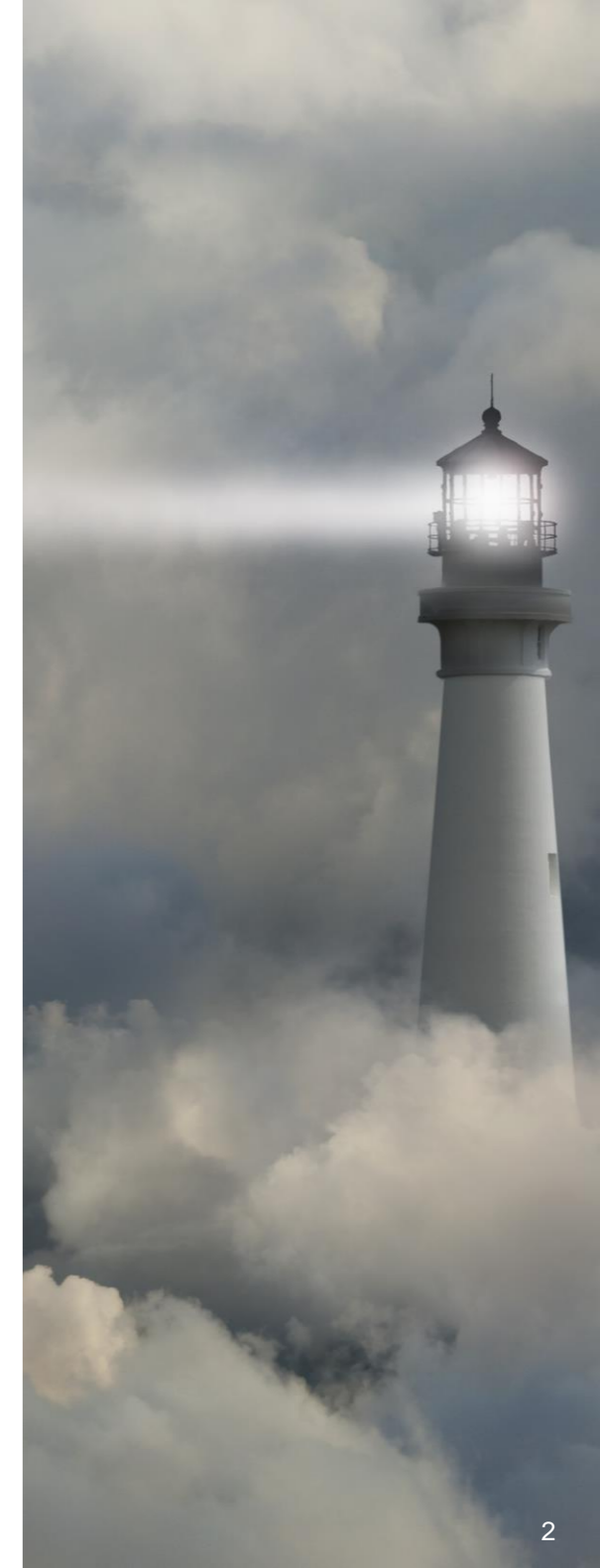
The fundamental shift towards a new world dominated by intangible assets like reputation, human capital, and intellectual property, started decades ago, long before any detailed discussions about looming pandemic risks. Step-by-step, the importance of intangible assets grew – from around 17% of S&P asset value in 1975, to 32% in 1985, to 68% another decade later in 1985, and ultimately exceeding 80% in the last 10-15 years. This has been closely linked to the changes in the economic landscape, with technology-driven service companies becoming increasingly prominent, while industries famous for their holdings of property, machinery, and other tangible assets, have slowly given way.

Restrictions enforced for public health purposes have accelerated progression towards a new reality. An increasing number of executives have started questioning the return to normal even after COVID-19 disappears. That means that we suddenly have a world where most of the workforce and business data (including potential trade secrets) is scattered across thousands of living rooms, kitchens, and bedrooms, while expensive office buildings are kept empty.

Not only does it become more difficult to manage intellectual property in such an environment, but additionally the traditional ways of managing teams and culture have to be rethought.

Similarly, as the new post COVID-19 world drives anxiety levels to new highs, businesses are also more prone to making reputational mistakes that can leave lasting impact in the way their customers, employees, distribution partners, and other stakeholders perceive the character of their business. This is particularly important as various activist events keep pushing the corporate environment from traditional shareholder capitalism to stakeholder capitalism. The recent 'Black Lives Matter' protests have demonstrated the power of social activism and the need for businesses to embrace the changing social norms. We could well see activist movements growing in the next few years to address some of the well-known global challenges, ranging from climate change to income inequality.

Risk owners in businesses across all industries will have to be alive to these changes to make sure they have the right tools to keep enhancing their corporate value. They will have to rethink the optimal ways of using risk management practices to build internal resilience and become proficient at safeguarding their existing and new intangible assets.



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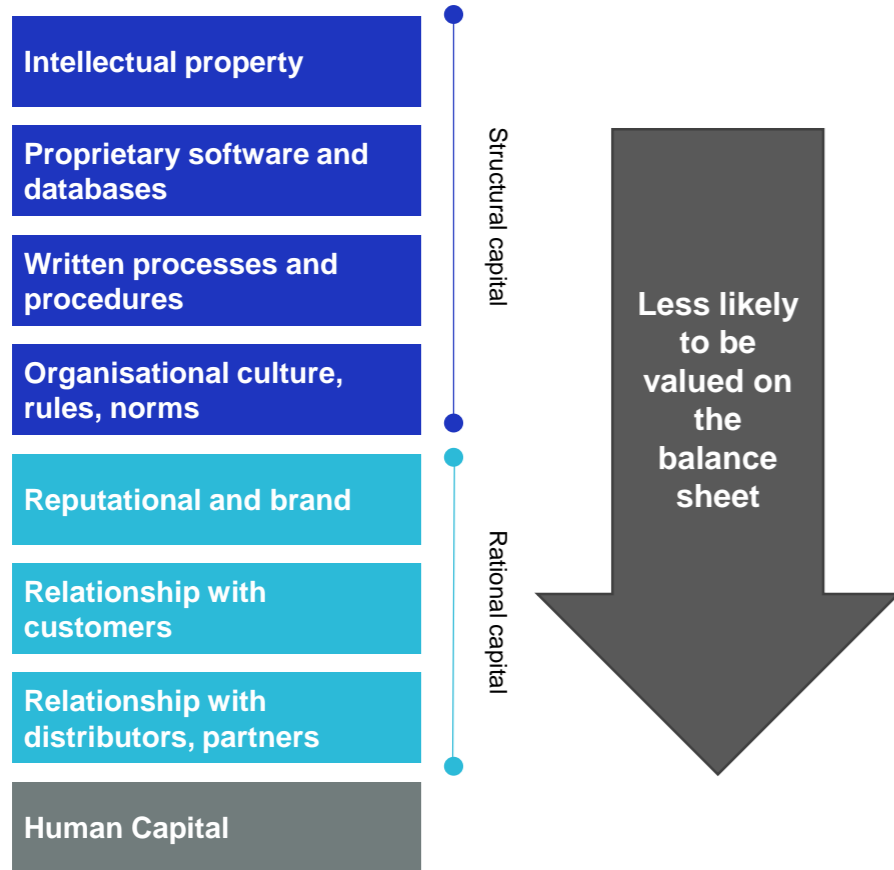
Moving forward

Executive Summary

Reputation, human capital, and intellectual property are becoming the main drivers of value in most industries across the globe.

A new intangibles driven world

8 key intangible assets



A changing economic landscape



For several decades, businesses around the world have gradually embraced digital business models, opening doors for new technology-driven industries like artificial intelligence, robotics, 3D printing, and cryptocurrencies.

Over the past few months, prompted by COVID-19 and its restrictions, this shift towards digital business models has accelerated, with organisations switching to remote working, museums and safari parks conducting virtual tours, veterinary clinics switching to tele-medicine, and wine bars opening video-conferencing 'drinking-rooms'.

With this change, organisations suddenly have to protect employees and information at their homes (instead of a central office), tackle new types of reputational threats, and deal with many other challenges almost unimaginable a year ago.

The value of intangible assets such as reputation, human capital, and intellectual property, is significant. According to some estimates, it already accounts for as much as 85% of the total business value across industries. With the acceleration of digital business models, amplified by COVID-19, this value could now increase much further, becoming a major driver of business success.

What are the main issues related to intangible assets?

Example issues businesses are facing

Reputation and brand

- Dealing with poor employment practice, e.g. breach of confidentiality by employees.
- Corporate conduct issues, e.g. due to poor supplier vetting or insufficient data privacy in activity tracking during remote working.

Human capital

- Challenges in codifying and sharing knowledge especially in remote working.
- Insufficient HR analytics and staff training and education.
- Growing mental health issues.

Intellectual property

- Increasing pressure from patent trolls.
- Evolving technology to allow reverse engineering of trade secrets.
- Growing online piracy and counterfeiting.

Just as we manage the impact of physical risks (e.g. fire, flood) on tangible assets (e.g. buildings), industries also need to rapidly develop similar risk frameworks to build resilience in intangible assets.

Reputation and brand

Employment practices



Social issues



Corporate conduct



Civic responsibility



Charity / Philanthropy



Environmental stewardship



Human capital

Migration



Employees leaving



Illness and mental health



Disruption to conventional working arrangements



Inability to keep up with innovation



Intellectual property

Patent infringement



Trademark infringement



Copyright infringement



Piracy



Trade secret appropriation



How do resilient organisations protect themselves?

Resilient organisations build intangible value over the long term and use a combination of public mechanisms (e.g. patent registration), legal or contractual remedies, risk management and contingent capital to respond to short-term issues.



Building resilience includes:

Organisations **understanding the value of intangible assets**, how to monitor changes in the value of them over time, and building prevention and response mechanisms for risks that could destroy value. This could involve legal, communications, finance, sales and risk management, to develop a resilience plan.

Asset example activities:

Organisations that are the **most advanced in their reputation management**, use proactive methods to influence adverse behaviours in the organisation. Boards of such organisations are increasingly interested in their reputation value and want to understand how to measure it. They are also “horizon-scanning” regularly so that no significant social movements outside the business are missed.

The largest loss of **human capital** typically occurs when an **organisation loses a large number of key employees, without being able to codify as much knowledge as possible**. The most successful organisations are those who are rigorous in articulating procedures and organise regular knowledge sharing and related data capture. They often apply advanced HR analytics to manage human capital risks.

The most successful organisations are introducing **stricter ways to protect IP that is not published and is secret**, particularly due to advancements in cyber attacks and corporate espionage. This includes a range of cyber protection measures as well as stricter employment contracts. Some organisations have developed internal crisis response guidelines and are working with third parties in case of adverse events.

Even though intangible assets are becoming increasingly valuable and increasingly critical as drivers of competitive strength in the market, they are often **overlooked by ‘risk owners’**, typically an organisation’s executives.

The best practice from across different industries shows that **businesses are the most resilient when risk owners work closely with risk managers** in their organisations to find the optimal ways of protecting organisation’s assets. This is particularly important in the case of intangible assets that are hidden.



Reputation and brand



Human capital



Intellectual property



Would you be prepared if this happened?

Example 1: Challenges in remote working

- Following government advice, all employees have been asked to work remotely from home.
- You notice that average productivity drops by 30%.
- You see a significant increase in the instances of security breaches.

Example 2: Reengineering your product

- You find that a counterfeit product indistinguishable from yours is on sale via online platforms but your organisation has not produced it.
- Its quality is poor and you start seeing an adverse impact on media from people who have bought the product.

Example 3: Reputation issues due to harmful products

- Turns out that the last batch of products you started selling can harm customers' health.
- You recalled them and launched a revised version that is "perfectly safe". A week later there is news that a customer has become ill.
- Three retail partners (30% of your distribution) announce that they have stopped working with you.

