

## Information as an Asset Today's Board Agenda

"Recognition and protection of information as a strategic asset is fundamental to the success of KPMG's business strategy" – **Anna Purchas, Partner and Head of People, KPMG**

**CILIP/KPMG Position Paper  
February 2019**

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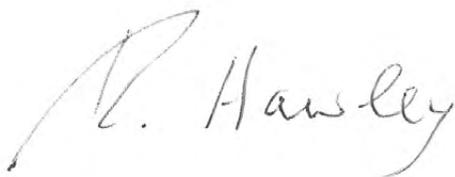
## Foreword

In 1995, as CEO of Nuclear Electric Ltd, through our membership of the IMPACT Programme I was privileged to chair a committee considering the role of information in organisations. Intensive discussion with a range of senior contacts in over 60 organisations confirmed that whilst information was an extremely valuable asset, its management was rarely considered at Board level.

As a consequence, organisations were missing opportunities and risking failures. The Hawley Committee therefore developed a set of guidelines for boards of directors on “Information as an Asset” with the aim of raising the profile and practice of information management to the highest levels.

Whilst our original report was well-received, today’s dynamic and information-centric environment demands even more attention to the business of exploiting and safeguarding information. I am therefore delighted to find that others are now recognising the report’s value and, in their words, ‘rediscovering gold’!

I warmly welcome its republication and updating in this new position paper as well as the work being done to promote its adoption, along with the further work planned to consider knowledge, refine ‘Today’s Board Agenda’ and create measurement tools. I am sure that it will provide the means of encouraging Boards and senior executives to adopt its principles.

A handwritten signature in black ink that reads "R. Hawley". The signature is fluid and cursive, with a large initial 'R'.

**Dr Robert Hawley CBE**  
Former CEO, Nuclear Electric Ltd

## Rediscovering Gold

The original Hawley Report *Information as an Asset* set out to 'stimulate Boards to address their responsibilities in treating information as an asset' of their organisation. This new edition updates the original to demonstrate to Boards in all sectors that in the Fourth Industrial Revolution, information assets and their management represent their most significant opportunity.

In this new report, we set out how the landscape has changed since the original publication in 1995. We have identified three key messages for today's Boards to consider:

1. Information is of critical importance to all businesses today and must be managed at the highest level in the organisation;
2. Well-managed information assets have the potential to deliver value, innovation and opportunity for any organisation;
3. Sound information governance is necessary to minimise financial and bad PR risk to the organisation

In developing this report, we consider the benefits for your organisation of managing and protecting information assets and provide recommendations for what you can do as a Board to secure them. Finally, we provide a checklist and policy framework which you can use to review and encourage best practice in your organisation irrespective of sector.

Recognition and protection of information as a strategic asset is fundamental to the success of any business strategy and we commend this report to you as a useful and valuable guide to today's essential Board agenda.

**Anna Purchas**, Partner,  
Head of People, KPMG LLP

**Nick Poole**,  
Chief Executive, CILIP

## Information at Board Level

Since the publication of the original Hawley Committee report in 1995, organisations in all sectors have experienced a sustained period of transformation powered by new technologies, new skills, new infrastructure and changing customer behaviours.

Today, it would be foolhardy for any organisation to consider the management of information assets as unimportant. Data, knowledge and information are critical assets propelling organisations to increased success, or exposing them to risk. Effective information management and exploitation are critical to competitive advantage.

According to a 2017 Forbes survey, 84% of respondents had seen significant increases in the importance of information-based roles in their company over the previous 5 years. There has been a marked movement of 'information' away from 'IT' and into a broader role as a key aspect of delivering business strategy.

