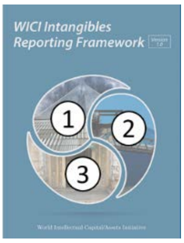
September 2016

WICI Intangibles Reporting Framework

Version 1.0

World Intellectual Capital/Assets Initiative

The cover design of this Framework represents the sense of WICI collaboration as an international initiative, while each picture illustrates some symbolic intangibles drawn from each of the main regions of the WICI



Global Network. In a clockwise order:

① U.S.A: Freedom Tower (Resilience)

② Japan: Ise Shrine (Sustainability), Mt. Fuji (Spiritual Culture),Bullet Train (Technology)

③ Europe: Ferrara Cathedral (Value of the Experience and Knowledge Inheritance)

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About WICI

Vision

WICI (the World Intellectual Capital/Assets Initiative) recognizes the need for corporate reporting that integrates the communication of narrative and quantified information on how organizations create value over the short, medium and long term through the creation, management, combination and utilization of intangibles. WICI was formed in October 2007, and its participants include organizations representing companies, analysts and investors, the accounting profession and academia, who collaborate together to promote better corporate reporting by recognizing the role of intangibles/intellectual capital in the sustainability of an organization's value generation.
(www.wici-global.com)

Network

WICI operates through its national and regional jurisdictions with the aim to promote improved corporate reporting through a focus on intellectual capital/assets in each of the regions and countries represented.

Original WICI promoting parties are:

- USA: Enhanced Business Reporting Consortium
- Europe: European Federation of Financial Analysts Societies (EFFAS), University of Ferrara
- Japan: Japanese Ministry of Economy, Trade and Industry (METI), Waseda University

Activities

- Voluntary Reporting Framework – WICI released a comprehensive information framework and XBRL taxonomy in 2007-2008 to help companies better communicate with their investors and other key audiences about business strategy and current and expected performance. This framework can be viewed at http://www.wici-global.com/framework. Many elements of this framework have been contemplated in the development of the International <IR> Framework.
- Collaboration – WICI supports and collaborates with other initiatives to help further the evolution of corporate reporting. WICI signed a formal agreement with the International Integrated Reporting Council (IIRC) in which both parties have agreed to work together to develop and promote the International Integrated Reporting <IR> Framework and other business reporting frameworks, guidelines and standards that can be aligned to strengthen corporate reporting with a focus on value creation. More specifically, WICI's support to the IIRC is focused on enabling meaningful corporate reporting in relation to Intellectual/Organizational, Relational and Human capitals.
- Industry Specific KPI Studies – WICI facilitates and cooperates on the development of generally recognized and accepted industry Key Performance Indicators (KPIs) as one of the important

elements of the reporting on intangibles and an organization's value creation story. KPIs may be financially derived and/or non-financial (i.e. non-monetarily expressed) in nature, and may include a wide range of market-oriented, industry-specific, and organization-specific indicators. To date, WICI has developed KPIs for the following industries: High Technology, Mining, Automotive, Electronic Devices, Pharmaceuticals, Telecommunications, Fashion and Luxury, Electricity, and Oil & Gas (forthcoming). The WICI-Industry KPIs can be viewed and freely downloaded at http://www.wici-global.com/kpis

Due Process

The "WICI Intangibles Reporting Framework" has been developed and finally approved through the following steps:

Due Process Steps	Date/Period
Decision made on the development of an intangibles reporting Framework by WICI Governance Group	13th May 2015
Formation of a dedicated technical team within WICI	31st May 2015
Public presentation of the Draft Framework at WICI Symposium 2015	4th December 2015
Approval of the Framework Consultation Draft by the WICI Governance Group	11th February 2016
Publication of the "WICI Intangibles Reporting Framework Consultation Draft" including an associated set of consultation questions for stakeholders (www.wici-global.com/wirf/WICI_Intangibles_Reporting_Framework_v1.0.pdf)	15th February 2016
Period of public consultation	From 15th Feb to 16th May 2016
Analysis of the comments and responses received	From 17th May 2016 to 31th May 2016
Revision of the Framework on the basis of the comments and responses received	From 1st June 2016 to 31st August 2016
Final approval by the WICI Governance Group	15th September 2016
Launch of the final version of WIRF	22nd September 2016

Monthly or bi-monthly conference calls by the WICI Governance Group and the technical team have also been held.

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Executive Summary

The Rationale of the Framework

It is globally recognized that intangibles are the key resources for organizations to create value in a sustainable manner over time. Indeed, for many organizations these resources, which are mostly grounded in different forms of knowledge, represent a major portion of an organization's current and future value.

However, information and metrics reported on intangibles are generally scarce, and in most cases insufficient, for both internal management and external investors, creditors and analysts. This is a paradoxical situation in the context of a knowledge-based economy and an ever-increasing role of services and technological and non-technological innovations.

Since 2007 WICI, the World Intellectual Capital/Assets Initiative, has been focusing on and advocating for the idea of a better representation of intangibles in the context of value creation, and has been collaborating to develop a framework to help organizations effectively and efficiently report on intangibles.

Based on a due process and after an international public consultation, the "WICI Intangibles Reporting Framework" (hereinafter called "the Framework") aims to foster and facilitate reporting on how organizations create and/or identify, manage, combine and utilize their unique intangibles in order to generate value and achieve business sustainability.

The WICI Framework is intended to help organizations to make decisions and allocate resources in a more effective and efficient way. Therefore, a report based on the Framework is expected to be beneficial to both the organization itself and its stakeholders.

The Framework does not require organizations to produce a new type of report in addition to existing ones. Information and metrics on intangibles can be reported via various forms of corporate reporting, including Integrated Reports and other business reports for both internal and external use.

Contents of the Framework

The Framework is principles-based. Accordingly, no detailed reporting rules are provided. Furthermore, the Framework addresses essentially non-financial information and indicators (KPIs).

The Framework (in its four Chapters) sets out its purpose and describes the contextual background, provides a definition and a classification of intangibles, offers interpretations of the main principles for intangibles reporting and communication, and outlines the possible structure and contents of reporting on intangibles.

More specifically, Chapter 1 introduces the consideration that the current financial reporting model focuses primarily on historical performance, which in isolation does not facilitate a full understanding of the value creation mechanism of an organization and the associated role of intangibles, especially from a future-oriented perspective. A corporate reporting framework that integrates the communication of narrative and quantified information on intangibles expressed in both financial and, in particular, non-financial (i.e. non-monetary) terms can serve as a catalyst for an organization to evolve towards a positive cycle of value creation and meaningful communication with its markets.

In Chapter 2, intangibles are defined and categorized into organizational capital, human capital and relational capital, which represent the main sources of the organization's value creation currently and in the future, both individually and by virtue of their dynamic interrelations.

Chapter 3 identifies the most important principles for intangibles reporting and communication. They are materiality, connectivity, conciseness, comparability, and future orientation. An interpretation of these five principles in the context of reporting on intangibles is provided to guide organizations to recognize explicitly these resources through reporting of narrative information and indicators.

In Chapter 4, KPIs (Key Performance Indicators), an essential component of the structure of intangibles reporting, are defined. There is a recognition of their crucial role in identifying and quantifying the material element(s) for the organizations' value creation, as well as in increasing the understanding of information users by integrating and supporting narrative explanations.