The way forward – five actions you could take

Organisations will need to find ways to enhance their risk management practices to increase their preparedness to the ever-changing risk landscape. This will require a new way of thinking throughout the organisation across all sectors. Over the coming months we intend to pick the most material intangible assets and explore the subjects in more detail.



Actions to take:

- 1 Assess the total intangible value of your organisation** – what is the value of intangible assets on your balance sheet? Do you have other 'hidden' intangibles that are valuable but not visible on your balance sheet (e.g. human capital and reputation)?
- 2 Form inter-departmental working groups to assess the relative value of different types of intangible assets in your organisation; determine which are critical to your success.**
- 3 Perform 'war-gaming' exercises and horizon scanning to test your resilience to risks impacting intangible assets;** determine your weaknesses and act on them. Try to prevent risks from happening.
- 4 Assess your ability to adequately monitor intangible asset value changes over time and assign each asset a clear risk owner.** Consider using corporate partners, such as communications agencies, to further understand risks and value.
- 5 Determine if there are risks you cannot deal with within the organisation and evaluate what financial or other solutions may be available.**

The types of intangible assets organisations have to protect and the risks impacting these assets are very diverse. Each risk scenario will, therefore, require a unique set of preventative and response measures. Organisations will have to think beyond financial implications to achieve long term success.

Role of insurance

The insurance community will need to help organisations face these challenges, collaborating with subject matter experts, data and analytics providers, and insurance capital.

Once organisational risk management practices become more strategically entrenched in intangible asset management, insurance can play a role as a risk transfer mechanism. As such, insurance can help drive additional commercial benefits that could offset some of the costs of traditional risk management.

Whilst a range of insurance products already exist that can help organisations manage their risks related to reputation, human capital, and IP, it is important that insurers, risk owners, and risk managers work together to further develop these products.

Additional co-operation is required between risk owners, risk managers, and insurers, to better understand the nature of intangible assets (e.g. reputation, human capital, and IP), the new threats they are facing, and what new solutions could be developed to make businesses more resilient.

The way forward – role for insurance

Risk transfer and broader support examples that are already available across industries

Financial services



Protecting directors and officers against claims of wrongdoing from various parties such as shareholders or competitors.

Construction



Compensation of the legal fees of a disagreement with clients or accusations of negligence.

Manufacturing



A response and evacuation service for organisations operating overseas to take their people out of harm's way.

Energy



Supporting technology advancements by protecting against potential under-performance of new innovations.

Tourism



Protection against a claim from an upset client who has been mistakenly put in an overbooked hotel.

Retail



Compensation for lost profit due to an adverse media event that has resulted due to product quality issues.

Technology



Protecting databases and written procedures against potential hacking.

Health and life sciences



Protection against negligent acts, error or omission that may occur during clinical research.

A new intangibles driven world

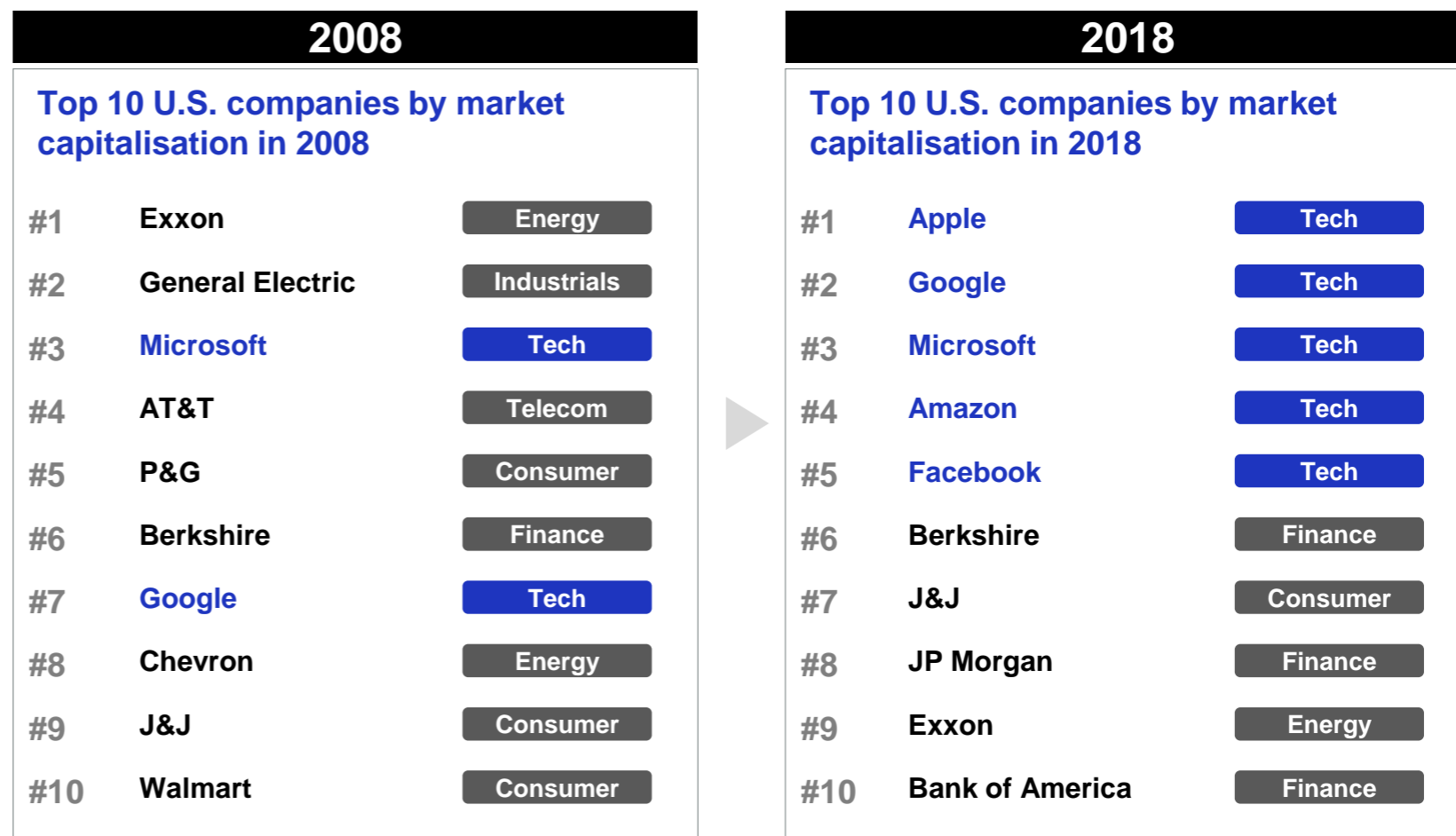
For several decades, businesses around the world have gradually embraced digital business models, opening doors for new technology driven industries like artificial intelligence, robotics, 3D printing, and cryptocurrencies.

This trend has been particularly evident in the last decade, with the largest increases in market capitalisation happening in the technology sector, replacing a range of players from other industries at the top of the league table. This has been true not only in the Western countries (for example, in the U.S., as indicated by the image on the right¹) but across the world with parts of Asia (e.g. China) being a particular hotspot of technological innovation. A significant proportion of this value can be attributed to intangible assets.

Over the past few months, driven by COVID-19 and its restrictions, this shift towards digital business models has accelerated, with organisations switching to remote working, museums and safari parks conducting virtual tours, veterinary clinics switching to tele-medicine, and wine bars opening virtual video-conferencing 'drinking-rooms'.

With this change, organisations suddenly have to deal with protecting employees and information at their homes (instead of a central office), tackling new types of reputational challenges, and dealing with many other problems almost unimaginable a year ago.

A significant shift towards intangibles

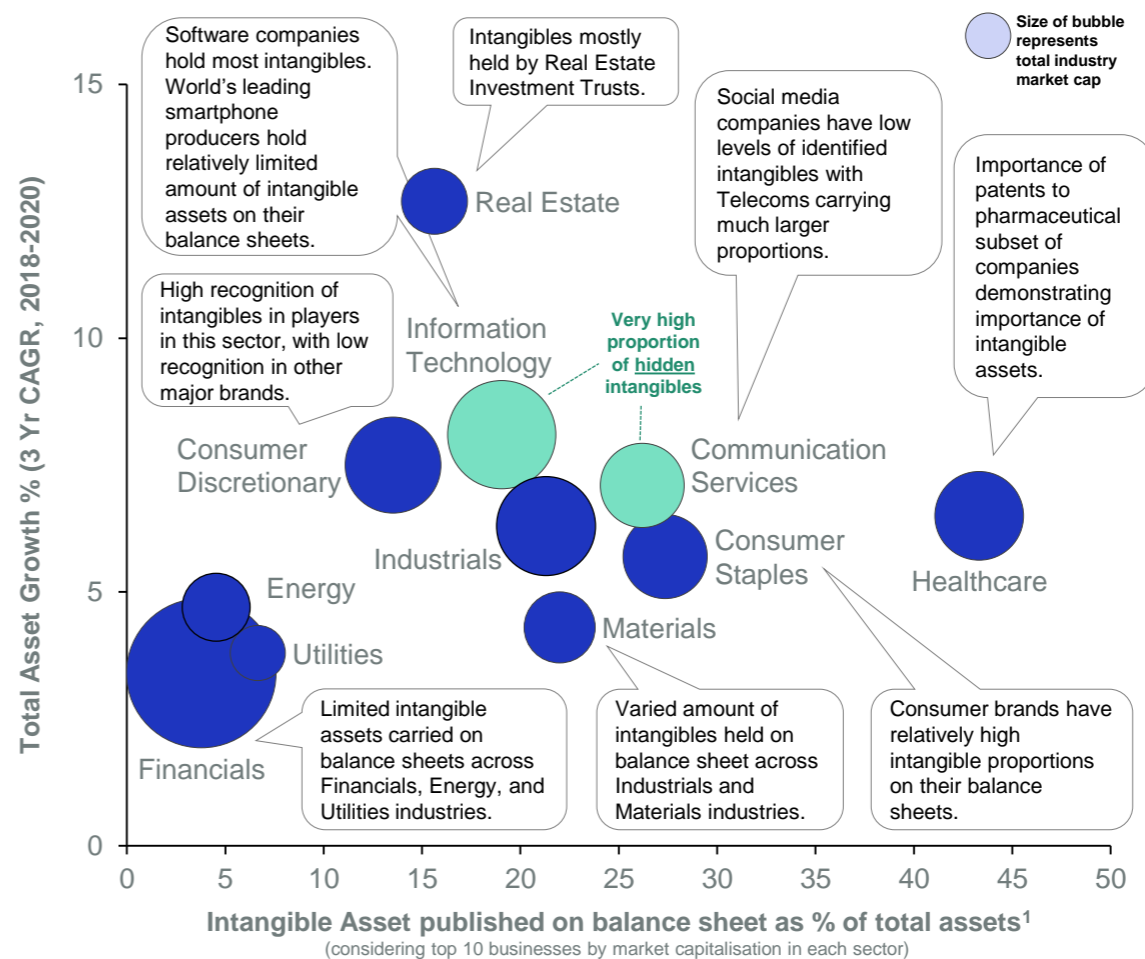


Curating intangible assets will determine long-term business success

The total **value of intangible assets** has increased significantly over the last couple of decades, particularly when considering the so called **'unaccounted intangibles'** (e.g. value of intangible assets that cannot be easily measured and recorded on a balance sheet).

As indicated by the image to the right, even if only considering assets accounted on companies' balance sheets, intangibles play a significant role and can often form **20-45% of the total accounted asset value**. When considering additional intangibles that are hidden (e.g. reputation or knowledge employees have), **this number can be significantly higher – in the region of 85%** according to some estimates.

What it means is that the **value businesses are trying to protect is increasingly related to its intangible assets**. Protection of these assets will increasingly determine the long term competitiveness and success of businesses across all industries.