The drive for digital transformation is leading organisations to review the information they need to deliver value, innovation and opportunity for their organisation. Indeed, information-based roles are increasing in their seniority across all types of organisation. As Christy Pettey writes for *Smarter with Gartner*<sup>1</sup>:

*"The emergence of a chief data officer (CDO) in many organizations and across industries indicates a growing recognition of information as a strategic business asset – one distinguished from the technology through which it flows.*

*By 2020, Gartner predicts that 10% of organizations will have a highly profitable business unit specifically for productizing and commercializing their information assets."*

Today's Board agenda reinforces the principle that, to be effective, Information Management leadership and behaviour must come from the top of any organisation.

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<sup>1</sup> Smarter with Gartner *Treating information as an asset* (November 2017)

## Benefits of Good Information Management

### Improved effectiveness and performance (the right information at the right time)

- Better planning
- More informed decision-making
- Increased agility
- Improved results
- More collaboration
- Improved networks
- Better-motivated workforce

### Improved leverage/ROI of the organisation's technology investments

- Reduced costs
- More targeted investment
- Assured long-term access
- Reduced time and effort

### Improved leverage of information assets across the whole organisation

- Faster, more accurate responses
- Enhanced corporate knowledge
- Increased exploitation of assets
- Increased capability
- A solid foundation for collaboration

### Increased efficiency

- Creates competitive advantage
- Stimulates opportunities for growth and diversification
- Better, more efficient services
- Simplified business processes
- Faster decision-making
- Sharing best practice
- Reduced duplication
- Improved return-on-investment

**Enhanced creativity and innovation**

- New insights possible
- Promotes a creative culture
- Innovation flourishes

**Sustained responsiveness and competitiveness**

- Sensitive and responsive to change
- Supports business improvement
- Delivers business intelligence

**Ensured compliance – legal and regulatory**

- Mitigates business risk
- Improved accountability
- Better compliance
- Reduction of risk
- Safeguarding corporate memory
- Promotes openness and transparency

# Maximising Opportunities

The integration of information across organisations offers tremendous opportunities for innovation and improvement.

## **Case Study:**

### **How Information Management came to be a top-table, senior and strategic conversation at KPMG**

KPMG in the UK provides audit, tax and advisory services to a wide variety of public and private sector organisations. Delivering integrated, multi-disciplinary solutions to clients puts the creation and use of information assets at the heart of KPMG's business.

As the market has evolved and digital disruption has put data and technology-enabled services central to the firm's operating model the volume and the complexity of information that KPMG generates, collects, stores and processes has risen at unprecedented levels.

To address this changing landscape and recognising that information is a strategic asset and not simply just an operational, technology, or a risk management matter KPMG has put the management, use and protection of information assets as a topic of conversation at the very highest level in the firm.

To achieve this, the firm's central governance and associated information management frameworks have evolved. An important part of this evolution has been the formation of a dedicated Information Governance Oversight Committee. This group is comprised of members from the firm's Executive Committee, Board, and senior representatives from parts of the business, who sit alongside information technology and other information subject matter experts.

The group meets regularly and discusses all aspects relating to the information lifecycle: from how information is created or collected through to its destruction. Amongst other matters it defines policy on the proper handling of information, it determines how information should be secured, and it discusses how information protection training and awareness should be deployed. Because of the membership that it has, it does all of this in alignment with the business strategy.

Having senior level attention on and understanding of how information is managed and used across the business has delivered a number of benefits. Policies and standards are informed and supported by leadership and so carry a strong mandate beyond just risk management and IT departments. A strong 'tone at the top' provides vital support in the setting and communication of required behaviours and culture. It also provides a formal governance channel to quickly escalate and resolve complex information handling decisions raised by the business. Fundamentally, having such formalised governance and information management on the business agenda at the most senior level enables the firm to perform services that carry complex information handling requirements.

For KPMG this area continues to evolve and so review and continual improvement of information management is built into its programme's activities. Identifying and measuring emerging opportunities and threats, responding to the changing legal and regulatory environment, and seeking new ways to harness the benefits information can offer the firm are all ongoing and active conversations. Recognition and protection of information as a strategic asset is fundamental to success of the firm's business strategy.

