

Effect of technology on the investment process

IFRS Advisory Council
September 2019

Moderator: Ann Tarca, Board member

The views expressed in this presentation are those of the presenter, not necessarily those of the International Accounting Standards Board (the Board) or IFRS Foundation.

Please read these slides before the meeting

They provide useful background information on this topic

These slides will not be presented
during the meeting itself

Overview of session

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- Technology continues to revolutionise all aspects of our lives.
- Today, we will continue our discussions on the impact of technology on the IFRS Foundation.
- Specifically, we will focus on investors. Investors are the end ‘customer’ of our ‘product’ – the IFRS Standards.
- We will first understand the effect of technology on the investment process.
- We will then discuss what these effects mean for the IFRS Foundation.

Contents

- Effect of technology on the investment process—panel presentation
- Implications for the IFRS Foundation—breakout group discussion
- Appendix A – summary of previous Advisory Council sessions
- Appendix B – refresher on the IFRS Taxonomy

Effect of technology on the investment process— panel presentation

Panellists

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Nathan Cockrell, Lazard

Nathan is a Managing Director and Co-Director of Global Research. He also serves as a Research Analyst primarily covering the global consumer discretionary sectors. Prior to joining Lazard in 2007, Nathan worked for Crédit Suisse, where he was a Director and Research Analyst covering the European retail sector. Earlier he worked as a retail analyst for Morgan Stanley and NatWest Securities in London. Nathan began working in the investment field in 1995.

Geoff Horrell, Refinitiv

Geoff is a Director of Innovation within Refinitiv Labs. Geoff has created and launched numerous content products to help financial professionals go beyond the information contained within financial statements. Geoff is based in London where he manages the multi-disciplinary Lab of research and data scientists and user interface and user experience experts. Geoff has held multiple product and strategy roles at Refinitiv (formerly the Financial & Risk division of Thomson Reuters).

Christine Tan, idaciti

Christine is the Co-founder and Chief Research Officer of idaciti. She is also a professor in accounting at Hunter College, City University of New York. At idaciti, Christine oversees all research functions related to financial data analyses, data quality assurance and the application of machine learning to financial and non-financial datasets. Prior to that she was the XBRL project manager at the FASB for two years from 2010. She is a member of both the FASB's Taxonomy Advisory Group and the IFRS Taxonomy Consultative Group. Christine has consulted with a number of Fortune 500 companies, government agencies, investment banks and private equity firms.

David Wright, BlackRock

David is a Director and the EMEA head of Project Strategy for the Systematic Active Equity (SAE) business within BlackRock's Active Equity Group. Prior to moving to his current position in 2016, he was a senior strategist within SAE for 10 years in London and the US, responsible for communication of the team's various investment strategies with both institutional and retail clients and consultants. Previously he was a member of the performance measurement team and the Business Development Resource Group. His service with the firm dates back to 2001, including his years with Barclays Global Investors which merged with BlackRock in 2009.

Panellists will share their views on the effect of technology on the investment process

How has technology changed the investment process over the years, considering the sources, delivery and analysis of information? What was done in the past compared to today? How do you expect technology to impact the investment process in the future?

What implications do the changes noted in the above question have for financial statements and structured data? Will financial statements and structured data lose relevance?

What are the top three things that need to happen to support investors in making decisions in a more technology-driven world? Support can be from regulators, auditors, private sector, software developers—as well as standard-setters.

- Technology provides a wider range of data sources for investors
 - traditional information: company filings, company events, industry statistics, regulatory reports, broker research
 - newer sources of information: satellite imagery, social-media or web-based data
- Big Data refers to **large** volumes of data, both structured and unstructured
 - **structured** – data that is machine readable. Data that is organised, formatted, searchable e.g. websites, financial information filed using IFRS Taxonomy
 - **unstructured** – not easily analysed e.g. text, video, audio, social media

- Technological innovations (eg, artificial intelligence (AI) and automation) have changed how investors can analyse information from financial statements and other sources, including:
 - improving efficiency in areas of investment research that were traditionally more labour intensive, such as extracting data online from PDFs and HTML files
 - obtaining more granular and more timely information
 - helping investors discover relationships/connections between different data inputs
 - Investors can use data from a range of sources to improve forecasting of financial statement data (eg earnings, cash flow forecasts).
 - Technological advancements have allowed investors to more easily integrate analysis of unstructured data with structured data

- Investors may use data compiled by data aggregators or proprietary technologies to obtain
 - additional related details on reported data
 - standardised data using industry and market practices
 - adjustments for abnormal or non-recurring items in financial statements
- Advancements in technology are driving changes to the data aggregators' product and service offering to the investment management industry:
 - Increasing number of data sets investors can access such as alternative data sets (web scraping, GPS devices), or data about private companies
 - Transforming unstructured text (earnings call transcripts) into structured data
 - User friendly analytics capabilities allowing traditional active managers to use quantitative analysis tools

Implications for the IFRS Foundation— breakout group discussion

Question 1– what impact will technology have on the need for IFRS Standards in the future?