Source: (1) S&P Capital IQ, KPMG analysis; (2) Ocean Tomo: Intangible Asset Market Value Study

Navigating the intangible world



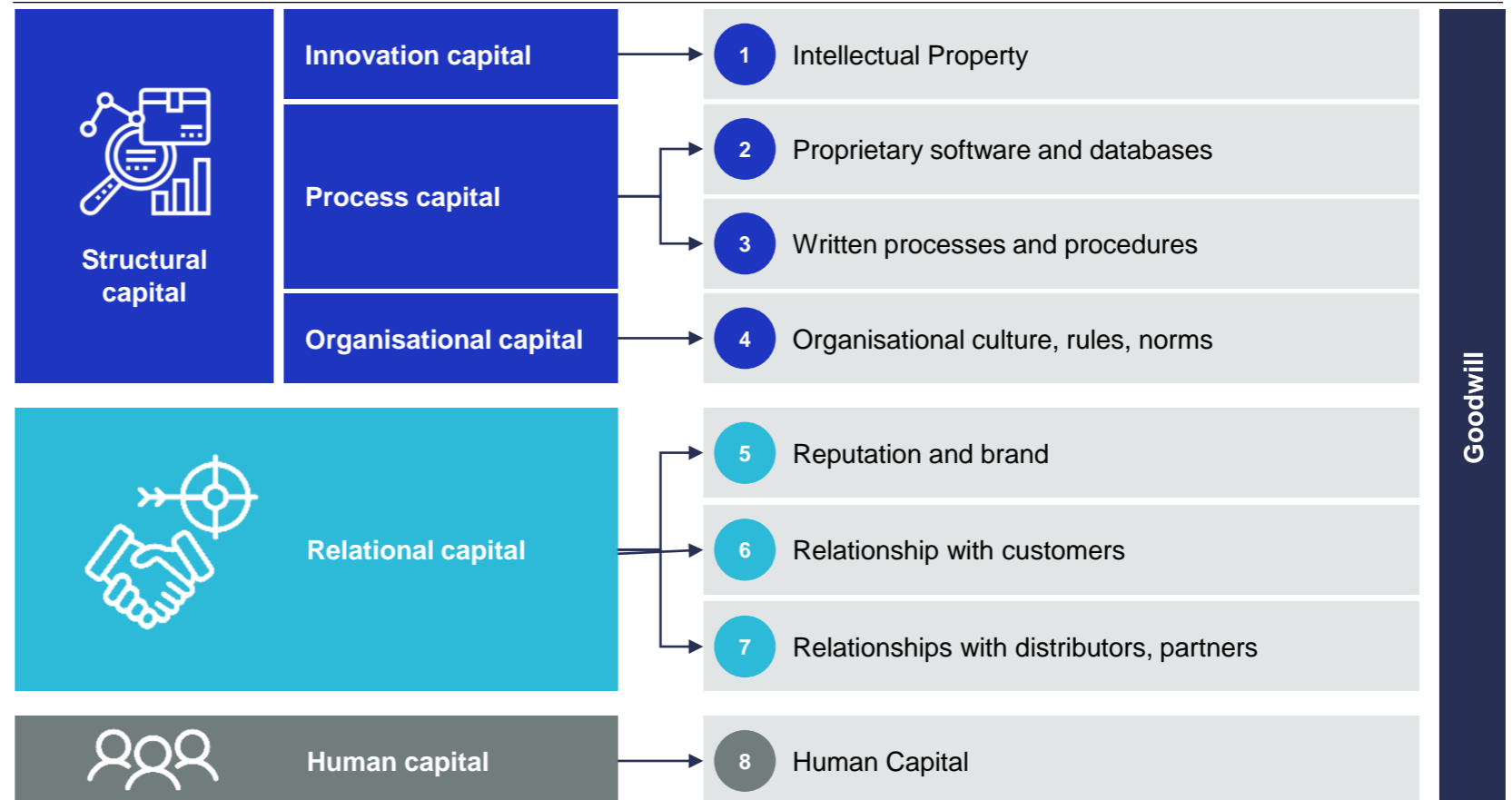
A diverse intangible assets landscape

The intangible value of a business, covering its people (human capital), the value relating to its relationships (relational capital), and everything that is left when the employees go home (structural capital) constitute intangible assets.

All three categories are of critical importance for most organisations across all sectors. Some of these assets are accounted for in organisations' balance sheets while others are hidden and only considered when valuing the future potential of the business.

Some of the hidden assets are brought to light during a merger or acquisition in the form of goodwill. It is usually impossible, however, to understand the component parts of goodwill (e.g. how much of its value is due to structural capital, relational capital, and human capital). This lack of clarity is one of the factors **making the valuation of these assets difficult.**

Many of these hidden assets have enormous value and could become the main drivers of corporate value, particularly if the recent COVID-19 driven changes to digitise many business models stick.



There appear to be **eight distinct categories of intangible assets**, spread across the three main asset categories – structural capital, relational capital, and human capital. These eight categories are explored in further detail in this report.

The most valuable types of intangibles

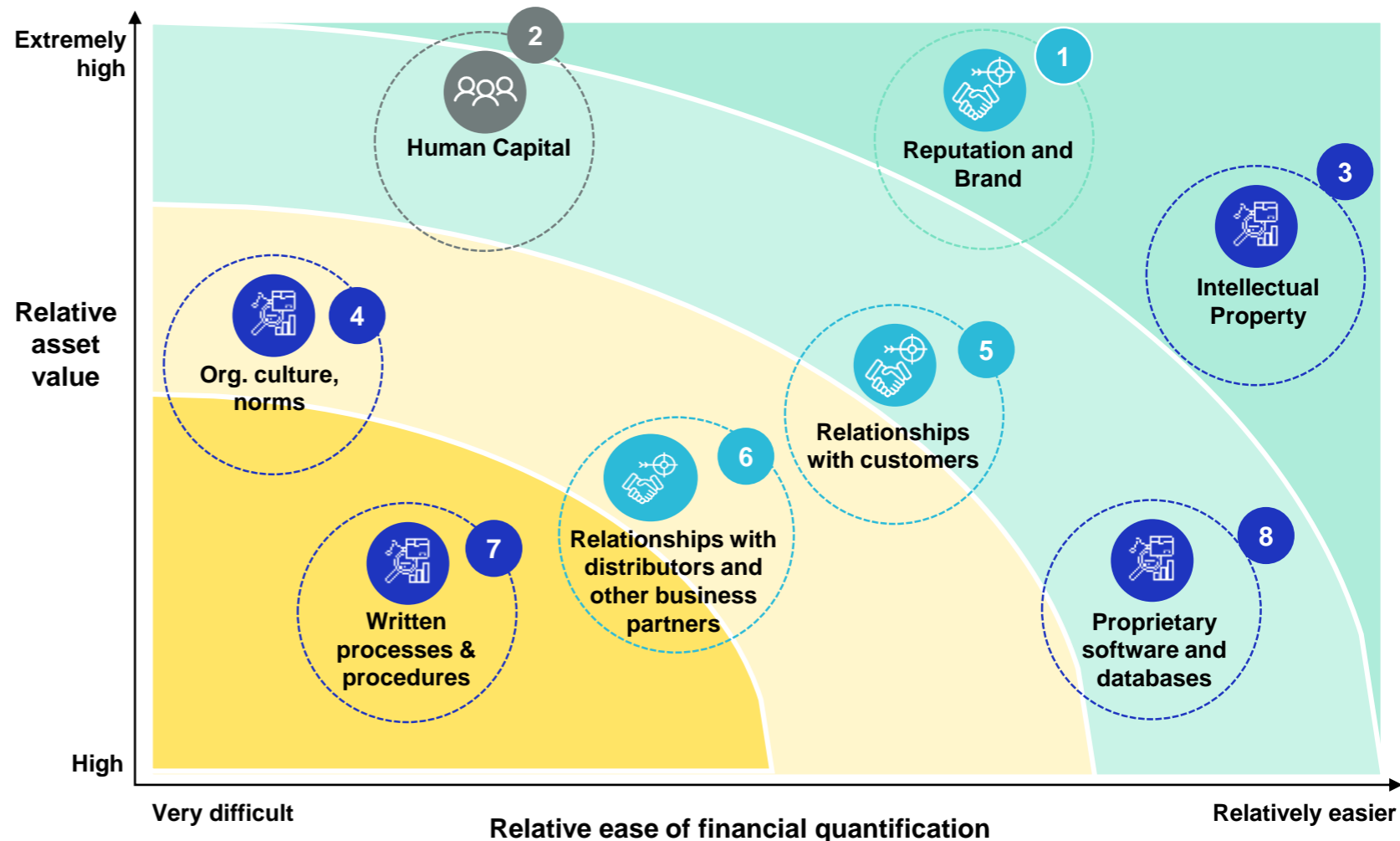
All eight types of intangible assets are highly valuable for businesses, particularly in certain industries. However, based on inputs from specialists in these assets, we have looked at the **relative asset value as well as the relative ease of quantification** of these eight types.

Reputation and brand, human capital, and IP appear to be the most valuable of asset types, although (particularly in the case of human capital) are sometimes difficult to quantify.

Organisational culture is also of a very high importance but similarly to human capital can be very difficult to quantify.

Relationships with distributors and other partners and especially with customers can be extremely important and can drive an increase or decline in the overall reputation. Measuring the strength of these, can be very subjective, however, even with well known techniques like the 'net promoter score'.

Proprietary software and databases and written processes & procedures can also add significant value.



Reputation and brand – one of the most valuable intangible assets

1

There are two types of **reputation**. The first one is the **perception of organisation's capability** or its products and services – this type of reputation tends to sustain for a long period of time and is especially important for customers. The second type is the **perception of organisation's character** or the way it acts – this type of reputation is typically more volatile (can change more frequently) and is especially important for counterparties who work with the organisation.

Traditional **shareholder value** (physical assets, cash flow, etc.) **is increasingly being replaced by broader stakeholder value** which means that organisations are required to manage **broader critical trade-offs and critical risks**, which makes the reputation risk landscape increasingly complex.

Positive (or negative) reputation can have influence on stock price, cost of doing business, customer churn, employee moral, and leadership changes. There is some evidence that **stock price of organisations with high reputation score tends to outperform the rest of the market³**.

Defining the category

Reputation consists of two main categories¹ – (1) **Perception of organisation's capability** (e.g. what I perceive the company is able to offer in the form of products and services) and (2) **Perception of organisation's character** (the way organisation engages with various stakeholders).






Key industries:

- Technology
- Telecommunications
- Health Care
- Consumer Goods
- Financials

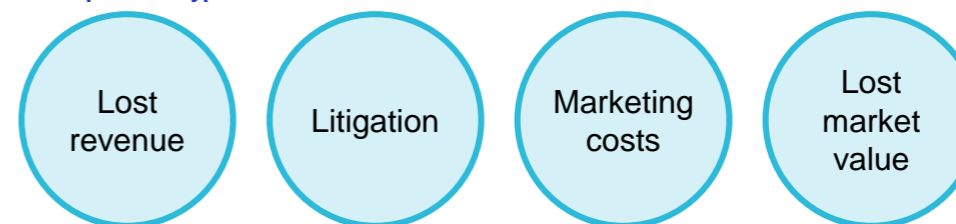
The study by AMO shows that **the corporate brand and reputation is contributing more value to companies in “high future-potential” sectors such as technology, telecom and healthcare**, compared to more immediately predictable sectors like oil & gas, basic materials, industrials or utilities.

It is clear, however, that reputational loss can harm all industries. According to some estimates, the **total value of global reputation exceeds \$16 trillion²**, with especially **high value contribution in “high future-potential” sectors** such as technology, telecom and healthcare. Reputation damage often occurs **following activist events** (e.g. #MeToo, BLM, or data privacy scandals) and can cause significant financial loss if not managed carefully.