# Today's Information-centric Environment

Despite these developments, it remains the case that many organisations are not yet addressing the entirety of information assets and their management at Board-level, let alone the newer related areas of knowledge and data management. The role of the Board in ensuring relevant and far-sighted information strategies and information capabilities is not keeping pace with the potential value of information as an engine for innovation, competitiveness and efficiency.

Today, the Board of Directors and management must consider 5 key factors which are driving change:

## Factor 1: AI, machine learning and automation

The rise of Artificial Intelligence (AI) is transforming the ability of information systems to derive value from information assets. Enabled by machine learning, text and data analytics and robotics, information systems can increasingly learn faster than humans and offer insights and intelligence for the organisation far beyond previous capability.

AI, machine learning and automation are transforming the workforce. The KPMG report *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation* suggests that globally, healthcare and related employment could rise by 80-130m jobs by 2030. Investment in renewable energy, energy efficiency and climate adaptation could create up to 20m jobs as workers adapt to meet the changing needs of industry.

## Factor 2: Growth in volume and scope

The past decade has seen an unprecedented growth in the volume and range of information assets, "big data", derived from the increasing number of connected devices. Organisations are investing in systems that can hold and present datasets, provide accurate metadata and combine in-house data with open datasets from outside the organisation to provide business insight and market intelligence.

Estimates suggest that the volume of information and data worldwide will increase tenfold from 16 zettabytes (trillion gigabytes) in 2016 to 160 zettabytes in 2025. This equates to 1.7 Mb of data being produced per hour per person globally in 2020, powered by the increasing prevalence of the 'Internet of Things' (IoT).

## Factor 3: Interconnection

New approaches to networking information, such as 'automated programme interfaces' (API), mean that organisations are able to discover, share and make use of information resources both within their enterprise and from other sources, leading to richer insights and new opportunities.

According to data provided by CB Insights, 86% of healthcare providers, life sciences companies and healthcare technology vendors are already using Artificial Intelligence and related technologies in some form. By 2020, these organisations are expected to spend an average of \$54m per annum on AI-based projects. These tools are allowing companies to unlock insights and innovations from large datasets in the public domain.

## Factor 4: Protecting information assets in a connected world

In our increasingly connected world, the safety and security of information assets often depends on service providers outside the organisation such as Cloud-based storage and processing providers. This places the protection of information assets outside the immediate control of the Board of Directors. Good information and data governance are key areas of concern.

## Factor 5: Data privacy and regulation

Recent cases such as the high-profile challenges to Facebook over the reuse of personal data highlight an increasing public and political awareness of information risk. While personal data is often given freely but sometimes unknowingly, the corporate management of personal information is attracting criticism and even affecting the bottom-line.

# Minimising Risk

As cybersecurity threats reach an all-time high, investments in data privacy and security are increasing. The new General Data Protection Regulations (now part of Data Protection legislation in the UK) have forced organisations to review and update their processes for guaranteeing data security and privacy.

Recently, information governance and risk *management* have become priority activities, evidenced through the public and media response to high-profile data breaches and enforcement actions in companies like T-Mobile and online aggregator Reddit.

## **Case Study:**

### **Learning the lesson of Cambridge Analytica**

In March 2018, news broke that international data analytics provider Cambridge Analytica was facing accusations that it had illegally harvested over 50m user profiles from Facebook to build a media and communications system capable of influencing the US Presidential Elections and potentially other democratic processes around the world.

Although attention initially focused on Cambridge Analytica, it soon shifted to whether Facebook's data security policies were effectively designed to facilitate the psychological profiling and targeting of its users. A social media campaign quickly sprang up around the hashtag #DeleteFacebook and while the company moved swiftly to manage the fallout, its stock market valuation dipped by billions of dollars.

Eventually in May 2018, although it argued that its actions had been lawful, Cambridge Analytica and its UK affiliated company SCL Elections admitted defeat and filed for insolvency. The incident highlights the networked nature of risk, as companies increasingly depend on a mesh of 3rd party agreements to ensure that their information is being used appropriately.