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Advisory Council feedback (October 2017)

Clear, future role exists for some form of financial reporting and for some form of principles-based accounting standards and, therefore, the IFRS Foundation

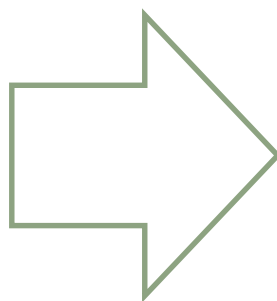
Reconsider your advice from October 2017. Have your views changed?

In this regard, consider the role of IFRS Standards today in providing investors with:

Transparency

Accountability

Efficiency



Financial information

Predictive and confirmatory

Comparability (both in how (a) recognised and measured and (b) presented and disclosed)

1A. To what extent will technology eliminate investor needs for the above benefits of IFRS Standards?

1B. To what extent will technology provide an alternative means of obtaining the above benefits?

Question 2 – what impact will technology have on the need for the IFRS Taxonomy in the future?

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Advisory Council feedback (September 2018)

The IFRS Foundation should continue with existing activities as the taxonomy is an integral part of the financial reporting standards

- The IFRS Taxonomy provides the labels to tag financial reports prepared in accordance with IFRS Standards to facilitate electronic delivery and analysis. Refer to Appendix B for further information.
- Reconsider your advice from September 2018. Do you continue to believe there is a role for a structuring mechanism – that is, a taxonomy?
- If not, how do you foresee technology making taxonomies obsolete?

Question 3 – are market forces supplanting benefits of an IFRS Taxonomy?

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Advisory Council feedback (September 2018)

The IFRS Foundation should continue with existing activities as the taxonomy is an integral part of the financial reporting standards

IFRS Taxonomy

- Potential to be a single, global taxonomy for IFRS reporters
- Created by experts in IFRS Standards
- Developed concurrently with IFRS Standards
- Developed by trusted organisation with due process
- Developed with public interest focus to support democratisation of financial information without profit motive
- Fulfils commitment to regulators already requiring/permitting use of the IFRS Taxonomy (see slide 32)

Market forces (see slide 29-30)

- Individual firms create proprietary taxonomies for internal purposes or to sell as part of data analysis software to investors
- Tailored for sophisticated analysis
- Compensates for issues such as different GAAPs, providing coverage of more companies
- Firms, rather than preparers, tag the financial statements

Question 4 – what other take-aways do you have from today's panel?

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Appendix A – summary of previous Advisory Council sessions