A sample structure for intangibles reporting is also proposed as follows:

A) Outline of business and management philosophy;
B) Intangibles and Value Creation from Past-to-Present (strategy, business/activity model, intangibles as strategic resource(s), current performance);
C) Intangibles and Value Creation from Present-to-Future (strategy in a changing business environment and intangibles utilized, identification of risks and actions to maintain/improve intangibles, future targets and business sustainability).

Some examples of KPIs are also provided.

Additional information is provided in the Appendices, which is intended to help managers and external stakeholders to gain a deeper understanding of the Framework, and to identify other valuable resources, including guidelines and other examples of KPIs for intangibles reporting.

Chapter 1 – Rationale and Objective of the Framework

1-1 Background

WICI recognizes the need for a corporate reporting framework that integrates the communication of narrative and quantifiable information on how organizations create value over the short, medium and long term through the creation, management, combination and utilization of intangibles. WICI sees the business or an organization as a value creation mechanism which converts financial and non-financial (or "non-monetary") inputs to outputs and outcomes, including financial performance.

Value creation over time is essential to the sustainability of the business or an organization, not only from a socio-environmental point of view, but also from the perspective of the continuity of the business.

The main objective of business reporting[1] is to connect stakeholders and companies by providing information which describes the substance and strategy of the organization. Therefore, WICI believes that business reporting should include an explanation of the value creation mechanism of the organization over time.

In order to provide information that can help stakeholders better understand the future prospects of the organization, each entity needs to clearly articulate 1) the value creation mechanism which is unique to the organization and sustainable in the future, 2) the specific strategic assets, including the intangibles that are the key factors of the value creation mechanism, 3) the organization's own perspective concerning risks and opportunities for the future, and 4) the strategy for the future business, including how it will utilize those strategic assets.

The provision of the above information conveys organizational accountability from the management for the development of intangibles and their contribution to the entity's value creation story.

[1] A form of reporting which focuses on qualitative (narrative), quantitative, financially and non-financially expressed information about the past, present and future value creation process of an organization and the strategy, the resources (especially of intangible nature), the governance and the organizational model which support it.

Within today's corporate reporting environment there is insufficient reporting on intangibles, especially in consideration of the fact that investments in intangible assets has overtaken that of tangible investments for more than two decades, and the value of intangibles now accounts for the majority of the market capitalization of listed companies[2].

Traditional accounting recognizes intangibles only when they are acquired, either as individual assets or within a merger and acquisition transaction. This reporting gap hinders the understanding of an organization's value creation mechanism due to the strategic importance of intangibles.

1-2 Objective of the WICI Intangibles Reporting Framework

The purpose of the "WICI Intangibles Reporting Framework" ("the Framework" throughout this paper) is to provide the definitions, the interpretations of the most relevant principles, and the structure for the reporting of intangible resources that are material for an organization's value creation process and their communication to stakeholders from the perspective of showing business sustainability over time.

Taking into account various legal requirements for reporting, standards, frameworks, and guidelines, and with particular reference to the six capitals model proposed in December 2013 by the International Integrated Reporting Framework [3] of the International Integrated Reporting Council (IIRC), WICI's Framework focuses on Intellectual Capital[4], which encompasses Human capital, Organizational capital and the relational aspects of the Social and Relationship capital (see Figure 1.1 and Appendix 1).

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[2] See Carol A. Corrado and Charles R. Hulten, How Do you Measure a 'Technological Revolution'? *American Economic Review*, 100:5 (May 2010), pp. 99-104; and Ocean Tomo, LLC, Annual Study of Intangible Asset Market Value, 2015.

[3] The International Integrated Reporting Framework can be downloaded at http://integratedreporting.org/resource/international-ir-framework/

[4] The categorization of capitals by WICI is slightly different from that put forward by the IIRC. WICI is adopting the traditional categorization of "Intellectual Capital" which consists jointly of Human capital, Organizational capital and Relational capital, while the notion of "Intellectual capital" as proposed by the IIRC refers only to the Organizational capital (see IIRC Framework, 2013, paras. 2.15 and 2.18). See also Appendix 1.

【Figure 1.1】 WICI's Framework Focus within the corporate reporting landscape

Six capitals as defined by IIRC

The Framework is principles-based. Accordingly, no detailed reporting rules are provided.

The Relationship between WICI's focus and the IIRC's six capitals is further illustrated in Appendix 1 on "Comparison between the classifications of capitals by WICI and IIRC Frameworks".

1-3 The Primary Audience and Information Users of the Framework

The primary target audience of this Framework is all companies and other organizations belonging to the private, public and not-for-profit sectors.

Reporting and communication on intangibles are intended to provide useful information for decision making, and in particular resource allocation decisions, primarily to the organization's management as well as to the providers of financial capital including investors, creditors, and analysts. These are expected to be the primary information users of this Framework.

* Organizational Capital according to WICI Framework

The Framework is also relevant to other stakeholders who are interested in understanding and assessing an organization's intangibles and their role in value creation over time.

The Framework is not meant to require organizations to produce a new type of report in addition to existing reports. Information about intangibles can be reported and employed in various forms of corporate reporting, including integrated reports and business reports for both internal and external use.

The Framework will be helpful in providing a deeper understanding and a better reporting of intangibles and it can be used to create either a stand-alone intangibles report or along with other existing frameworks for producing various forms of reporting.

This Framework addresses, in particular, the reporting of intangibles not covered by current financial accounting standards.

The Framework aims to support reporting of intangibles from the perspective of value creation. It focuses on reporting of non-financial elements and not on the valuation of these resources.

Financial valuation is not always necessary or practical in communicating the value of intangibles (e.g., customer satisfaction or organizational climate do not necessarily have to be expressed in monetary terms to be managed or appreciated). Monetization may not always be the most effective way to understand or manage intangibles from a strategic perspective.

Accordingly, when the term non-financial is utilized in this Framework, it refers to narrative information, or quantified information that is not necessarily expressed in monetary units (e.g., percentage, Likert scale, absolute number, physical measures), but it is still relevant in financial and/or strategic value terms.