This incident has continued to cause significant reputational fallout since it was first reported. Facebook's global reputation as well as public trust have been harmed as a result and greater scrutiny has fallen on 3rd party services making use of data shared over social platforms.

# Today's Board Agenda

The Hawley Committee provided a 10-point agenda to ensure that “all significant information in an organisation is identified for consideration as a business asset and that Boards should address their responsibility for information assets in the same way as for other assets”.

We have developed the ‘new Board agenda’ below. This New Board Agenda reinforces the principle that Information Management leadership and behaviour must come from the top of the organisation.

## **The Board should satisfy itself that its own business is conducted so that Directors are:**

1. Certain that the information they use to develop strategy and take decisions is both sufficient and essential for their purpose.
2. Able to access and request all information and evidence needed as a basis for their decisions and to trust that this information is provided objectively.
3. Assured that their own use of information, collectively and individually, complies with applicable laws, regulations and recognised ethical standards (nationally and internationally).
4. Determined to maintain an awareness of new developments in information management, resources and tools. This can be achieved by assigning information management responsibility to a specific director or to a senior manager who reports on information management directly at board level.

## **Boards are accountable for the relevance and currency of their organisations’:**

- Information Strategy: The board should establish and review regularly the organisation’s strategy for information management including action to increase the value to be obtained from its information assets. This strategy should visibly support the organisation’s current and future business strategy. The rapidly developing information environment will also influence the direction of the strategy.
- Information Policy and Operational Framework: Much of the day to day responsibilities for information management action must be delegated throughout the organisation but must be underpinned by a clear framework of responsibilities for actions by leaders, teams and individuals, transparent at all levels, and approved by the board.

The board must satisfy itself that information policy will deliver organisational objectives. This means it must be able to determine how compliance with policy will be measured and reviewed.

A practical policy for information asset management requires the combination of a number of elements: strategy, leadership, policy, governance, culture, behaviours, skills, resources, processes, standards, technology, an information architecture enabling information access, initiatives designed to increase the benefits from information assets and evidence of whether/how these elements are producing a dividend commensurate with investment.

## Information Policy and Operational Framework

These elements provide a baseline from which to assess and re-assess current information management performance. Today's Board agenda reinforces the principle that Information Management leadership and behaviour must come from the top of the organisation.

<b>Identification</b>	<p>The organisation must be able to identify information assets and distinguish between those which are of value and importance and those which are not.</p> <p>Boards should be aware that the asset value of information can change over time as new contexts become known.</p>
<b>Culture</b>	<p>Policies should promote a culture that encourages people to harness information assets and make use of them. This includes recognising new emerging assets, new opportunities from integration of information and the freedom to share ideas.</p>
<b>Value</b>	<p>Policies should encourage the identification of opportunities to be gained by legally protecting, licensing, re-using, combining, re-presenting, publishing and acquiring information assets (such as open data).</p>
<b>Quality and integrity</b>	<p>Policies should identify how the organisation will ensure the quality and quantity of information it needs to accomplish its goals at every level of responsibility. This might include the establishment of enterprise-wide information standards to facilitate the transfer of knowledge and data.</p>

<b>Governance</b>	<p>Information governance policies and procedures should be in place to achieve proper use of information in accordance with applicable legal, regulatory, operational and ethical standards and to protect information from theft, loss, unauthorised access, abuse and misuse, including information which is the property of others.</p>
<b>Best Practice</b>	<p>Policies should ensure good practice in information, records and data management. This includes the identification of roles and responsibilities for the creation, acquisition, organisation, accuracy, storage, availability for use, exploitation and protection.</p> <p>Policies should also ensure sufficient capability, suitability and training to equip people with the skills to safeguard, use and enhance information assets. Every employee is likely to play a part in following best practice.</p>
<b>Strategy</b>	<p>Policies should encourage the establishment of clear strategies for information systems and content which directly support business strategy.</p>