Effect of technology – October 2017

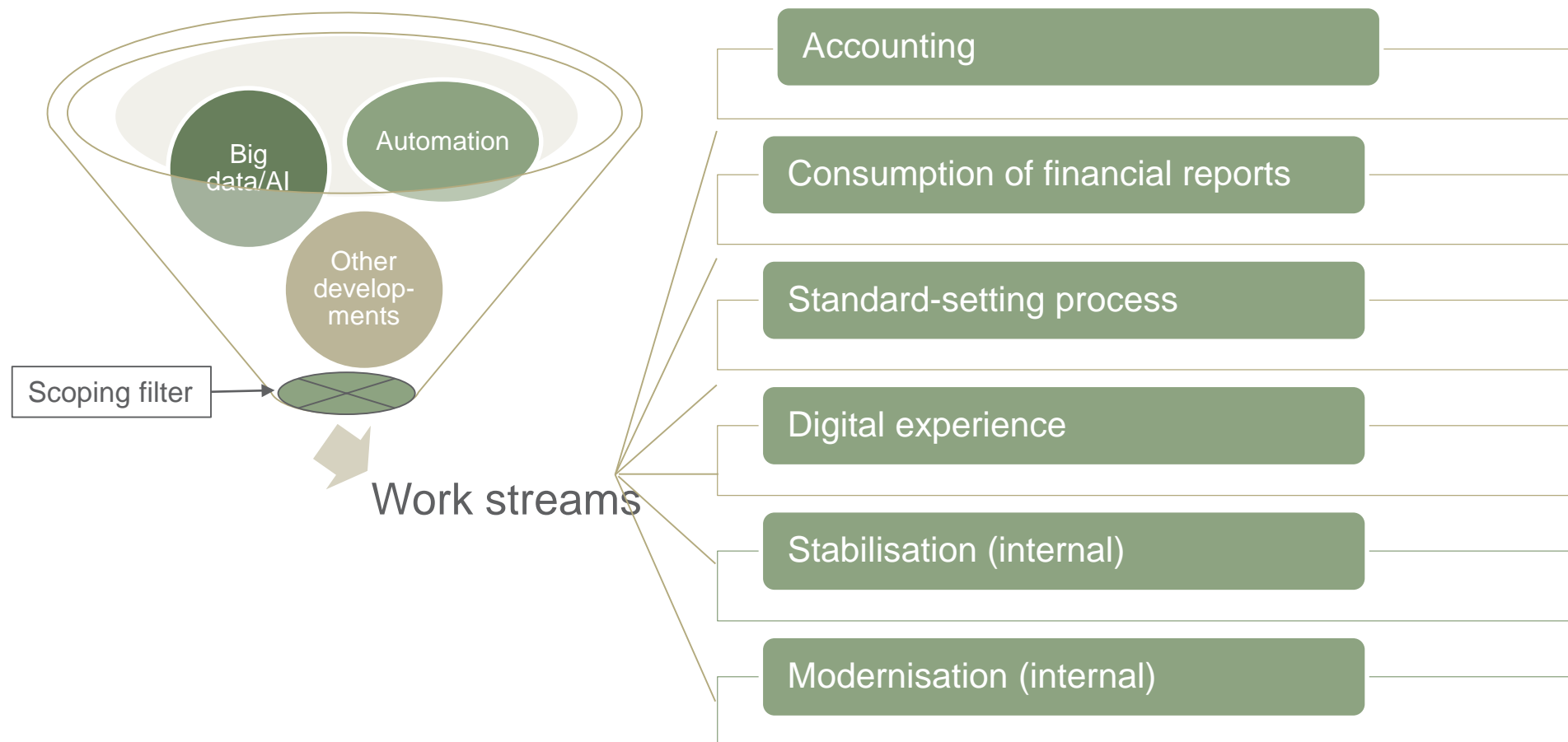
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Advisory Council Advice Excerpts from Minutes	IFRS Foundation Activities
Tsunami of technological changes will impact accounting, corporate reporting and the IFRS Foundation	<ul style="list-style-type: none">• Executive Director and Executive Technical Director are champions• Workstreams identified; next steps being defined• IFRS Taxonomy strategy discussed in September 2018
Clear, future role exists for some form of financial reporting and for some form of principles-based accounting standards and, therefore, the IFRS Foundation	
Stakeholders will need to deal with unstructured data and with judgments being made in a real-time environment	
Identify a champion in a leadership position	
Consider technology throughout the organisation, including internal processes and external communications	
Include on future Advisory Council agendas	

Technology landscape

Implications for the IFRS Foundation

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Advisory Council Advice – Excerpts from Minutes

The IFRS Foundation should fully own what it can control: the IFRS Taxonomy content

- continue with existing activities as the taxonomy is an integral part of the financial reporting standards
- engage traditional stakeholders (investors, regulators, preparers) and non-traditional stakeholders (data aggregators) to ensure IFRS Taxonomy is fit for purpose
- be technology agnostic in taxonomy content design

Multiple stakeholder have a role to play in making structured electronic reporting a success for investors – the IFRS Foundation does not have sole responsibility

IFRS Foundation is an enabler and influencer and therefore can steer electronic reporting in the right direction

- consider creative means of influencing, collaborating and/or partnering with multiple stakeholders
- do not be too apprehensive about concerns over reputational risk

IFRS Taxonomy strategic questions – September 2018

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IFRS Foundation Activities

- Discussed with Trustees in January 2019
 - Generally agreed with Advisory Council recommendations
 - Placed greater emphasis on being an influencer and our lobbying role, given that we are in the early days of IFRS taxonomy adoption
 - Monitor for disruptions (eg, AI, XBRL technology)
 - Be agnostic to underlying technology
- Staff to begin updating IFRS Taxonomy strategy and developing work plan in coming months.

Appendix B – refresher on the IFRS Taxonomy

What is the IFRS Taxonomy?

What is a taxonomy? ① Classification

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- A system for classifying something—allowing information to be structured so it is easy to browse and find
- Here's an familiar example of a taxonomy, from an online retailer:

Shop by...			
Gender: male			
	Item: tops		
		Size: medium	
			Colour: green

- The **IFRS Taxonomy** classifies the presentation and disclosure requirements of the IFRS Standards.

What is a taxonomy? ② Identification

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- A system for identifying something—allowing the information to be accessed, processed and analysed more efficiently
- For example, an online retailer:



= identifier for a green male top—helping a retailer to efficiently manage inventory and supply

- What are the stock levels of green male tops?
- Book new stock and instantly update availability of green male tops to all selling channels

- The **IFRS Taxonomy** is a system for identifying disclosures required by IFRS Standards.