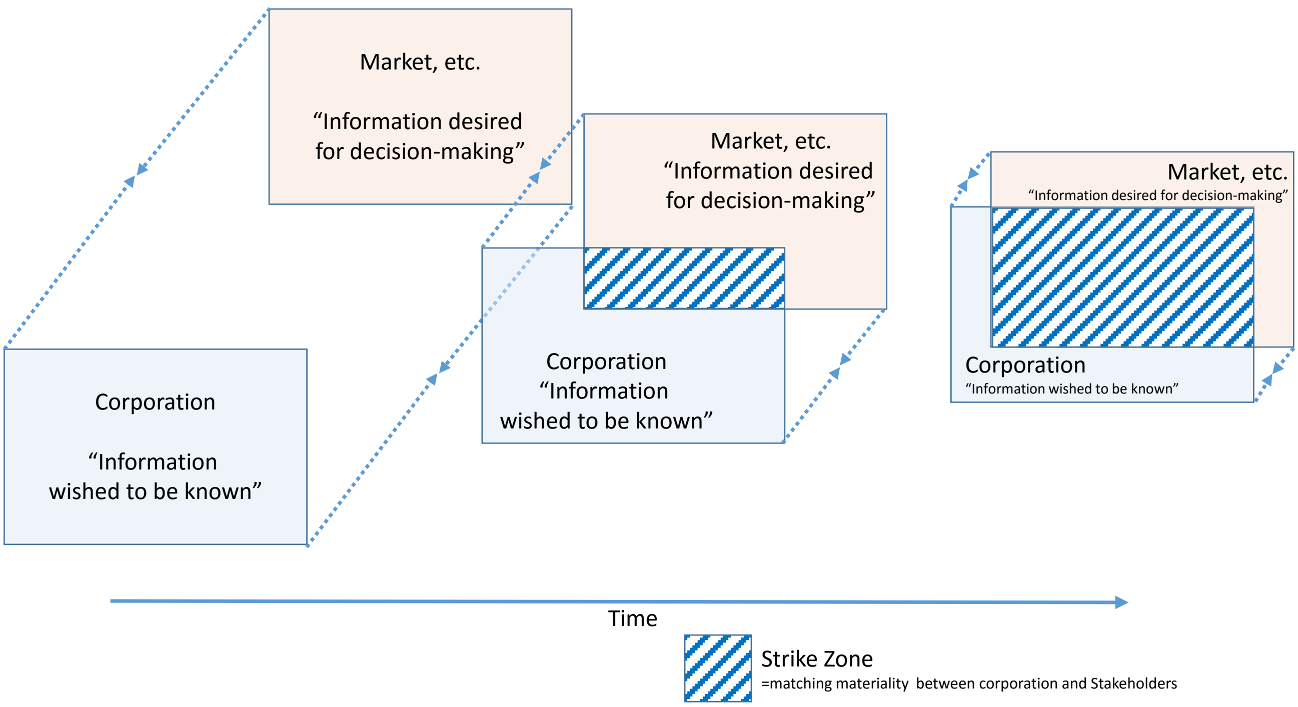
1-4 Intangibles Reporting and Strategic Management

The Framework covers specific ways of reporting on intangibles by focusing on the value and business contribution of the intangibles to the entity's strategic management.

For internal purposes, the most important aspect is not the report itself. Indeed, internally the most relevant benefit for the management of the entity is obtaining a greater understanding of its strengths and its vision for the organization through the process of reporting on intangibles.

The following Figure 1.2 depicts the evolution of reporting towards the establishment of a positive information cycle between an organization and its stakeholders.

【Figure 1.2】Positive information cycle between an organization and its stakeholders



An organization should recognize that there is an information gap between itself and its stakeholders. Accordingly, it is crucial for the organization to consider an appropriate way to deliver information about intangibles to the stakeholders. This may initiate the process of enhanced mutual understanding through a dynamic information exchange.
In this respect, it is envisaged for the stakeholders to communicate with the organization by indicating ambiguous points and any improvements to be made. This would promote

enhanced awareness of stakeholder needs within the organization, which may lead to better management and more relevant reporting. This in turn may enable higher quality analysis by stakeholders.

The reporting of intangibles can be a catalyst for an organization to evolve toward the establishment of a positive cycle of value creation. In other words, consistent communication between internal and external stakeholders of the value creation potential of intangibles can lead to an increase in managerial efficiency, an enhancement of the competitive strength, and a more sustainable growth of the entity.

Chapter 2 – Definition of Intangibles

2-1 The Definition of Intangibles

The Framework sets out the scope for an organization to describe, manage, report and communicate material intangibles which create value.

Intangibles are non-physical resources which, either alone or in conjunction with other tangible or intangibles resources, can generate a positive or a negative effect on the value of the organization in the short, medium and long term.

Intangibles with a positive effect on an organization's value creation may convert themselves into negative resources with an adverse impact on the value of the same organization. Intangibles-related risks are often those linked to the potential transformation of a positive resource into a negative resource vis-à-vis the value creation processes of an entity[5].

Intangibles are therefore positively or negatively[6], directly or indirectly, associated with an organization's capacity to create value. In particular, they may produce two distinct but inter-connected forms of value:

- Strategic value is that related to the enhancement of the competitive, market, product, reputation, and/or risk profile of the organization;
- Financial value is that linked to the generation of net cash flows over time.

Intangibles are resources that are available for use by an organization. Sometimes, they are actively managed in a fully conscious way, but other times they exist or are utilized beyond, or with a limited amount of awareness by, the organization (e.g., reputation).

[5] For a full description of the economic characteristics of intangibles resources, see Appendix 2.

[6] In this respect, an organization may have positive intangible resources (sometimes known also as "intangible assets") which are the drivers of its long-term competitive differentiation and advantage. They derive from a strategic utilization (including the combination) of intangibles that is conducive to an organization's sustainable strategic value and/or sustainable future streams of cash flows. Accordingly, a patent that an organization owns, but that it did not, nor will not, employ effectively in its value creation processes may be outside the scope of this Framework. However, a patent defensively used is a positive intangible resource which falls within the boundaries of this Framework.
An organization may also have negative intangible resources (sometimes known also as "intangible liabilities"), i.e. intangibles that may have substantive negative impact on an organization's strategic and/or financial value (e.g., bad reputation of the organization; poor management quality and leadership). Negative intangible resources are often linked to specific risks of an entity.

Unlike assets as defined in financial accounting (e.g., under the IASB Conceptual Framework for Financial Reporting[7]), it is not necessary that intangibles are owned or controlled by an organization. They simply have to be available and/or utilized by the entity with the aim of generating value.

2-2 Categories of Intangibles

The above definition of intangibles is fundamentally equivalent to the concept of Intellectual Capital.

Intellectual Capital encompasses the internal (competencies, skills, leadership, procedures, know-how, etc.) and external (image, brands, alliances, customer satisfaction, etc.) intangibles which are dynamically inter-related and available to an organization, thereby enabling it to transform a set of tangible, financial and human resources into a system capable of pursuing sustainable value creation[8].

As pointed out earlier (para. 1.2.), Intellectual Capital is typically categorized into three main categories, which are 1) Organizational capital, 2) Human capital, and 3) Relational capital. The boundaries of these categories are flexible and they should not be interpreted/perceived in a static or rigid way.

The following are typical examples of intangibles that may be considered under the categories of Organizational, Human and Relational capital.

[7] See Appendix 3 and also refer to IASB Conceptual Framework for Financial Reporting (Exposure Draft May 2015) http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Documents/May%202015/ED_CF_MAY%202015.pdf

[8] Intellectual capital is explained in the August 2004 document "Intellectual capital statement – Made in Germany" at p. 8 as: "The existing knowledge of an organisation that is critical to success, the so-called intellectual capital – plays a vital role in the creation of innovative products or services in the coming financial years which can be sold at a profit." (http://www.akwissensbilanz.org/Infoservice/Infomaterial/Leitfaden_english.pdf).