Example financial costs related to the #MeToo movement⁴

				
Stream media \$39m	Media corp. \$45m	Film studio Selling of assets	Fashion brand \$250m	Hotel operator \$3.5bn
Loss from cutting ties with a famous actor.	Costs tied to litigation related to harassment allegations.	Forced to sell its assets in the aftermath of the Harvey Weinstein scandal.	Loss of \$250m in market value in one day after a twitter post by a well known actress.	Loss of \$3.5bn in market value following sexual harassment allegations about the CEO.

Example cost types:



Factors that harm an organisation's reputation and brand

1

Reputation based assets can be harmed by a range of factors, including customers perceiving the business to be “on the wrong side” of a particular issue or potentially key employees of the business acting in an illegal or unethical way.

Publicity stemming from a **range of internal or external practices can cause reputational damage**¹, including **employment practices** (e.g. diversity, health & safety), **social issues** (e.g. LGBTQ and women's rights), **corporate conduct** (e.g. business ethics, data privacy), **civic responsibility** (e.g. community outreach), **charity** (e.g. disaster and humanitarian relief), and **environmental stewardship** (e.g. carbon footprint).

Different sectors tend to be impacted by different types of activism events – e.g. Technology is often impacted by Data Privacy related activism while businesses in Financial Services industry often experience events related to business ethics.

Employment practices



Social issues



Corporate conduct



Civic responsibility



Charity / Philanthropy



Environmental stewardship



Cases impacting organisation's capability (Is the product what I expected?)

Smartphone producer



In 2016, a leading electronics producer announced a recall of their smartphone after reports of battery overheating that can result in fires. After replacing the affected phones, reports of overheating continued, resulting in another recall and ceasing production. The total lost revenue was estimated at c.\$17bn².

Steel manufacturer



In 2017, a global steel manufacturer revealed that it had falsified data about the quality of its aluminium, steel and copper products and has misled more than 500 companies, including several major car makers. The scandal resulted in company's share price declining by 30%³.

Retailer of jewellery



A leading jewellery retailer lost 80% of share value in 1980s-1990s and closed hundreds of stores after its CEO made disparaging comments about their own products. The company had to rebrand itself and change its name⁴.

Cases impacting organisation's character (Is the organisation doing what it said it will?)

Social media platform



In March 2018, it was found that a third party had harvested data from c.87million users of a major social media platform and sold it to another third party to use for micro-targeting in the U.S. election. This resulted in a drop of the platform usage and a loss of market value of c.\$119bn⁵.

Major airline



The share price of a major airline dropped by \$1.4bn after a video was posted on social media of the company forcibly ejecting a customer from an overbooked flight⁶.

Leading automaker



In 2015, the company admitted that it used software to give false readings on exhaust emission levels in c.11 million of its cars. The share price dropped by c.40% in a few days. The scandal caused the total loss of c. \$25bn⁷.

Human capital – one of the largest value creators, but difficult to quantify

2

Investments in *human capital* are inputs made in talent, technology and wellbeing that drive competitive advantages.

Organisations are increasingly **concentrating on human capital to win in a competitive market**, partly as new technologies cannot create competitive advantage by themselves.

Both public and private organisations have acknowledged the importance of human capital by **increasing investment in training, health and technology** to understand and better use the skills in the workforce.

While the value of human capital appears significant, **it's precise quantification is often difficult**. European countries **spend about 5% of their GDP on education¹ and 7% on healthcare²**, whilst many organisations make considerable investments in learning and development.

Defining the category

Human Capital is the skills, knowledge, experience and attributes possessed by employees, viewed in terms of their value or cost to an organisation.

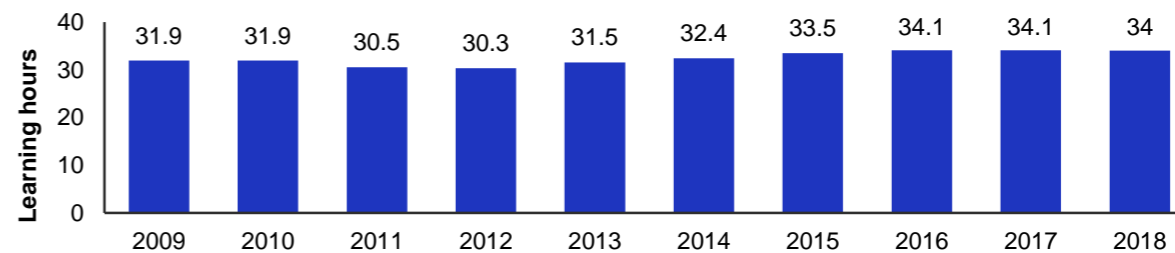
There are four types of human capital:

- Implicit and tacit knowledge
- Capability and skills
- Health
- Attitudes

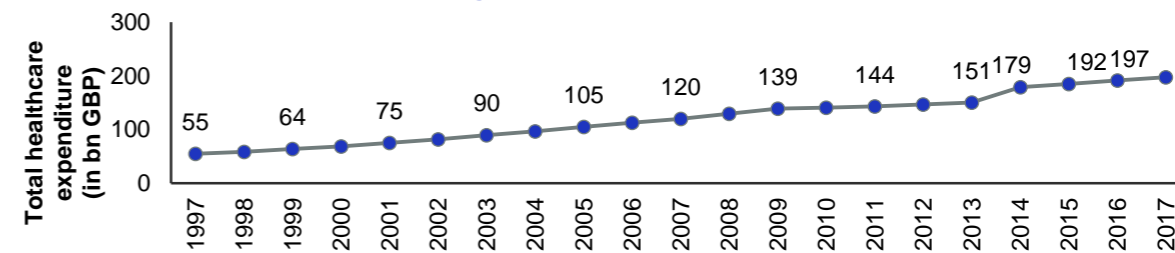
Key industries:

- Relevant across most sectors, particularly knowledge industries

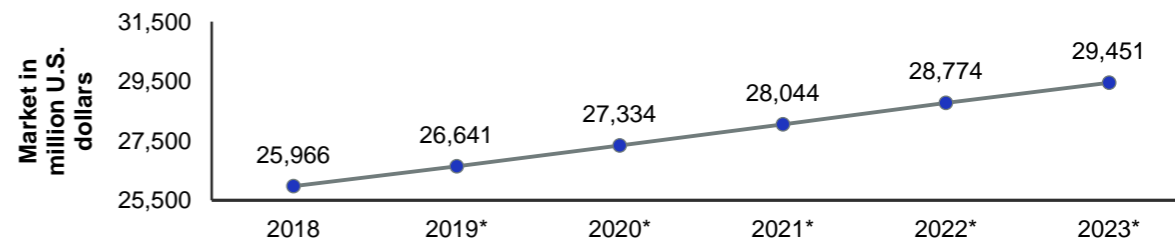
Learning hours used per employee worldwide from 2008 to 2018⁴



Healthcare expenditure in the United Kingdom 1997 to 2017 (in billion GBP)⁵



Human Capital management market worldwide 2018-2022 (in m \$U.S.)⁶



Source: (1) European Commission; (2) Eurostat; (3) CIPD Absence Management Annual Survey; (4) ATD; (5) Office for National Statistics; (6) Statista

Human capital – five main types of risks causing significant loss

2

There are five main risks that typically impact organisation's human capital, including:

- **Employees leaving** – losing skills and knowledge as a result of employees leaving the company without codifying their knowledge.
- **Migration** – migration of the best talent can make poor places poorer and richer places richer. This can be both a threat or an opportunity for businesses.
- **Inability to keep up with innovation** – lagging behind competition when technology and/or people can not keep up with evolving trends.
- **Illness and mental health** – loss of productivity as a result of injuries or mental health issues.
- **Disruption to conventional working arrangements** – inability to adapt to external events, for example, political or health crises.

Human capital risks are especially evident in knowledge intensive sectors, particularly in organisations that struggle to transform human capital into structural capital (e.g. by codifying knowledge into data / processes).

Employees leaving



Human capital loss due to employees joining a competitor

International law firm



- In April 2018, an international law firm announced that they have **brought in 50 lawyers from another law firm, including more than 20 partners**, thereby adding \$100m in revenue. The other law firm, however, dismissed these revenue projections, saying that the revenue generated by these lawyers was significantly lower and added that some of the work handled by the departing attorneys has already been successfully reallocated within the firm^{1,2}.

Migration



Human capital loss due to migration

Global bank



- A major global bank announced it would be **relocating its UK ring-fenced bank to Birmingham** from London.
- Relevant existing employees were offered up to £2,500 to move after **less than half of staff accepted the relocation offer**, with the bank finding difficulties in **filling specialist roles and capabilities**.

Inability to keep up with innovation



COVID-19 pandemic and implications to mental health

Health care workers



- A recent survey study published in JAMA Network Open indicated that **health care workers in Wuhan and other regions of China reported experiencing significant psychological burden related to the COVID-19 pandemic**. A significant proportion of respondents reported the following symptoms: depression (50.4%), anxiety (44.6%), insomnia (34%), and distress (71.5%)³.
- Similar mental health challenges have been observed among health care workers in other countries and to a smaller extent could **influence employees in other professions, leading to a significant human capital impact across industries**.

Illness and mental health



Disruption to conventional working arrangements



Intellectual property – one of the most valuable intangibles and easier to quantify

3

Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. **The traditional definition includes six types of IP:** copyrights, patents, trademarks, industrial designs, geographical indications, and trade secrets.

The total value of IP is significant and growing in most parts of the world, particularly in Asia (especially China). Manufacturing industry (particularly, tech related) is the main hotspot for IP related applications. Most major OECD countries spend 2-3% of their GDP in R&D which is a good indication of the total value of trade secrets (just one type of IP).

Furthermore, **the total cost of IP litigation continues to rise, with litigation claims getting bigger and more complex.** The total revenue lost due to content piracy (e.g. in film and music) is measured in tens of billions of pounds and is increasing fast.



Defining the category

There are six traditional types of intellectual property:

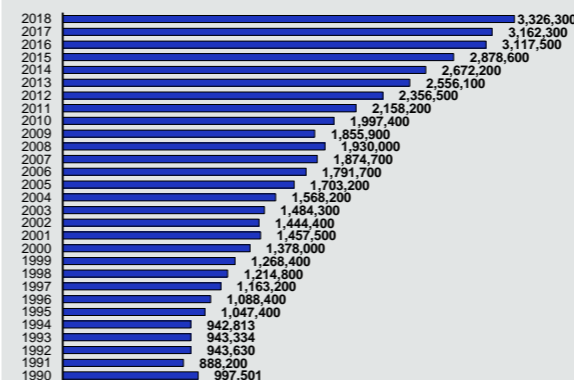
- Copyrights
- Patents
- Trademarks
- Industrial designs
- Geographical indications
- Trade secrets

Key industries:

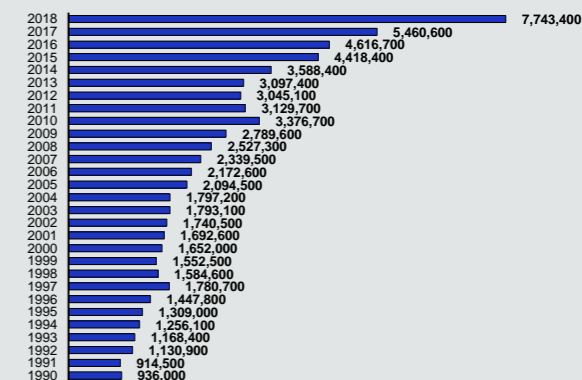
- Manufacturing
- Music, video, gaming
- Renewable energy

The global importance of **patents, trademarks, and industrial designs** has increased significantly over the last 30 years:

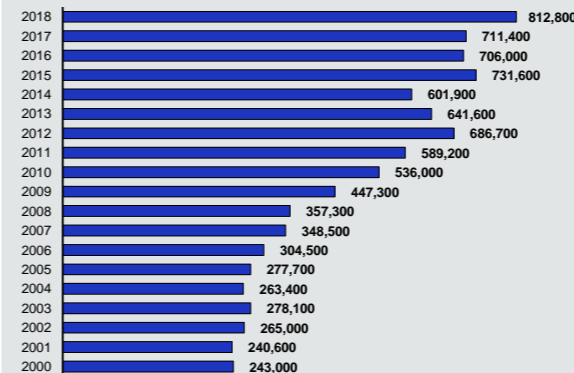
Number of patent applications worldwide



Number of trademark grants worldwide



Number of industrial design grants worldwide



Only 3 out of the 20 most patent-intensive industries in the EU are related to services. The other 17 are sub-categories of manufacturing, including communication equipment which is the most patent intensive type of manufacturing.