# Maximising Opportunities

## Case Study:

### Syngenta, Open Data and the Good Growth Plan

Syngenta is a leading, global agriculture company with 28,000 people in over 90 countries. Syngenta uses science and innovative crop solutions to transform how crops are grown, enabling millions of farmers to make better use of available resources. At the heart of Syngenta's contribution is The Good Growth Plan, six commitments to address critical challenges the world faces to achieve food security. Syngenta's business – and the world's food security – depends on sustainable natural resources, healthy ecosystems and thriving rural communities. The Good Growth Plan contributes towards delivering the United Nations' Sustainable Development Goals (SDGs) and Syngenta collaborates with industry partners, governments and NGOs to achieve this. Data and information are critical to this work - measuring results and importantly sharing open data to unlock environmental, social and economic value.

Farmers use data to make decisions. Weather forecasts help farmers decide when to make important planting decisions. The Global Positioning System (GPS) help steer their machinery in the most efficient way across their land. Information about the efficacy of inputs can help them decide how to treat pests and diseases. When aggregated on a massive scale, this data can be highly valuable. Since 2014, Syngenta have collected and published a broad range of data on the six commitments of their Good Growth Plan. Syngenta track progress and gather information on agricultural efficiency from over 4,000 farms in 41 countries across the globe. This approach means farmers in their reference farm network can track how much water, land, pesticide, fuel and labour goes into producing their harvest and their greenhouse gas emissions.

Syngenta works with the Open Data Institute (ODI) to apply best practice standards to the data to make it searchable, usable by all and shareable. Everything Syngenta releases as open data has an ODI Open Data Certificate. This is the first time that information at crop level, including resource efficiency, has been made public in this way by a commercial organisation. On a global scale, the analysis of the large volumes of farming data is enabling conclusions that will enable improvement in yields. Data can be used to optimise crop production, food transport and market access. To further these goals Syngenta joined GODAN, the Global Open Data for Agriculture and Nutrition initiative, which now has over 800 partners including governments, NGOs and farm network.

The Good Growth Plan is delivering results: farm-level data is now combined with the open data eco-system, accelerating innovation, and has begun to identify the key drivers for sustainably enhancing productivity. Results are promising: productivity on smallholder reference farms in 2017 increased by 21.6 percent compared to the 2014 baseline. The average reference farm productivity increase was 10.9 percent. This reflects the benefits of optimised products, appropriate training and services – including knowledge-sharing networks – to spread good practice. And while building trust externally by publishing data openly and transparently, Syngenta are building growers' trust by protecting their privacy so that they stay in control of their own data and results.

Sarah Hull, Syngenta – Head of Business Sustainability Seeds and Head of Business Sustainability North America comments: "Openness in agriculture is a new concept, and cultural change is rarely easy. The industry will take time to adapt to this change. But I am certain we can work together on making the connections needed to find the answer to the biggest problem of all – sustainably feeding the planet."

## The Board's Checklist

Are you and your Board confident that your organisation could never:

- Risk massive fines and corporate embarrassment from information misuse
- Frustrate and handicap your employees through a poor information environment – low information reliability and quality; lack of information standards; barriers to information access
- Fail to take opportunities for increasing efficiency through improved management of information
- Fall behind competitors who manage and exploit information more successfully than you
- Miss opportunities, created through information, to develop your business in new directions?

Are you and your Board confident that:

- You are always specifically and adequately advised about the information issues and risks associated with all investment decision and business plans
- Your access to objective, accurate and current information enables effective decisions
- You always seize opportunities for innovation that leverage developments in information matters
- You regularly reap the benefits from exploiting information assets that adds value to customers, markets, collaborators and partners

You know where all your organisation's data and information is held

Are you and your Board entirely satisfied that:

- An information strategy supporting organisational strategy is in place
- The policies, processes and practices to implement that strategy have been established and are followed within the organisation
- The organisation, culture and people processes are matched to the information strategy
- The above elements are audited and reviewed at Board level regularly?