Organizational capital	Business processes, data and systems that enable the organization to deliver products and services and create value. (e.g., Organizational culture; Organizational climate; Corporate Governance; Data Quality; Data sets; Processes; Rapidity in the development of products and services).
Human capital	The value that the employees of a business provide through the application of their skills, competencies, knowledge, etc. (e.g., Employee competencies and skills; Leadership; Loyalty to one's organization; Capability of intellectual creation supported by a broad base of engineers and technicians).
Relational capital	The value inherent in an organization's relationships with its customers, vendors, suppliers, business partners and other important constituencies. (e.g., Medium-term business relationships between consumers, business partners and other organizations (High quality network; Speed with which a problem is solved through communication with customers; Image and reputation with customers, institutions and other stakeholders; Level of (e)valuation from financial institutions).

These resources are generally linked to various forms of knowledge[9] in and around the organization and its people.

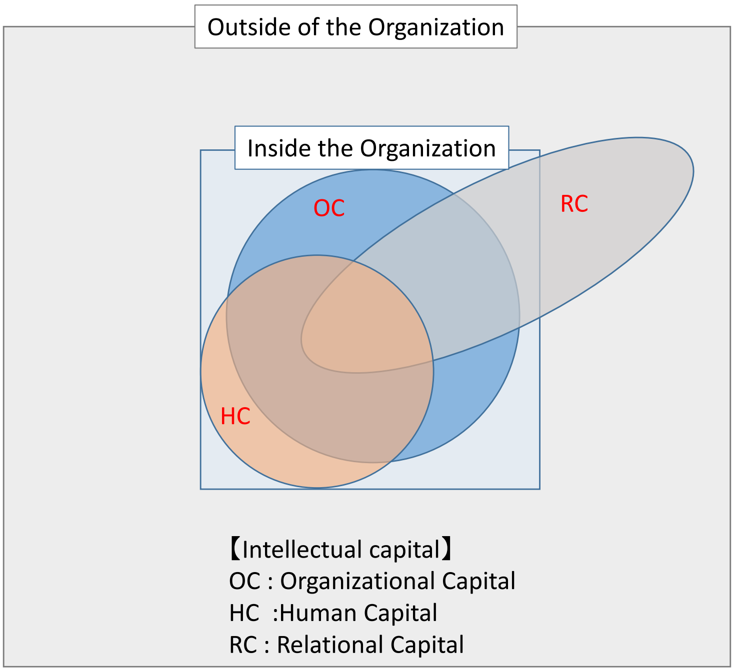
[9] OECD, *New Sources of Growth: Knowledge-based Capital*, October 2013.

2-3 Interrelatedness between Intangibles and Value Creation

An organization is a system which combines various inputs to create value[10]. Value creation by an organization is rarely the outcome of only one individual intangible, rather it is the result of the dynamic interactions of tangibles and intangibles, as well as the relationships and conversion processes between the above-defined three categories of intangibles.

The following illustration provides a depiction of how the three categories of intangibles are interrelated and can be converted from one into another in order to create value over time.

【2.1】 Relationships between intangibles



[10] The "Connectivity background paper for <IR>" issued by IIRC in collaboration with WICI further explains the importance of the interrelatedness of various capitals and the role of the organization as a system.
Connectivity background paper for <IR>:
http://integratedreporting.org/wp-content/uploads/2013/07/IR-Background-Paper-Connectivity.pdf

Illustration of the Dynamics of Intangibles (Figure 2.1)

- The intangibles that most crucially influence an organization's value consist of Organizational, Human and Relational capitals. Figure 2.1 above depicts the overlap between Organizational capital, Human capital, and Relational capital as a result of the dynamic interaction and transformation from one to the other over time (thus, it is not intended to imply that they have something in common as of a point in time).
- Organizational capital, Human capital and Relational capital are interrelated and create synergistic effects. For example, Human capital, such as personal know-how or innovative thinking, allows people in the organization to develop products/services. These products/services will be delivered to the customer (=Relational capital) through the organizational business model (=Organizational capital). After delivery, the organization's ability to meet customers' needs is representative of Organizational and Relational capitals. The organization can collaborate through Relational capital for new innovation (=Organizational capital).

Chapter 3 – Interpretations of Principles for Intangibles Reporting and Communication

Despite the fact that reporting format and content may vary because each organization can choose its own way to inform internal and external stakeholders, the following generally shared reporting and communication principles can be adopted to improve communication of intangibles and their role within the value creation mechanism of the organization.

These principles are interconnected and interdependent. The consistent application of these principles will support a meaningful articulation of the intangibles-based narrative value creation story with KPIs, which is further explained in Chapter 4.

Principles and guidelines from existing corporate reporting frameworks are well established. Rather than presenting new and different intangibles reporting principles, the role of this Framework is to identify the most important principles for intangibles reporting and communication, and to provide an interpretation of each selected principle in the context of reporting on intangibles.

In Appendix 4 on the "Extant principles for reporting and communication of intangibles", a list of the relevant reporting principles drawn from existing frameworks can be found, as well as the web links to the definitions of these principles.

Principles of materiality, connectivity, conciseness, comparability and future orientation are considered most important from an intangibles reporting perspective, and an interpretation of each principle is provided below.

Materiality

An organization should report on what matters most to its ability to create value over time. Intangibles can contribute significantly to this ability. On the other hand, material intangibles and KPIs may be easily overlooked due to their non-physical nature. Therefore, organizations need to carefully select and report on those intangibles which are key factors to generate value.

Connectivity

Intangibles are factors influencing the organization's financial and non-financial performance. Appropriate reporting of information and KPIs should create a link among strategy, business model and financial performance.

Providing a narrative and quantitative description of the dynamic interactions of tangibles and intangibles, as well as of the relationships and conversion processes amongst intangibles is useful information as those are the sources of sustainable value creation for organizations.

Conciseness

Most of the intangibles that contribute to an organizations' value creation are unique. Accordingly, their explanation can lead to lengthy reports, however it is preferable to report the essential points in a simple and understandable way for their reporting and communication.

Comparability

Organizations' reporting of material intangibles (as well as of combinations of intangibles) for their specific value creation may be useful in comparing and contrasting organizational visions. In addition, organizations should continue providing information on material intangibles and their combinations as well as the related KPIs to empower users to compare them over time. Reporting of KPIs related to intangibles can be comparable if other entities also report on the same or similar KPIs.

Future orientation

An organization should articulate how the selected information and indicators on intangibles contribute to its ability to create value in the future. The key elements to be reported are the intangibles-related leading indicators and information, which predictively suggest the organization's capacity of creating value in the future and the associated risks, and are based on past or current facts and events (see Chapter 4 concerning leading indicators).

Chapter 4 – Structure of Intangibles Reporting

This Chapter covers the essential architecture and information content of an organization's reporting of intangibles and its value creation potential.

An important qualifying element of reporting on intangibles and the organization's value creation mechanism is an integration, to the extent possible, between narrative information and quantitatively expressed information represented as Key Performance Indicators (KPIs).

Organizations should present their KPIs together with clear explanations of the way they have measured these indicators.

4-1 Key Performance Indicators (KPIs)

The inclusion of KPIs is expected to raise the reliability and verifiability of the report[11].

Definition of KPIs

KPIs are numerical figures (metrics) related to critical/material factors of value creation and which should provide objective evidence of performance trends by tracking them over time.