Intellectual property – five main risks that may cause significant harm

3

There are five main risks that typically impact organisation's IP, including:

- **IP infringement** – using or selling a patented invention without permission from the party that holds the patent.
- **Trademark infringement** – using a trademark that is identical or very similar to that owned by another party.
- **Copyright infringement** – reproducing, distributing, or displaying a work without permission from the copyright holder.
- **Piracy** – unauthorised copying or distribution of work that is protected by copyright (e.g. video and music).
- **Trade secret appropriation** – discovering trade secrets through unlawful methods, including industrial espionage or through lawful methods (e.g. reengineering).

The total cost of IP litigation continues to rise (the total spend on IP litigation has increased by 15% from 2016 and 2019), claims are getting bigger and more complex, including spanning multiple jurisdictions⁴.

Patent infringement



Trademark infringement



Copyright infringement



Piracy



Trade secret Appropriation



Piracy⁽¹⁾



- Game of Thrones season 7 was **pirated 1.03bn times**.
- The season 7 premiere was watched legally by **16.1m viewers** but downloaded or streamed illegally by **187.4m viewers**.
- The speed of piracy was remarkable, with the season 7 premiere being illegally downloaded and streamed more than **90 million times** within three days of it airing.

Trade secret appropriation⁽²⁾



- A businessman and a co-working scientist stole a **leading chemical manufacturer's secret method of making product whitener titanium dioxide** and sold it to a Chinese competitor for more than £12m.
- The trade secret was stolen by starting a new company and **hiring company's ex employees** – several scientists were involved in the case, one of which committed suicide.

Trademark infringement⁽³⁾



- A leading sportswear manufacturer filed a lawsuit against a clothing retailer alleging that the retailer's products, **which contain a "three stripe" design, constitute "counterfeit" products**.
- The company claimed that the retailer is creating products that are **"confusingly similar"** and is also selling "repurposed" pieces that are actually counterfeit.

Patent infringement⁽⁴⁾



- Two smartphone manufacturers engaged in a **seven year long patent fight over copying a specific smartphone model, primarily focused on specific features**, including 'tap to zoom' and the home screen 'app grid'. The case was built around whether one of the companies copied a range of competitor's features to gain a competitive edge.

Organisational culture and norms can add or destroy value across all industries but are very difficult to quantify

4

Organisational culture refers to the **shared values, behaviours and beliefs** that characterise the nature of an organisation. It can be summed up as “The way we do things around here”.

Research shows that **people whose goals and beliefs fit with their companies are more satisfied with their jobs**, are less likely to leave and are more effective (41% reduction in absenteeism and 17% increase in productivity¹).

Effective culture has competitive advantages as it accounts for **20-30% of the differential in corporate performance** when compared with “culturally unremarkable” competitors². Thanks to higher commitment, employees achieve better customer relationships that translate into a **10% increase in customer ratings and a 20% increase in sales¹**.

While the value of culture appears significant, its **precise quantification is often difficult**.

Defining the category

Culture can be reflected in an organisation’s policies, processes and structures; its approach to risk management; and the conduct of individual employees. It is often codified in two key artefacts.

- **Vision:** Written statement describing the type of organisation the business aspires to be. Sometimes called a ‘mission statement’.
- **Values:** Codified agreement of employees on what they believe and how they will act.

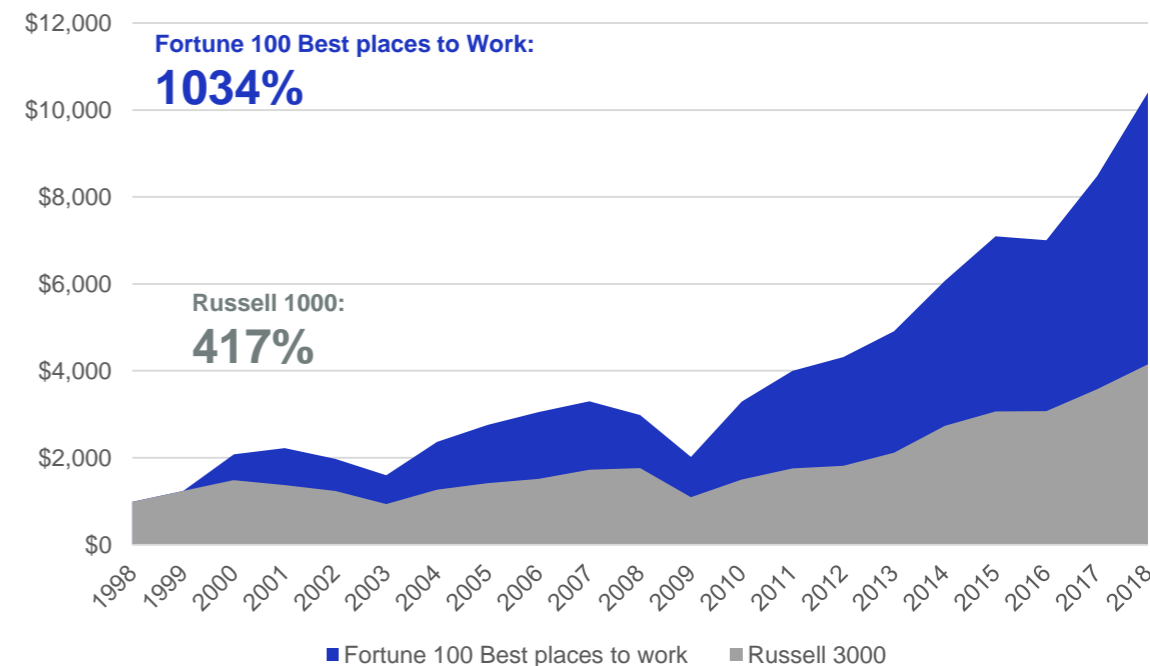
Key industries:

- Applies to all industries.

While culture can be very different across companies, it **often creates higher employee commitment** (resulting in higher profits) and **higher talent retention** (resulting in lower replacement costs).

Companies that are recognised to be the best places to work show **better stock market returns** than the average market. Furthermore, **culture has a significant impact on employee retention which can be a significant cost**, considering the average replacement costs of 10%-30% of employee’s salary.

Stocks market return, 1998-2018 of great place to work companies and other top companies⁴



Cultures particularly are vulnerable during periods of significant change

4

Cultures are vulnerable during periods of tremendous change and growth and can impact fairness, then credibility, and finally respect.

There are several key risks that can impact organisational culture, including:

- **Leadership change** – a change in leadership can impact the organisational culture with the loss of a CEO, and may clash with the culture of a new leader.
- **M&A** – confronting a set of values with another set during merger, which may change the purpose and the mission statement of the firm.
- **Rapid growth** – onboarding new team members at a rapid pace while preserving organisation's culture can often be seen as a challenge.
- **Employee lay-offs and cost cutting** – rebuilding morale and restoring productivity after lay-offs of staff, and maintaining trust are key challenges that influence organisation's culture.

Leadership change



M&A



Rapid growth



Employee lay-offs and cost cutting



Culture clash through a merger

- In 1998, the German car maker Daimler-Benz AG and one of the leading American automotive companies Chrysler Corporation **announced a merger to form DaimlerChrysler AG with an intention to improve the long term competitiveness of the two companies**¹.
- One of the key challenges of a successful merger was the **integration of two very different cultures** that existed in the two companies, made even more challenging by an early announcement by Daimler that **the “merger of equals” is actually a take-over of Chrysler by Daimler**². Ultimately, the cultural differences turned out to be too significant and the merger ended up deteriorating the value of Chrysler business.

“The personality of the organisations were very different, even in communications. Their style was to lock in early on what you want to do and execute to the nth degree. Our personality was to keep creating, keep innovating, maybe we'll come up with a better way or more clever idea and trust that we can pull it off in time for the execution date. That was a very different style. Both were good, it's just that they were different. That made it interesting trying to get consensus around something. Or if somebody at Chrysler came up with a better idea for how to do something, it was tough because [Daimler-Benz] had already locked in on the direction they wanted to go.

Steve Harris, Chrysler's vice president of public relations⁴

One illustration of the cultural clashes in the two companies is some of articles that appeared in the media about the new executive team ripping out the recently installed smoke detectors on the executive floor at Chrysler headquarters in Detroit so they could smoke cigars with red wine in the evenings⁵.

- In 2007, 9 years after the original merger, a private equity firm Cerberus Capital Management reached an agreement with DaimlerChrysler for an **acquisition of Chrysler for \$7.4bn, a significant downgrade of the original acquisition price of \$37bn**, ending one of the least successful mergers in the automotive industry history³.

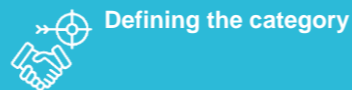
Customer relationships – a critical value driver

5

Relationships with customers is the ongoing connection between the organisation and its customers built through direct interaction with customers by the organisation's leadership and employees as well as marketing communication.

Proactive customer relationship management leads to increased sales performance and provides foundation for business value. There is **evidence that companies using a mobile CRM** (and are, therefore, more proactive) are more successful at sales and an increasing number of businesses are recognising the value of active relationship management and are **increasing investment in CRM systems**¹.

Strong customer relationships translate into increased loyalty and help to build trust and, by extension, broader reputation. Furthermore, high customer loyalty can then lead to **increased customer advocacy and greater lifetime value**.



Defining the category

The strength of the relationships is often measured by looking at customer loyalty (likelihood of doing a repeat business with the organisation) and customer satisfaction with the products / services received.

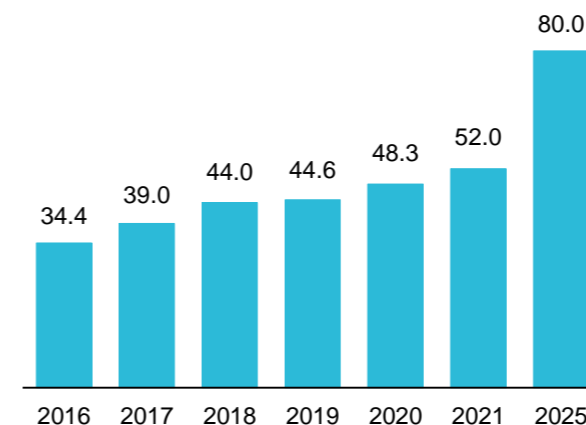
A widely adopted way of measuring the strength of customer relationship loyalty is the net promoter score (NPS) which is adopted by a large number of businesses worldwide.