In short is the Board regularly assessing your performance as an information driven organisation and acting on the findings?



# Minimising Risk

## **Case Study: Amazon and data-driven disruption**

Amazon's biggest asset is its unrivalled data bank of online customer purchasing behaviour from its 310 million customer accounts.

At the start of 2018 the mere threat of Amazon getting into the U.S. health business prompted the country's two largest Pharmacy Benefit Managers (PBMs), CVS Health and Express Scripts, to join forces with two of its largest insurers, Aetna and Cigna. The health-insurance arm of Walmart went into talks to buy insurance company Humana, to position themselves as competition for the CVS-Aetna merger.

Amazon announced they were pursuing a non-profit joint venture with Berkshire Hathaway and JP Morgan Chase. The joint venture, still without name, said that it will initially focus on new technology to simplify health care and reduce costs for the three companies' 1 million-plus employees. Analysts have supposed that a quarter of the one million employees of Amazon, Berkshire and JP Morgan are covered by health insurance costing on average USD \$19,000 a year, one third of which is paid by employees. If deployment of Amazon's formidable cost-cutting systems results in a 10% reduction in costs, there's an immediate saving of USD \$300-\$500 million a year for the three partners.

Additionally those one million employees will be the equivalent of the company's Prime customers: users who inadvertently tell Amazon and its algorithms what works and doesn't work, because their annual subscription provides free delivery and therefore makes them more likely to order stuff on spec. So in due course it could be foreseen that the lessons learned from the not-for-profit venture will be incorporated into an offering to Amazon's U.S. customers. In which case Amazon retailer will have become one of the leading providers of health insurance in the U.S.

Certainly to the healthcare market the major threat is that the joint venture, particularly assisted by Amazon's technical and big data mastery, could drive down drug prices by collapsing the complex layers of the pharmaceutical supply chain. The proposed mergers by PBMs and insurers would mean these integrated companies have more information about their customers and more ability and incentive to manage the totality of their health spending. Clearly they see that they can only compete with Amazon if they increase their access to larger and larger sets customer data.

## Conclusions and Next Steps

The Board of Directors has a central role to play in ensuring that information assets deliver value, innovation and opportunity for your organisation.

Good information management supports stronger, more competitive organisations that are better able to adapt to our ever-changing marketplace. Sound information governance will help your organisation navigate the risks of today's inter-connected world.

We hope that having read this report, you will decide to take action to ensure that your organisation understands its information assets and is managing and exploiting them effectively.

Having taken action, we would encourage you to spread the word. Tell your networks and contacts why they should see their information assets as a vital part of their success. Invite them to visit and download the resources available at <http://www.cilip.org.uk/informationasset>

To help and encourage you to take action, we recognise that further work needs to be done. The original Hawley Report was underpinned by wide consultation, and backed up assessment and measurement tools (the Information Health Index); and the issues of knowledge and data have not yet been considered in the context of the Board.

We want to consult and involve YOU

We want to look at extending the thinking to KNOWLEDGE and DATA

We aim to develop simple guidance and MEASUREMENT TOOLS to aid implementation and point to where ACTION is needed.

As noted by Dr Robert Hawley in his foreword, a follow on project to address these issues will be run by IK SpringBoard.

If you/your organisation want to be involved, be consulted and be ahead of the game then contact IK SpringBoard at [info@ikspringboard.com](mailto:info@ikspringboard.com)

## Acknowledgements

We gratefully acknowledge the contribution, ideas and energy of everyone that has been involved in this updating of the original Hawley Committee report *Information as an Asset: The Board Agenda*. Specifically, we would like to thank:

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**Information as an Asset Project Board**  
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# Information as an Asset Today's Board Agenda

## **CILIP/KPMG Position Paper February 2019**

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