KPIs can be categorized as leading or lagging indicators depending on the prevalent time orientation (past, present or future) of their meaning or implication for an organization's performance or activity.

Leading Indicator	Lagging Indicator
An indicator which has a predictive capacity and may refer to the performance to be achieved. It is future-oriented and it is generally based on present events or phenomena.	An indicator which refers to the performance achieved and past events. It is therefore past-oriented in nature.

[11] For more detailed information, refer to the WICI concept paper on KPIs : http://www.wici-global.com/wp-content/uploads/2012/06/Concept-Paper-on-WICI-KPI-in-Business-Reporting-ver.1-.pdf.

Role of KPIs in Reporting

KPIs support the narrative explanation of the organizational strategy, linking it to past, present or future financial and/or strategic performance.

Organizations may not wish to provide information about every material matter due to confidentiality reasons. However, if KPIs related to material matters are provided, especially in the context of strategy, they can help information users to better understand the organizations' ability to create value.

According to their level of relevance, KPIs can be articulated on three levels; General, Industry-specific and Organization-specific.

- **General KPIs** are those that may be relevant for most organizations across industries and sectors.
- **Industry-specific KPIs** are those specific to a certain industry or sector[12].
- **Organization-specific KPIs** are those specific to each organization that should be reported in order to best represent its unique value creation mechanism.

The organization's specific choice of KPIs (or a combination of them), which reflect an entity's value creation mechanism, can help users to compare the company to others. There are typically three categories of comparability for analyzing the presented KPIs:

1) Time-series analysis: compare the change in KPIs over time;

2) Competitive analysis: compare KPIs across companies;

3) Actual and forecast analysis: compare actual and forecasted KPIs.

Organizations are expected to report the KPIs which best represent the uniqueness of their value creation mechanism.

The mere observation of one KPI at a point in time would provide little information (e.g., "customer satisfaction of 5.6 out of 7 in 20XX" is not meaningful per se). Consideration of trends of KPIs over time and of their interrelationship is therefore essential for their

[12] WICI has elaborated Industry-specific KPIs that can be found at http://www.wici-global.com/kpis.WICI Industry-specific KPIs are suggested only to represent a set of industry relevant indicators from which an organization can choose.

interpretation and understanding.

It is expected that an organization reports outcome-based indicators over time, for the minimal number of periods that is needed for users to correctly understand the meaning of those indicators (e.g., the trend of the KPI 'revenue from internal R&D–generated products' in a pharmaceutical company, or the KPI 'flight occupancy rate' for an airline company). Organizations should also report how these indicators have been calculated, and their sources or references.

As explained earlier, it is also important to describe how intangibles-related activities can eventually lead to either revenue growth or profitability improvement. Intangibles-related indicators connected to strategic and/or financial results will help information users understand the story of the organization's value creation, and set the foundation for predicting the organizations' strategic and financial value (see Appendix 5: Examples of Interrelatedness between KPIs).

4-2 Value Creation Story focusing on Intangibles

Intangibles reporting should be articulated under the following three main sections:
A: Outline of activities and value creation model;
B: Intangibles and value creation from past-to-present;
C: Intangibles and value creation from present-to-future.

This Framework is principles-based and does not prescribe the order of the above three main sections. The order of these three main sections can be flexible according to each organization's value creation story.

For the purpose of providing a more concrete illustration of material intangibles closely related to value creation and/or the connectivity between intangibles and financial performance, some typical elements as well as a few KPIs are presented in this section. However, these are simple examples, so it may not be necessary for an organization to report on all elements and KPIs in its intangibles reporting.

A: Outline of Business and Management Philosophy

This section consists of the illustration of the general characteristics of the organization's activities and its resilient management philosophy, with a particular attention devoted to its value creation mechanism.

Management Philosophy

The philosophy of management represents the *raison d'être* of the organization. Accordingly, it includes the vision and the mission of an entity in relation to its value creation mechanism.

Typical elements:

- Management's philosophy and policies that underscore the organization's business management;
- Whether past business developments reflected management philosophy;
- How the management is conveying or intends to convey the company's philosophy to whom, to what extent and by what means.

Examples of related KPIs	Figures	Implication
Degree of internal penetration of management principles	Survey by the organization itself or by external entities	When management philosophy and targets are well understood by employees and shared with stakeholders, such integrity of the organization may contribute to enhancing the organization's strength leading to higher sales, profit and reliability

Outline of the Business

Outline of the business represents the activities of the organization, with particular reference to value proposition, the main products/services offered to the markets and collaboration and/or competition with other entities.

Typical elements:

- Main areas of the business (goods/services) and intended customers;
- Basic sales structure, e.g. Business to Business (BtoB) and Business to Customer (BtoC);
- Market size, major competitors and the company's position in its industry at the national and/or regional level.

Examples of related KPIs	Calculation	Implication
Operating profit margin of major business line(s)	Operating profit of major business line(s) divided by sales of major business line(s)	High profit margin suggests competitive advantage of the organization in the business line(s)
The numbers of competing companies providing the same products or services	The numbers of competing companies in each major product accounting for a significant percentage of total sales of the company	When many organizations in the same industry compete on their main products or services, intense price competition is likely, resulting in a low profit margin

B: Intangibles and Value Creation from Past-to-Present

This section deals with the reporting of information on intangibles, their role in the strategic management of the organization, and their contribution to value creation from the past to the present period. Information can be presented using KPIs.

Strategy

The strategy that the organization intended to implement to create value, as consistent with the Management Philosophy, is described.

Typical Elements:

- Status of selection and concentration of products or services, technology field, customers and market;
- Choice of areas for investment or R&D;
- Specific initiatives to implement the strategy.

Examples of related KPIs	Calculation	Implication
Ratio of specialized sales to total sales	Sales of products or services for specific users or specialized markets divided by total sales	When a company has some portion of specific users or specialized fields for which the company has a unique strength and a small number of competitors, it may contribute to improving the total profit margin
Agility related to withdrawal from unprofitable business	Number of business departments closed or sold off in the past 5 years, with the figure of their sales volume in the previous fiscal year and total profit or loss coming from the withdrawal	When a company decides to give up some business or specific products or services in a timely manner reflecting a related change in business circumstances, such a withdrawal may significantly contribute to improving its profit margin
Degree of R&D concentration	R&D investment in major business area divided by the total R&D investment	Status of concentration of R&D costs for the main business area including related areas with the possibility of future evolution provides insight into the strategic characteristics of R&D in the organization

Business/Activity Model

The way activities are planned and implemented in order to achieve the organization's strategy is identified here, briefly described and quantitatively expressed (if possible).

Typical Elements:

- How a company differentiates its business, product or service from others;
- Line-up of products or services.

Examples of related KPIs	Calculation	Implication
Ratio of R&D expenditure compared with sales[13]	R&D expenditure divided by sales	In the case where a company focuses on technology as an important tool for creating value, enthusiasm for R&D suggests the possibility of differentiation which may lead to greater profitability
Human Resource Development (HRD) expenditure per employee	Total HRD expenditure divided by number of employees	HRD expenditure may lead to enhanced creative activities by employees, possibly resulting in improved competitive advantage for the company.
New product ratio	Sales of products or services within three years from the initial sales divided by total sales	Bringing new products and services to market may contribute to increasing or maintaining unit price as well as attracting new customers

[13] This KPI has both a lagging and a leading indicator nature and significance.