Key industries:

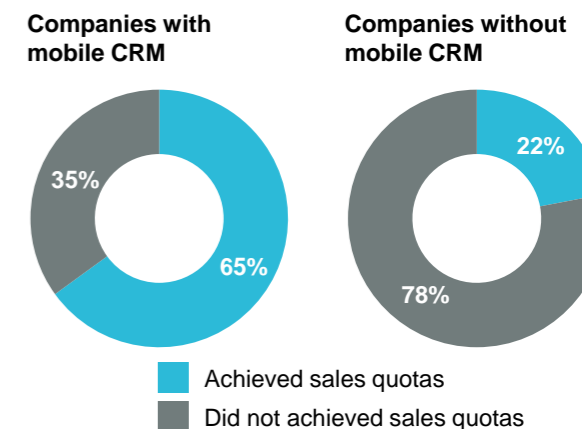
- Highly relevant across all industries

CRM market revenue is forecast to grow significantly in the next 5 years and could exceed \$80 bn¹. There is evidence that companies using a mobile CRM (which is available 'on the go') more often achieved their sales quotas (in 65% cases) compared to 22% of companies using non-mobile CRM². Strong relationships help organisations retain customers, providing clear financial benefits.

CRM market revenue in the World from 2016 to 2021 (in billion U.S. Dollars)¹



% of businesses achieving their sales quotas



5x

Acquiring new customers can cost up to 5 times more than retaining existing customers – loyalty brings clear financial benefits³.

306%

Customers who are emotionally connected with the organisation have 306% better lifetime value⁴.

Customer relationships – a range of indicators to track

5

There is a range of indicators that can show a decline in the strength of customer relationships, including:

- 1. Declining retention rate** – the number of customers who tend to come back and perform repeat purchases of organisation's products / services is declining.
- 2. Declining customer lifetime value** – the total profit that the organisation expects to generate from a customer is declining.
- 3. Declining net promoter score** – the likelihood of organisation's customers referring to other people is declining.

Poor customer relationships can in turn transform into reputational damage which can impact broader organisational trust from other stakeholders.

Declining retention rate



Declining customer lifetime value



Declining net promoter score



Destroying customer loyalty through loyalty schemes

- In October 2014, a leading UK grocery retailer decided to change the terms and conditions of its successful loyalty card scheme by reducing the number of points customers get for each £1 spent by 50%¹.
- The move caused an outcry from its customers who reacted strongly on social media:

Example tweets:

"Thanks for halving our points. I'll be half as loyal in return. Oh and no points for bag recycling #unenviro"

"BAD news halving the points. After decades of being a loyal customer I'm going to start shopping at competitors #dissapointed"

"Nice that you're halving points. Bye bye. Hello rivals. I'm off."

- Retailer's **revenue and profit declined** after the move although the specific contribution of the loyalty scheme changes is uncertain.

Strong business relationships determine reputation financial success

6

Relationships with distributors and other business partners is a practice of forging **mutually beneficial connections** with parties that have a stake in common interest with the organisation.

Broader stakeholder management has become increasingly important for businesses across industries and geographies and has even started impacting the corporate governance. For example, one of the recent changes in the UK corporate governance landscape, is the introduction of the annual reporting requirement in relation to section 172 of the Companies Act 2006, known as the s172 Director's Duty, which encourages businesses to think about benefiting the interests of broader stakeholders.

The strength of relationships with distributors and other business partners **increasingly determines the strength of organisation's reputation and financial success.**

Defining the category

Relationships with distributors and other business partners are used to **generate direct financial benefits** (e.g. in the case of distribution partners, suppliers, etc.) as well as to **amplify organisation's public voice** (e.g. through NGOs, industry associations, consumer groups, community groups, universities, government institutions, etc.).

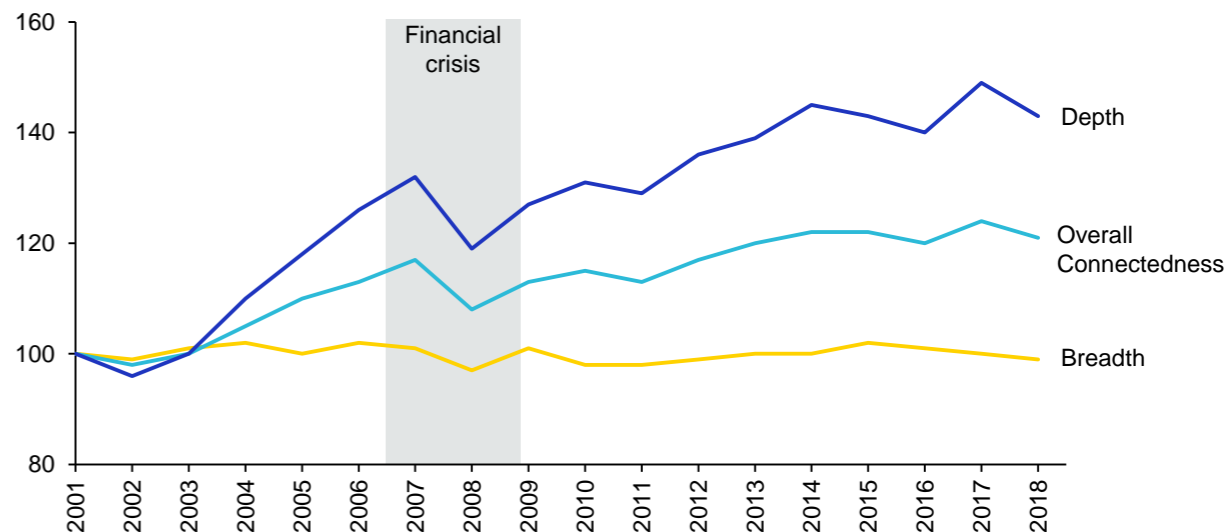
Key industries:

- Manufacturing
- Financial services
- Transport

The **business partner / stakeholder landscape is getting broader** (e.g. the number of journalists is increasing in the UK) and more interconnected, requiring organisations to engage in a complex relationship management process when looking after their public trust.

Global connectedness has increased significantly over the last 20 years, even considering a significant drop during the global financial crisis. Even though there was a slight drop in 2018 due to shrinking international capital flows (partially due to changing U.S. tax policy), **the index was still close to the record high showed in 2017**. The globalisation of information flow, however, kept increasing in 2018, indicating increasing connectedness of stakeholders of global organisations.

DHL Global Connectedness Index²



Depth measures % of flows (and accumulated stocks) that cross national borders; **breadth** captures geographical distribution

Business relationships – a range of indicators to track

6

There is a range of indicators that can show a decline in the strength of relationships with distributors and other business partners, including:

- 1. Stakeholder perception vs performance** – how stakeholder perception about the actions the organisation has taken differs from the actual performance (e.g. the organisation might have put specific procedures in place that are important for distributors but the distributors might not be informed that it is the case, despite there being contractual obligations to comply with the organisation's policies and procedures).
- 2. Declining net promoter score** – the likelihood of organisation's business partners referring to other partners is declining.

As supply chains become more complex, managing stakeholder relationships is sometimes becoming as important if not more important than managing shareholders. Contracts govern the majority of stakeholder relationships – at least at the date of signature, but **most organisations do not have the processes and controls in place to proactively manage their in-life contracts** and thereby their stakeholder relationships. Yet **deterioration of these relationships can cause significant loss of corporate value.**

Stakeholder perception vs performance



Declining net promoter score



Declining corporate reputation due to events in the supply chain

- In **2013 a large garment factory collapses in Bangladesh, killing 1,134 people** and injuring an additional 2,500. The tragedy exposed extremely poor worker safety standards and impacted the reputation of a plethora of western high street fashion brands¹.
- The event **resulted in a public outcry towards fashion brands** with a range of public figures criticising the existing supply chain practices:



Example messages^{2,3}:

Pope condemns 'slave labour' in Bangladesh

AFP | 10:00 AM GMT
Last Updated at May 1, 2013 10:00:07

"Consumers have more power than they think when it comes to making choices about where they shop."

Nick Clegg, then UK Deputy PM

- Responding to the incident, a coalition of investors from 12 countries with c. \$4.5 trillion in assets under management united to drive a response through the Bangladesh Investor Initiative. Recommendations included for fashion retailers to **publicly disclose all their suppliers**⁴. A range of fashion businesses responded by **tightening their supply chain management practices**.

Destroying relationships with employees

- After Prime Minister Boris Johnson announced that all businesses that are not essential must close, following the escalation of COVID-19 pandemic, a major sports-goods retailer sent e-mails to their staff announcing that their shops will stay open. This started an immediate outcry in the media and particularly among the staff. As one employee explained: "I am outraged to work and commit to a company for over three years to be given no consideration for our health at all; I am going to think very carefully if this is a company I want to stay with"⁵.

Written processes and procedures – increase productivity and innovation potential

7

Written processes and operating procedures provide employees step-by-step instructions that act as guidelines to perform specific tasks. Following these written guidelines, can bring a range of benefits to businesses.

Absence of written processes and procedures can result in a range of challenges for organisations, including **accumulation of waste within processes, inability to share best practice, inability to release free capacity that could be used elsewhere, and persistent errors and variability problems among staff.**

Furthermore, a lack of articulated procedures will **amplify the human capital risk** as key employees could leave the organisation and take their knowledge with them¹. There is also evidence that standard operating procedures can **make organisations more flexible**². Even though standards bring significant positive value, their quantification is often subjective.



Defining the category

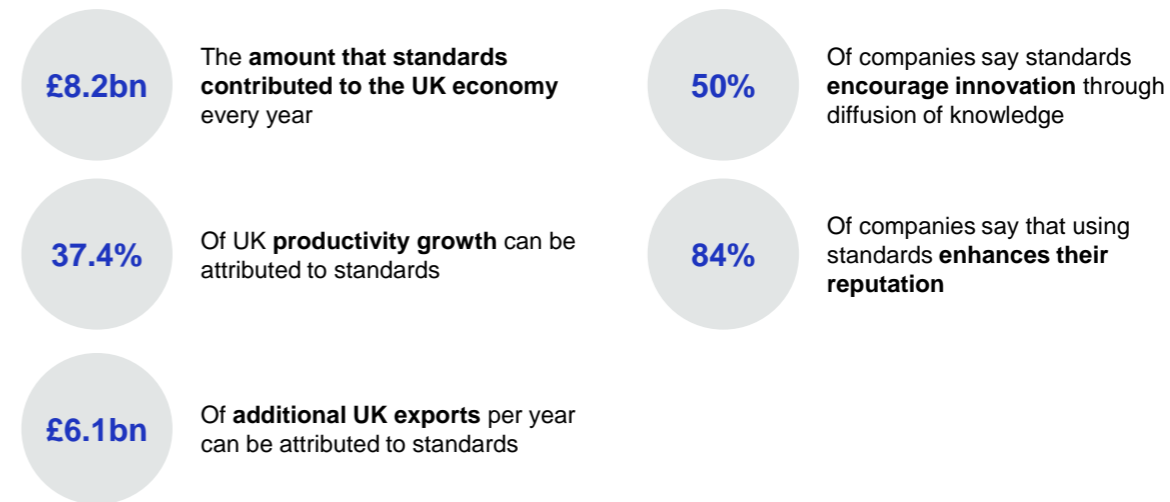
Written processes & procedures can bring a range of benefits, including: reduced **variability**, increased **productivity**, consistent **customer experience and outcomes**; greater **staff engagement** with the culture of improvement; encouraged **sharing of tips, hints, shortcuts**, etc. among employees; reduced **leakage**; support with **training**; reduced **errors**; reduced **risk** and increased **control**.

Key industries:

- Applies to most industries but particularly important in manufacturing

Research shows that over the past decades, the use of standards has increased considerably in the UK, bringing significant positive microeconomic and macroeconomic impact. According to a study by BSI, the **most productive sectors use standards the most** – for example, aerospace and defence increased productivity by 20.1% between 2005 and 2014, while the UK average was 4.9%³. Since the introduction of the first standard in 1903, the BSI standards catalogue has grown exponentially from less than 100 publications in 1920 to more than 35,000 publications in 2014. This indicates the **increasing value of standardised processes as a component of intangible capital**.