Intangibles as Strategic Resource(s)

An organization's strengths, which include both intangibles and their relationship to tangible and financial assets, are described as the key factor in the company-specific value creation mechanism.

Typical Elements:

- Advantageous negotiating power vis a vis suppliers or customers;
- High quality of main products or services;
- Level of mutual trust with primary stakeholders such as financial institutions and the local community;
- Organizational capability and effectiveness, including human, technological and creative capability.

Examples of related KPIs	Calculation	Implication
Price elasticity of product sales compared to cost of goods purchased	Rate of change in shipment unit price of major products divided by rate of change in the price of raw material	High value, close to or greater than one, of price elasticity might mean that the company has superior negotiating power with customers. Even in the case of increasing costs, such a company may maintain or enhance its profit
Number of recalls	Total number of units which fell into the recall product category during the business year	Low number of recalled product units may translate to high quality of products as well as lower additional cost to deal with recalls. This figure is especially meaningful in the automobile and consumer electronics industries, for example
Changes in customer unit price	Year on year sales value divided by the number of sales	An increase in this figure suggests that the company's attractiveness to existing customers is

		growing or that it has successfully found new customers who place high confidence on it
Level of credit confidence	Average contracted interest rate in loan or straight bond issues minus prime rate	A smaller difference may translate to a stronger level of financial market confidence in the company, resulting in a lower cost of capital
Number of proposed and implemented internal improvement proposals		A larger number of proposals suggests that workers have high motivation to improve the performance of the company. The number of proposals implemented suggests the level of quality of proposals which may enhance corporate performance
Intellectual property owned and its citation		Intellectual Property Rights (IPRs), the results of past intellectual activities, can be indicative of the company's relative competitiveness, as long as they are actually implemented. The quality of IPRs can be evaluated by the number of citations in external documents

Current Performance

Current financial performance, such as an organization's profit or cash flows, as well as intangibles-related performance, such as market share or reputation, generated from the utilization and interaction of strategic intangible and tangible resources, is here quantitatively documented and explained.

Typical Elements:

- Financial results such as sales, costs, profits, cash flows by geography, business segment, etc.;
- How the company is evaluated by important stakeholders.

Examples of related KPIs	Calculation	Implication
Degree of customer satisfaction	Survey by the company itself or external research	A high degree of satisfaction may drive positive changes in sales volume or profit margin
Inclusion in Socially Responsible Index (SRI) funds at the end of year or during the year		Suggests that the company's social performance was positively received and resulted in attracting more investors, which may have lowered the cost of capital available to the company
Corporate image	External survey of ranking by permanent job seekers or as a general perception	Positive image may reduce the cost of recruiting highly talented people as well as that of negotiation with material stakeholders
Credit rating	Current credit rating provided by each credit rating company	A higher credit rating may result in a lower cost of capital and more sustainable relationships with business partners

C: Intangibles and Value Creation from Present-to-Future

This section covers information on intangibles, their role in the strategic management of the organization, and their contribution to value creation from the present to the future period. Information should be presented using KPIs which are related to future performance.

Strategy in a Changing Business Environment and Intangibles Utilized

The strategy for value creation in the future, as well as the business model, activities and key intangibles utilized to pursue the strategy are explained in a systematic manner.

Typical Elements

- Process through which the company recognizes possible changes in the business environment, including opportunities and threats which may have a critical impact on its value creation;
- Strategy the company will adopt in the future in relation to the evolution of the business environment;
- Investment, action plans and key intangibles to implement the strategy;
- Measures for creating or attaining new intangibles to enhance the company's strengths or diminish weaknesses.

Examples of related KPIs	Calculation	Implication
Outsourced R&D cost ratio[14]	Outsourced R&D cost divided by total R&D expenditure	Outsourced R&D may be indicative of flexibility and a positive attitude toward innovation
Average age of employees		If a company intends to focus on a younger target market, a lower average age of employees may indicate a higher likelihood to develop products or services attracting more customers
Degree of employee satisfaction	Survey by the company itself or external research	Employee confidence in the organization may drive a spirit of cohesion, creativity and innovation, resulting in value creation
Number of products in the pipeline covered by	Number of products waiting for	The number of products in the pipeline provides an

[14] Likewise the previous KPI "Ratio of R&D expenditure compared with sales", also this KPI has both a lagging and a leading indicator nature and significance.

patents	commercialization, the main elements of which are protected by patents (especially in the pharmaceutical industry)	indication of future potential revenue streams
Number of patents with economically meaningful remaining terms		These numbers suggests the company's potential to continue profiting in the future from products protected under patents

Identification of Risks and Actions to Maintain and/or Improve Intangibles

Risks, opportunities or uncertainties that may damage or improve strategic resources, including intangibles, are identified. Planned future actions intended to address these elements are also to be presented.

Typical Elements

- Critical risk factors that could threaten the company's strength or future performance;
- Sustaining key intangibles utilized for responding to risks or taking advantage of opportunities, including those related to organizational, human, technological or relational capabilities;
- Risk management process and supporting governance structure.

Examples of related KPIs	Calculation	Implication
Compensation claims in pending lawsuits		This figure reflects the maximum potential amount of future damages in a lawsuit. To make clear the maximum downside risk reduces the uncertainty for the company and provides investors with confidence in investing in the company

Diversification of risks	Number of main factories of suppliers of core products, or Herfindahl-Hirschman Index, which shows the degree of decentralization of the share of major products in relation to total sales	In cases where a company relies upon a small number of factories supplying core products, or upon a small number of products, an incident or change in the market may suddenly deteriorate total production, sales or profit
Risk of being an acquisition target[15]	Present corporate value in stock market minus net cash, divided by book value of net assets	When a share price falls below the perceived potential of the organization, it may become a target for acquisition at a suboptimal or bargain price
Job leaving ratio	Number of employees leaving the company during one year divided by total number of employees at the beginning of the year	For an organization which relies heavily on Organizational capital, a lower emigration ratio may indicate better future profits by maintaining capability as well as minimizing the risk of outflow of knowledge and know-how
Degree of employee satisfaction		A high degree of employee satisfaction suggests that the company may be in a good position to respond successfully to risk

Future Targets and Business Sustainability

Expected future financial targets such as sales, costs, profits and cash flows, as well as intangibles-based targets, such as reputation and customer satisfaction, are portrayed and supported by appropriate KPIs.

[15] From an investor point of view, the risk of being an acquisition target can also be considered as an opportunity/solution.

Typical Elements

- Target figures of financial elements such as revenues, costs, profits, cash flows;
- Target figures of management indicators such as ROE, ROA or total shareholder return (TSR);
- Target customer satisfaction, target cost of capital, target employee satisfaction;
- Prospective coexistence with society.

Examples of related KPIs

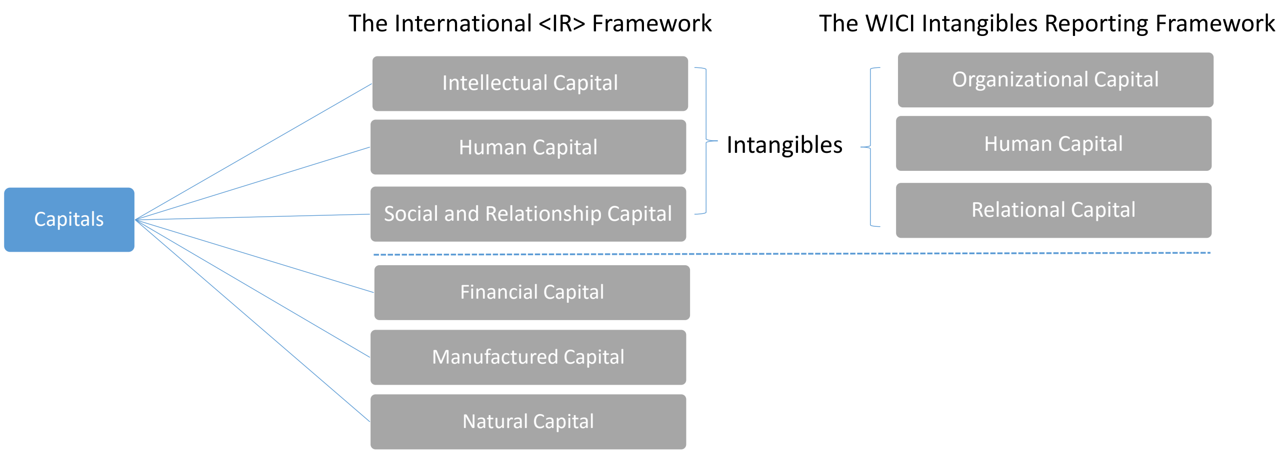
Above-mentioned leading KPIs, including the following, may be indicative of future performance:

- Adoption by SRI funds and more generally signatories to the United Nations Principles for Responsible Investment;
- Credit rating;
- New product ratio and revenues from new products;
- Change in the per-customer earnings.

Appendices

Appendix 1: Comparison between the classifications of capitals by WICI and IIRC Frameworks

The relationship between the three capitals covered by the WICI Intangibles Reporting Framework and the six capitals covered by the International Integrated Reporting Framework.



Appendix 2: Economic Characteristics of Intangibles[16]

In economics and management studies, intangibles are recognized to have certain relevant characteristics which make them distinct and unique within organizations. In addition, these intangible resource are generally linked to various forms of knowledge in and around the organization and its people.

Excludability: partial or full avoidance of access and eventual use by others (e.g., limited and vague property rights, IP spill-over, global antagonism).

Non-rivalry (or non-scarcity): possibility to have simultaneous access and/or use (e.g., software).

Non-tradability: inability of exchange in a market. (e.g., limited exit strategy, sunk costs, limited hedging – no future markets).

Risks: potential loss of value (e.g., inability to cope with change, possibility of disappearance due to bad reputation, high level of uncertainty related to outcomes and to the timing of these outcomes).

Scalability: possibility to increase the quantity and the quality without a correspondent increase in cost(s) (e.g., software reproduction).

Pervasiveness: possibility to be naturally disseminated (e.g., network effects).

[16] These economic characteristics of intangibles are drawn and elaborated from Chapter 2 (pp. 21-49) of the book by Prof. Baruch Lev, *Intangibles. Management, Measurement, and Reporting*, Washington, D.C.: Brookings Institution Press, 2001.

Appendix 3: Differences from Accounting Definition

Under accounting standards, "intangible assets" have a common definition. For example, IAS 38 defines them as follows:

【Definition of intangibles under international accounting standards】

Intangible Asset: an identifiable non-monetary asset without physical substance. An asset is a resource that is controlled by the organization as a result of past events (e.g., purchase or self-creation) and from which future economic benefits (inflows of cash or other assets) are expected. Thus, the three critical attributes of an intangible asset are: • identifiability • control (power to obtain benefits from the asset) • future economic benefits (such as revenues or reduced future costs)"[17]

As previously observed, for the purposes of this Framework it is not necessary that intangible assets are owned or controlled by an organization. They simply have to be available and/or utilized by it to generate value.

In the actual life of an organization, intangibles are interrelated and often converted from one into another (e.g. knowledge to patents). It is sometimes difficult to draw a sharp line between and among intangibles.

This can fail to qualify as "identifiability", one of the critical attributes of an intangible asset as defined in accounting. Nonetheless, the fact that intangibles are difficult to identify is inherent in their nature.

Goodwill is a special intangible in accounting. Goodwill is an intangible asset that arises as a result of the acquisition of one organization by another for a premium value over the fair market value of the acquiree's net assets. Therefore, goodwill incorporates some intangibles that cannot be determined from the amount reported on the face of the balance sheet.

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[17] See IASB: IAS 38, paras. 8 and 11-17; US GAAP: FAS 141(R), FAS 142, ASC 350.

Even though under certain circumstances an internally generated intangible – such as development cost – is allowed to be capitalized according to IFRS, the vast majority of internally generated intangibles cannot be recognized in financial reports under the accounting standards.

Appendix 4: Extant principles for reporting and communication of intangibles

The following are the Frameworks which provide Reporting Principles referenced by the WICI Intangibles Reporting Framework.

Organization	**International Integrated Reporting Initiative（IIRC）**
Framework	International Integrated Reporting Framework（2013）
URL	http://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf
Principles	<u>Guiding Principles</u> A Strategic focus and future orientation B Connectivity of information C Stakeholder relationships D Materiality E Conciseness F Reliability and completeness G Consistency and comparability

Organization	**The European Federation of Financial Analysts Societies - Commission on Intellectual Capital（EFFAS CIC）**
Framework	Principles for Effective Communication of Intellectual Capital
URL	http://effas.net/pdf/setter/EFFAS-CIC.pdf
Principles	<u>Ten principles for the disclosure of intangibles － our perspective</u> 1. Clear link to future value creation 2. Transparency of methodology 3. Standardisation 4. Consistency over time 5. Balanced trade-off between disclosure and privacy 6. Alignment of interests between company and investors 7. Prevention of information overflow 8. Reliability and responsibility 9. Risk assessment 10. Effective disclosure placement and timing

Appendix 5: Examples of Interrelatedness between KPIs

Example 1: Connectivity of KPIs for the Manufacturing industry with a high percentage of R&D investment

"How facility investment, R&D investment and labor cost are visualized by KPIs"

- Creating new products based on the close relationship with manufacturing partners such as factories and wholesale traders (Relational capital) → number of meetings with client → number of prototypes/number of pipeline/number of presented items at exhibition → new products-to-sales ratio/new products-to-net profit ratio.