Economic value of standards³:



Written processes and procedures are susceptible to a range of internal and external risks

7

There are several potential risks related to written processes and procedures, including:

- **Loss of written documents** – loss of electronic data related to written processes due to external factors (e.g. cyber hack) or internal factors (e.g. accidental deletion of data).
- **Infrequent updates to processes** – regular updates are key to maximise the value of this intangible asset. Infrequent updates reduce the value and can lead to processes becoming obsolete.
- **Insufficient employee training to follow the processes or insufficient embedment in the leadership team** to make sure that the written processes are being followed.
- **Employees replicating processes for the new employer** after leaving the organisation.
- **Corporate espionage** – e.g. an organisation stealing another organisation's procedures that could bring competitive advantages.

Loss of written documents



Infrequent updates to processes



Lack of training or leadership support



Employees replicating processes elsewhere



Corporate espionage



Failure to follow processes

- In 2016, the FDA team in the U.S. inspected a plant of India based pharmaceuticals company Lupin and **made nine critical observations about inadequacies and failure to follow standard operating procedures**. These procedures included activities related to testing, and cleaning and maintenance of equipment¹.
- Further adverse observations were made in the next few years, including about employees providing false and misleading information – allegedly due to employees being afraid of the inspection².
- Following the event, the company was hit by **immediate negative publicity**, and caused **similar concerns about other Indian pharmaceutical companies**².

Proprietary software and databases – particularly important for the tech sector

8

Proprietary software is non-free computer software where the publisher or owner retains the intellectual property rights – generally in the form of copyright of the source code.

Proprietary databases are non-public, protected sets of data which are usually strictly restricted in terms to the end user.

The Technology and related sectors are heavily reliant on the development and use of proprietary software and databases – particularly where **entire business models are dependent on the legal protections afforded** to these assets (e.g. software vendors such as Salesforce or database providers such as Refinitiv).

Many companies across most sectors are increasingly **better understanding the value of data** they hold, and are seeking ways to gain **insights which can inform commercial decisions and increase their competitive edge**.



Defining the category

The enjoyment of the property rights are typically through:

- Licence revenue paid by other parties to use the software/access the database (e.g. Microsoft Office, Experian); and/or.
- Internal use for competitive advantage (e.g. Google Search code, Netflix viewer habit data).

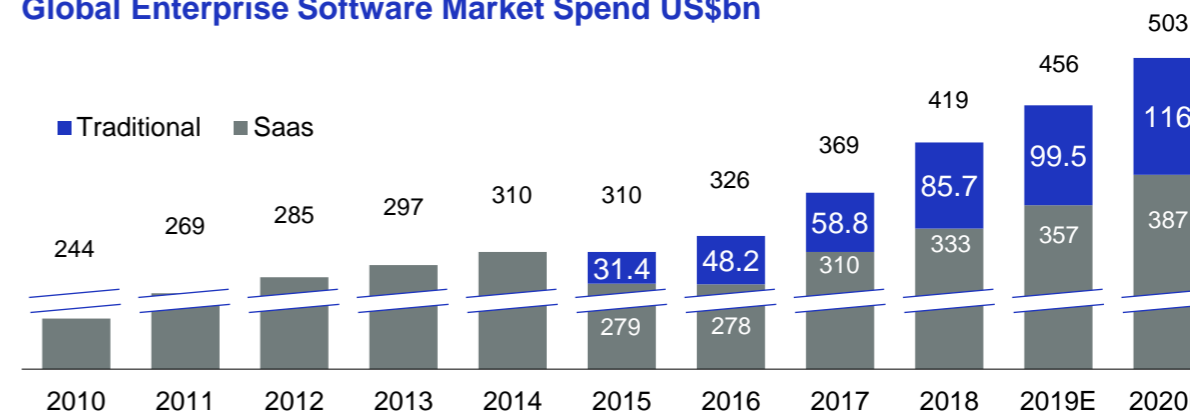
Key industries:

- Technology.

The market for software continues to grow, with cloud-based software-as-a-service a key growth driver as traditional vendors compete with a range of new market entrants.

Meanwhile, the sheer amount of **data generated each day by increased connectivity** is providing opportunities for companies to **organise, analyse and monetise** this using proprietary databases.

Global Enterprise Software Market Spend US\$bn



The Global Data "Swamp"

- 40 trillion** Gigabytes of data in the world exist today (40 zettabytes)
- > Oil** The Economist claims that Data has overtaken Oil as the world's most valuable resource
- 90%** Of all data was created in the last two years – indicative of the exponential growth of data generation and capture
- 1.2 bn years** The amount of collective time internet users spent online in 2019

Proprietary software and databases – Five main risks

8

There are five main risks that typically impact organisation's proprietary software and databases, including:

- **Piracy** – illegal use of software or database without appropriate authorisation/payment; counterfeit copying of software.
- **Licence / contract disputes** – misuse of asset outside of agreed terms and conditions; dispute with third party developer around ownership of asset.
- **Copyright infringement** – copyright infringement of source code, including non-literal elements such as structure, sequence and organisation.
- **Data privacy** – security around the handling of data – including consent, notice and regulatory obligations.
- **Data theft** – theft or leakage of confidential data, either by internal employees or external hacking.

The potential loss of internal databases can not only lead to productivity loss and business interruption but can significantly **harm an organisation's reputation**.

Piracy



Licence/contract disputes



Copyright infringement



Data privacy



Data theft



Loss of databases

- In early 2019, an unknown hacker hit an e-mail provider business, **wiping out its servers in the U.S., including the back-up systems**. The attack was later also attempted at company's servers in the Netherlands. The attack did not include a ransom request and intended to destroy electronic files¹.
- As the result of the attack, **all content in customer mailboxes was deleted**.

Comment from the business:

"At this time, the attacker has formatted all disks on every server. Every VM is lost. Every file server is lost, every backup server is lost. NL was 100% hosted with a vastly smaller dataset. NL backups by the provider were intact, and service should be up there."

/ by @VFEmail on Twitter, Feb 11, 2019 /

Comment from the owner:

"Yes, @VFEmail is effectively gone. It will likely not return. I never thought anyone would care about my labor of love so much that they'd want to completely and thoroughly destroy it."

/ by @Havokmon on Twitter, Feb 12, 2019 /

- In 2014, **a similar attack hit another code hosting and software collaboration platform, forcing the company to announce that it is going out of business**: *"As such at this point in time we have no alternative but to cease trading and concentrate on supporting our affected customers in exporting any remaining data they have left with us"*².

How to protect yourself

Significant protection gaps

Organisations are often geared to using known public mechanisms to protect intangible assets (e.g. patent registration) and often struggle to protect intangibles where system protection measures are insufficient and where more proactive actions are required.

This is partially due to organisations' internal discipline to building sufficiently advanced preventative tools and partially due to the speed of change in the broader threat landscape.

Even though intangibles are becoming increasingly valuable and increasingly critical as drivers of competitive strength in the market (and, therefore, determinants of corporate value), they are sometimes overlooked in internal risk management practices.

Furthermore, there is sometimes a disconnect between the actual risk owner (e.g. a Head of Marketing or a CFO looking after organisation's reputation) and a risk manager who takes care of broader risk programmes in the organisation as their views about what's important are not always the same.

Major protection gaps / challenges across the three most valuable categories of intangibles



Reputation and brand

- Identifying the right reputation trigger (internal and external) and understanding the historical context of external reputational events, particularly those related to social activism
- Addressing the full economic impact of a reputational event



Human Capital

- Codification of knowledge
- Insufficient HR
- Analytics
- Training and education
- Non-key person
- Protection
- Mental health issues
- Remote working



Intellectual Property

- Counterfeiting
- Patent trolls
- Reverse engineering of trade secrets
- Online piracy

How businesses are managing reputational risk?

Businesses that only manage adverse media tend to fail in protecting their reputation. **Success depends on proactive reputation management.**



Do you follow these fundamentals of reputation management?

Do you actively manage your organisation's behaviours?

Example of failure in executing:

A car manufacturer lying about carbon emissions or a financial Institution paying large bonuses ignoring the public sentiment about the issue.

YES

NO

Are you developing network strategies and proactively managing choices on who the organisation engages with?

Example of failure in executing:

A social media business engaging with a third party that can use its data in an unethical way, causing a public outcry.

YES

NO

Are you driving authenticity in narratives?

Example of failure in executing:

Narratives get ahead of the actuality, resulting in a business creating a reality-expectation gap that harms reputation.

YES

NO

Typical risk management activities:

Many organisations approach their reputation challenges in a reactive way after an adverse event in the media or elsewhere. For this, some organisations use their internal PR / comms / marketing function, while others engage with third party reputation and brand agencies.

Broader activities (prevention):

Organisations that are the most advanced in their reputation management, use proactive methods to predict potential adverse behaviours in the organisation. Boards of such organisations are increasingly interested in their reputation value and want to understand how to measure it, devolving responsibility to groups of intra-departmental reputational stakeholders and involving risk management. They are also "horizon-scanning" regularly so that no significant social movements outside the business are missed. Individuals from the public (as diverse a group as possible) can give a sense of the changing sentiment outside the organisation.

Insurance

When the usual activities are insufficient, some organisations turn to insurance. The existing reputation insurance coverage focuses on compensating direct expenses related to mitigating the harm after a reputational event but might not always cover the full cost of the event itself. More recently, several innovative insurance products have emerged, promising a pay-out based on various reputation related indices. These products are still maturing and are expected to continue evolving in the years to come.



Reputation – difficulty to measure the loss and address the full economic impact

Would you be prepared to protect your organisation if this happened? Do you know what the actual damage would be to your organisation's value?



Pressure on social media



- CEO is caught in the #MeToo scandal with several allegations on social media.
- Some customers start boycotting company's products / services.
- A key shareholder believes these allegations are unfounded and that the CEO is instrumental to the success of the organisation.

Climate change denial



- A document leaks showing that your organisation emits 2x more CO2 than previously reported.
- On the same day, there is a press article quoting your CFO that there is no evidence of climate change.
- A week later, there is a survey showing that school leavers would 'hate' to work in your organisation.

Harmful products



- Turns out that the last batch of products you started selling can harm customers' health.
- You recalled them and launched a revised version that is "perfectly safe". A week later there is news that a customer has become ill.
- Three retail partners (30% of your distribution) announce that they have stopped working with you.

Privacy breach in remote working



- News breaks that you have installed spy software on your employees' laptops, taking a screenshot every 5 minutes to check if they are working properly.
- Staff attrition does not increase as the job market is difficult, but you notice that front line staff client conversations have deteriorated.

Major challenges

When it comes to protecting reputation and brand, organisations often struggle to precisely quantify what their reputation is worth in the first place and by how much its value has declined following an adverse event. Two aspects of protecting reputation are, therefore, particularly challenging:

- **Measuring the loss:** Difficulty around identifying an objective proxy of reputation value to provide precise information about fluctuations in corporate reputation. Even if the fact of an adverse reputational event is established, there is no single obvious way to measure the actual loss. For example, a share price can drop for a few days and then rebound. Customers can express negative sentiment on social media but then be forgiving a week later. Furthermore, reputational events never happen in isolation, and the sentiment of customers and other stakeholders as well as the perception of investors (that will influence the share price) will always be impacted by a range of factors.
- **Addressing the full economic impact of a reputational event:** Reputational loss can be significant and can include the direct lost revenue, litigation expenses, marketing costs to rebuild reputation, and market value loss. It is sometimes noticeable that reputational events have especially significant impact on one stakeholder group (e.g. employees) but not on another (e.g. customers). However, there can be a second level impact later on as frontline staff members start transmitting their sentiment to customers. Such impacts cannot always be captured by immediate reputational harm analysis after an event.

How businesses are managing human capital risk?

Managing human capital depends on **how well you can codify your employees' knowledge and processes and keep your staff healthy.**



Do you follow these fundamentals of human capital management?

Are you on top of codifying the knowledge your staff has?

Example of failure in executing:

When your staff leave the company, they take their knowledge / experience with them. You don't have the practices in place to capture their knowledge into repeatable methodologies / approaches, etc.