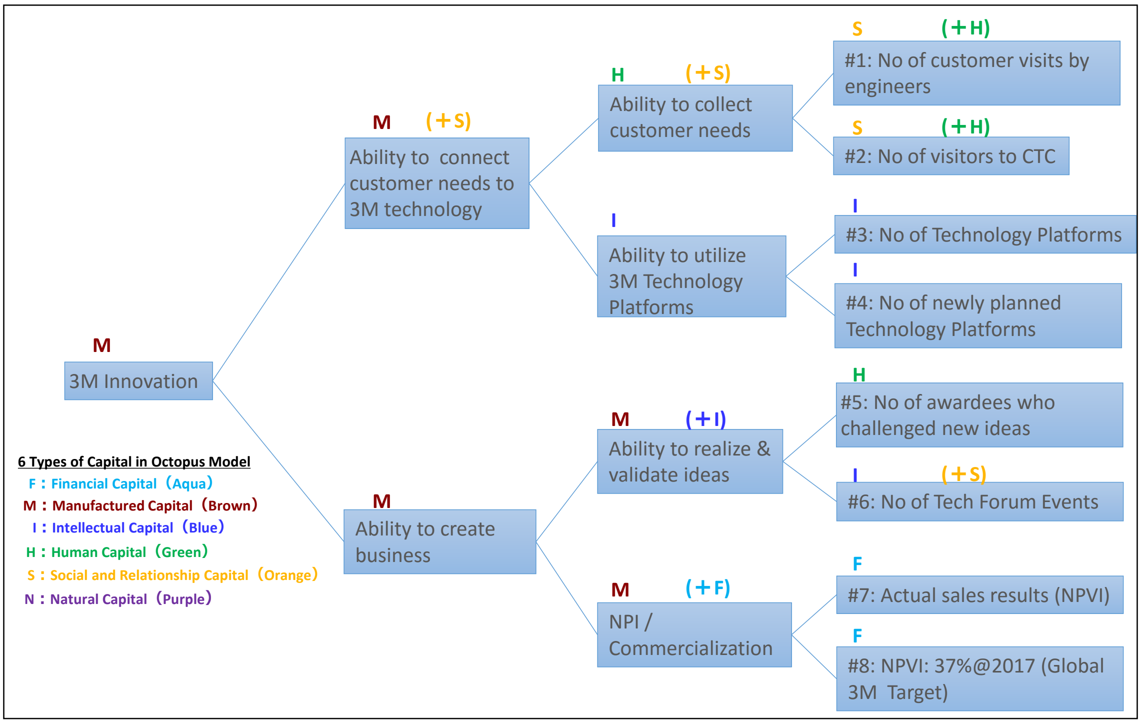
- Developing and improving products based on consumers' demand→feedback system and amount of feedback from call center, SNS (social networking service), sales situation, sales persons/number of good claims→number of new products/number of improved products→new products-to-sales ratio/new products-to-net profit ratio.

- Organization with technology specialized for a specific area, such as a pharmaceutical organization → the growth of the market and technological direction → number of recruits for specific skills → number of products in the pipeline → number of patents/market share → new products-to-sales ratio/new products-to-net profit ratio.

Example 2: Analysis of Value Creation Process at 3M Japan

The following logic tree analysis clarifies the connectivity between the organization's strengths and non-financial KPIs for reporting:

Logic Tree for 3M Innovation



Source: presentation by Mike Masahiko Kon (3M Japan Vice President/WICI Japan Vice Chair) at 12th World Congress of Accounting Educators and Researchers, Florence (Italy), November 14, 2014.

Example 3: Other Examples

The following existing examples of Guidelines can also be helpful in identifying and selecting KPIs from the perspective of each organization's unique value creation story.

- FRENCH GUIDELINES "Thésaurus-Bercy V1" - Référentiel français de mesure de la valeur extra-financière et financière du capital immatériel des entreprises" (2011) http://observatoire-immateriel.com/wp-content/uploads/2015/11/Thesaurus-Volet-1.pdf

- GERMAN GUIDELINES "Intellectual Capital Statement – Made in Germany" (2004) http://www.akwissensbilanz.org/Infoservice/Infomaterial/Leitfaden_english.pdf

- DANISH GUIDELINES “A GUIDELINE for INTELLECTUAL CAPITAL STATEMENTS - A KEY TO KNOWLEDGE MANAGEMENT” (2002) http://ufm.dk/en/publications/2001/files-2001/a-guideline-for-intellectual-capital-statements.pdf

- MERITUM GUIDELINES “Guidelines for Managing and Reporting on Intangibles (Intellectual Capital Report)” (2001) http://www.pnbukh.com/files/pdf_filer/MERITUM_Guidelines.pdf

Glossary

Asset (in accounting according to the IASB)	An asset is a present economic resource controlled by the entity as a result of past events. An economic resource is a right that has the potential to produce economic benefits.
Audience of the Framework	Any type and size of companies and other organizations belonging to the private, public and not-for-profit sectors, which can adopt the Framework.
Business Reporting	A form of reporting which focuses on qualitative (narrative), quantitative, financially and non-financially expressed information about the past, present and future value creation process of an organization and the strategy, the resources (especially of intangible nature), the governance and the organizational model which support it.
Business Sustainability	Capacity of an organization to sustain its value creation process over time.
Financial Value	Value linked to the generation of net cash flows over time.
Intellectual Capital	Intellectual Capital encompasses the internal (competencies, skills, leadership, procedures, know-how, etc.) and external (image, brands, alliances, customer satisfaction, etc.) intangibles which are dynamically inter-related and available to an organization, thereby enabling it to transform a set of tangible, financial and human resources into a system capable of pursuing sustainable value creation

Key Performance Indicator (KPI)	KPIs are numerical figures (metrics) related to critical/material factors of value creation, and which should provide objective evidence of performance trends by tracking them over time.
Lagging Indicator	Indicator which refers to the performance achieved and past events. It is therefore past-oriented in nature.
Leading Indicator	Indicator which has a predictive capacity and may refer to the performance to be achieved. It is future-oriented and it is generally based on present events or phenomena.
Liability (in accounting according to the IASB)	A present obligation of the entity to transfer an economic resource as a result of past events.
Measurement	The determination of size, capacity or quantity associated with an object, an event or one of its characteristics
Negative Intangible Resources (Intangible Liabilities)	Intangibles that may have substantive negative impact on the organizational business and/or financial value (e.g., bad reputation of the organization; poor management quality and leadership). Intangible liabilities are often linked to specific risks of the organization.
Non-Financial (or Non-Monetary)	The term "non-financial" is utilized in this Framework to refer to narrative or quantified information that is not expressed in monetary units (e.g., percentage, Likert scale, absolute number, physical measures). Non-financial' does not mean that a measure or information does not have a financial impact or significance. Sometimes the expressions “non-monetary”, “extra-financial”, “pre-financial” or “not yet financial” are used synonymously with “non-financial”.

Performance	The past, present or the future outcome of the value creation process of an organization.
Positive Intangible Resources (Intangible Assets)	The drivers of sustainable competitive differentiation and advantage. They derive from a strategic utilization (including the combination) of intangibles that are conducive to an organization's sustainable business value and/or sustainable future cash flow stream.
Primary information users of the Framework	The organization's management as well as the providers of financial capital including investors, creditors, and analysts.
Reporting	The process aimed at the measurement and communication of information about organization's activities and outcomes. It can be both internally and externally oriented.
Strategic value	Value related to the enhancement of the competitive, market, product, reputation, and/or risk profile of the organization.
Value creation mechanism	System through which an organization's value is created.
Value creation story	Narrative explanation – often supported by quantitatively expressed information – about the interconnected events which have occurred and generated the organization's value.

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