YES

NO

Are you doing your best to keep your staff healthy?

Example of failure in executing:

An organisation that does not implement rigorous safeguards and culture that promotes good mental health.

YES

NO

Do you have the right technology and culture to allow flexible working without losing productivity?

Example of failure in executing:

Staff are not provided the right equipment (e.g. headphones) and software (e.g. for secure video calls) to work productively and safely. There is limited trust and staff are under constant pressure of 'proving' that they are actually doing the job.

YES

NO

Typical risk management activities:

Existing human capital protection is typically focused on two protective measures – (1) codification of knowledge / methods / procedures; and (2) improving and sustaining health of the staff to drive higher productivity.

Broader activities (prevention):

The biggest loss of human capital typically occurs when an organisation loses a large number of key employees, without being able to codify as much knowledge as possible – in this scenario all knowledge and experience these employees have would leave the organisation. The most successful organisations are those who are **rigorous in articulating procedures and organise regular knowledge sharing and related data capture.** Furthermore, these organisations often apply advanced HR analytics to proactively manage human capital risks.

Insurance

Some organisations turn to insurance to protect specific aspects of human capital. The insurance market has been successful at protecting organisations against the risk of a key employee leaving (e.g. CEO leaving). Similarly, insurers are providing coverage against key athletes (e.g. football players) getting injured and the related loss due to injuries. Insurance coverage related to a broader employee base, however, has not developed as much, leaving organisations exposed to potential risks of employees leaving or not being able to work. This is a major area that risk owners have to take care of.



Human capital – challenges with the codification of knowledge and reacting to staff attrition

Would you be prepared to protect your organisation if this happened? Do you know what the actual damage would be to your organisation's value?



No information is codified



- A team of employees starts working on a major innovation project aiming to launch a range of new products.
- Two key members of this team leave the business suddenly, leaving no information on how the innovation was generated and limited information on the planned product design.

Insufficient HR analytics



- Your HR analytics fails to notice a sudden spike in absences of people with a specific skill that is not widely available across the organisation.
- Due to the unavailability of this skill, you cannot meet the customer demand and business is interrupted for two weeks.

Challenges in remote working



- Following government advice, all employees have been asked to work remotely from home.
- You notice that the average productivity drops by 30%.
- You see a significant increase in the instances of security breaches.

Sudden spike in 'sick days'



- You find a steady rise in the claimed sick days above the usual seasonal fluctuations. The situation is much better in other companies in your sector.
- Different departments and regions are impacted at a different rate, resulting in capacity shortfalls in specific areas.

Major protection challenges

Human capital is one of the most difficult to quantify types of intangible assets. It is, therefore, no surprise that many organisations tend to undervalue it and struggle to protect it. There is a range a common pitfalls that organisations face:

Codification of knowledge – A large amount of implicit and tacit knowledge is often not codified and is lost when an employee leaves the organisation.

Insufficient HR analytics – Companies rarely have detailed understanding of their workforce; only a few have established HR analytics groups to grasp the behaviour, potential, and risks inherent with their workforce.

Training and education – A key driver of staff satisfaction and continuous improvement is the training and education they receive from the employer. Many organisations have not fully optimised this offering, resulting in higher employee attrition (and the associated loss of human capital).

Non-key employee protection – Key employees (e.g. CEOs or athletes) can sometimes be protected through insurance. Such protections, however, do not extend to the broader employee base even though a loss of these employees can disrupt the business and create additional costs to replace.

Mental health issues – Mental health issues are becoming more common in the workplace, so employers can cover employees to avoid productivity loss and absences.

Remote working – Lack of technology and inadequacies in internal culture to establish effective flexible working.

How businesses are managing intellectual property risk?

Managing intellectual property depends on your ability **to use the publicly available tools to protect your publicised content and be vigilant on securing content that is not publicised.**



Do you follow these fundamentals of intellectual property management?

Are you protecting your publicised content by using the traditional patent, copyright, trademark, industrial design, and geographical indications protection measures?

<input type="checkbox"/>	<input type="checkbox"/>
YES	NO

Example of failure in executing:

An organisation launches a new product that's competitive advantage is its unique design without registering this industrial design for protection.

Is your cyber protection up to date and strong enough to keep your trade secrets secure?

<input type="checkbox"/>	<input type="checkbox"/>
YES	NO

Example of failure in executing:

New soft-drink recipe is held on a laptop that is connected to a public Wi-Fi.

Are your controls strong enough to make sure your IP is not exposed due to actions of your partners?

<input type="checkbox"/>	<input type="checkbox"/>
YES	NO

Example of failure in executing:

A document containing your IP is lost by the third party you are working with.

Typical risk management activities:

Organisations typically rely on the traditional patent, trademark, copyright registration processes and related protective measures. This means that they rely on public institutions to protect their rights to the publicised content.

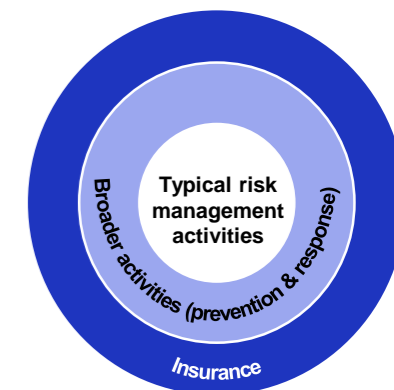
Broader activities (prevention):

The most successful organisations are introducing stricter ways to protect IP that is not published and is secret, particularly due to advancements in cyber attacks and corporate espionage. This includes a range of cyber protection measures as well as stricter employment contracts. Some organisations have developed internal crisis response guidelines and are working with third parties in case of adverse events. Organisations are becoming increasingly familiar with some aspects of IP, including:

- **IP aspects of brand image** (which are not commonly counterfeited) are well-protected by registered trade marks as they provide monopoly rights in perpetuity provided the renewal fees are paid and the trade marks are actively used.
- **Patented inventions** (which are not in a densely patented field of technology) provide monopoly rights for 20 years, provided renewal fees are paid.
- **Trade secrets** are becoming easier to manage with increased focus and successful claims through the introduction of trade secret legislation in Europe and the U.S. with China soon to follow.

Insurance

Insurance products have significantly evolved over the last few years in order to address issues related to IP; for example, cyber insurance and organisations are using these products as a mechanism to transfer some of the risk away from their balance sheets.



Intellectual property protection – several major emerging challenges, driven by the changing tech landscape

Would you be prepared to protect your organisation if this happened? Do you know what the actual damage would be to your organisation's value?



Reengineering of your product



- You find that a product indistinguishable from yours is on sale via online platforms but your organisation has not produced it.
- Its quality is poor and you start seeing an adverse impact on media from people who have bought the product.

Online piracy of your digital product



- You have just had a media session where you talked about the publishing of your content tomorrow and voiced happiness about no leaks this time.
- An hour later you learn that your content is leaked online and has been published on all major torrent websites.

Trouble from patent trolls



- A patent troll company approaches your organisation, claiming that you have breached 10 of its patents related to specific aspects of your product.
- They file a suit against your organisation, requesting compensation of \$500m.

Trouble with the 3rd parties



- A third party you are working with to help produce a new film, informs you that their employee has left a DVD of the film on public transport.
- A week later you are informed that the film has been published online on various illegal streaming websites.

Major protection challenges

Even though intellectual property protection is generally well understood, the changing technology landscape means that there are several emerging risks that can put many organisations under significant pressure. These challenges include:

- **Reverse engineering of trade secrets from 3D printing** – The constantly evolving 3D printing scanners allow ever precise reengineering of products that would normally be protected through trade secrets. The enhanced capability as well as availability of this technology around the globe means that the level of risk is rising. There can be secondary implications of this risk as well, including someone replicating your organisation's product via 3D printing and delivering a copy that looks identical but is of a lower quality. In such circumstances, the organisation can suffer reputational loss and be forced to recall its own products.
- **Patent trolls** – The majority of recent patent litigation cases have been driven by non-practicing entities (NPEs) that do not provide products or services but instead collect patent portfolios for the sake of enforcing IP rights¹.
- **Counterfeiting** – Trade in counterfeit / pirated goods continues to increase and currently exceeds 3% of global trade².
- **Online piracy** – 25% of online consumers consumed at least one item of online content illegally. This figure increases to 31% for 16-24 year olds³.

In the face of these challenges, insurers have started developing products to help organisations mitigate their risks

Once the internal risk management practices are exhausted to safeguard the organisation against risks related to intangible assets, insurance can play a role as a mechanism to transfer some of this risk off the organisation's balance sheet. It can also provide additional support in the form of additional preventative capability and resilience, or in the form of enhanced response capability after a major incident. A range of products already exist that can help organisations manage their risks related to reputation, human capital, and IP, but there are, of course, further challenges that the insurance market will have to solve to continue increasing the relevance of its offering.

Example products

Reputation



- Beazley** – Solution to mitigate potential harm **after a reputational event**.
- Chaucer** – **PR support** as part of a Cyber policy.
- TMK^(a)** – Indemnity for lost profit due to an **adverse media event**.
- Hiscox** – **Social media influencers** cover.

Example challenges that the insurance market will have to address

- **Challenges to establish a link** between the reputational event and financial consequences (e.g. revenue loss).
- Some challenges on **how to treat known historical issues as well as ethical challenges** on what types of reputational events should be insured.
- **Selling reputational products are difficult** due to high pricing.

Human Capital



- Markel** – **Key person leaving** product.
- Hiscox** – **Kidnap & Ransom** product.
- Beazley** – **A&H cover**, including covering **athletes in sports teams**.
- Hiscox** – Displacement coverage (e.g. repatriation).

- Human capital loss often occurs **after political events** (e.g. potential flight of talent or reduced influx of new talent after BREXIT) – this risk is currently not covered.
- There is coverage against the loss related to injuries of key athletes – similar concepts could be applied to other types of employees.

Intellectual property



- Hiscox** – E&O for **post-production houses** that allows responding to data leaks and the related losses.
- TMK** – **IP defence and liability** product.
- **IP pursuit** cover.
- Aon** – **Collateral protection** product.

- **First party consequential loss** (e.g. related to reputation and lost revenue) is typically not covered.
- **Low uptake** historically, although has started to increase with improving cyber awareness.
- **Limited affordability** considering the potential downside risk.
- **Known IP issues** are often excluded although those are exactly the issues clients want to insure.
- **IP products are very relevant for start-ups** but are currently mostly sold to large corporations.

Moving forward

Moving forward – five actions you could take

Organisations will need to find ways to enhance their risk management practices to increase their preparedness for the ever-changing risk landscape. This will require a new way of thinking and acting. There are five actions an organisation can take to increase its preparedness to deal with internal and external risks that could impact its intangible assets and competitive position.

1**Assess the total intangible value of your organisation.**

What is the value of intangible assets on your balance sheet?
Do you have other 'hidden' intangibles like human capital or reputation that are valuable but not visible on your balance sheet?

4**Assess your ability to adequately monitor intangible asset value changes over time and assign each asset a clear risk owner. Consider using corporate partners, such as communications agencies, to further understand risks and value.**

Do not leave risk ownership to the lower level staff – the most successful organisations manage risks at the executive level.

2**Rate the relative value of different types of intangibles in your organisation; determine which are critical to your success.**

Which assets will bring you competitive advantages?
Which assets will help you maximise shareholder value?

5**Determine if there are risks you cannot deal with within the organisation and evaluate what financial solutions may be available.**

Insurers can help you transfer some of the risk off your balance sheet and can help you prevent risks from happening and respond to adverse events.

3**Perform 'war-gaming' exercises and horizon scanning to test your resilience to risks impacting intangible assets; determine your weaknesses and act on them. Try to prevent risks from happening.**

Look at internal and external risks across all intangible categories.
Think about immediate and long term risks and how to prevent them.

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