What does the IFRS Taxonomy do?

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- Reflects the presentation and disclosure requirements in IFRS Standards (including in the *IFRS for SMEs* Standard) in a structure
- Consists of **elements** used to identify ('tag') information in financial statements prepared using IFRS Standards
- Makes the tagged information **readable for computers**

A single global standard for tagging disclosures prepared using IFRS Standards, facilitating electronic communication

IFRS Taxonomy elements—example

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IAS1 *Presentation of Financial Statements*

IFRS
Standards

81B An entity shall present the following items, in addition to the profit or loss and other comprehensive income sections, as allocation of profit or loss and other comprehensive income for the period:

- (a) profit or loss for the period attributable to:
 - (i) non-controlling interests, and
 - (ii) owners of the parent.



IFRS
Taxonomy

Computer tag	ifrs-full:ProfitLossAttributableToOwnersOfParent
Label	Profit (loss), attributable to owners of parent
Reference	IAS1 81B (a) (ii)
Documentation	The profit (loss) from continuing and discontinued operations attributable to owners of the parent. [Refer: Profit (loss)]

Tagging using the IFRS Taxonomy—example

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General and administrative expenses	(1,003)
Research and development expenses	(1,562)
Other business	89
Other business	(30)
Income from o	658
Financial income	94
Financial expense	(453)
Investments in a	30
Income before	329
Income tax expense	(169)
Income from c	160
Discontinued op	479
Net income	638
Attribution of net income	
Net income attributable to Koninklijke Philips N.V. shareholders	624
Net income attributable to non-controlling interests	14

Attributes

Profit (loss), attributable to owners of parent

Tag	ifrs-full:ProfitLossAttributableToOwnersOfParent
Fact	624,000,000
Period	12 months ending 12/31/2015
Measure	EUR
Scale	Millions
Decimals	Millions
Balance	Credit
Sign	Positive

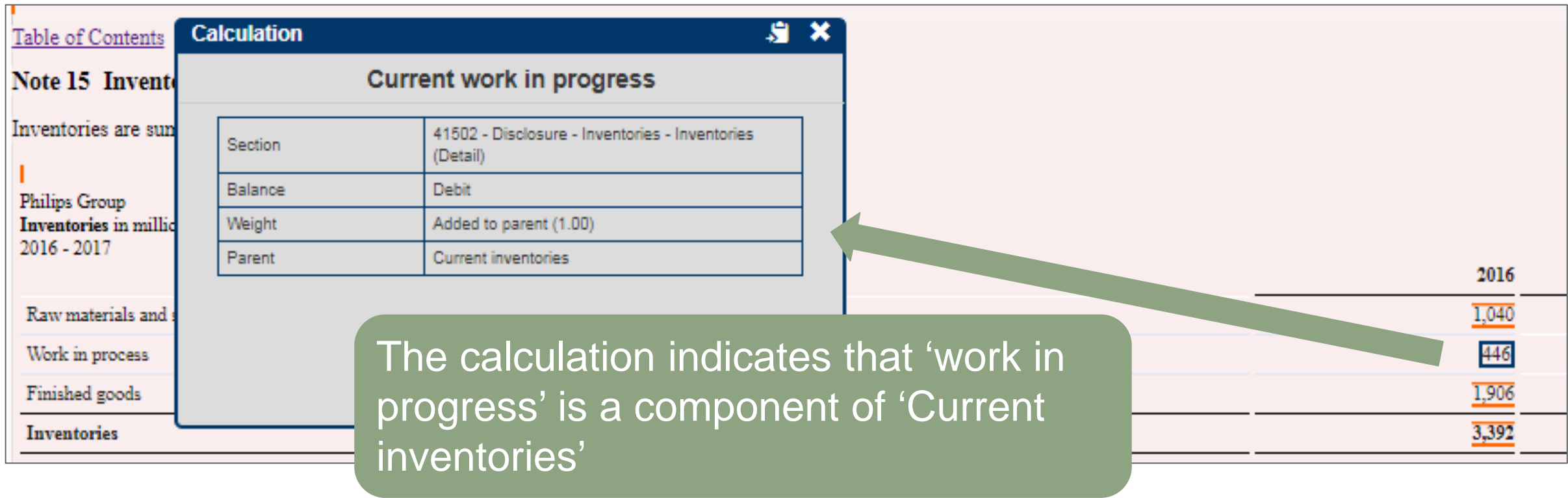
IFRS
Taxonomy
element

IFRS disclosure



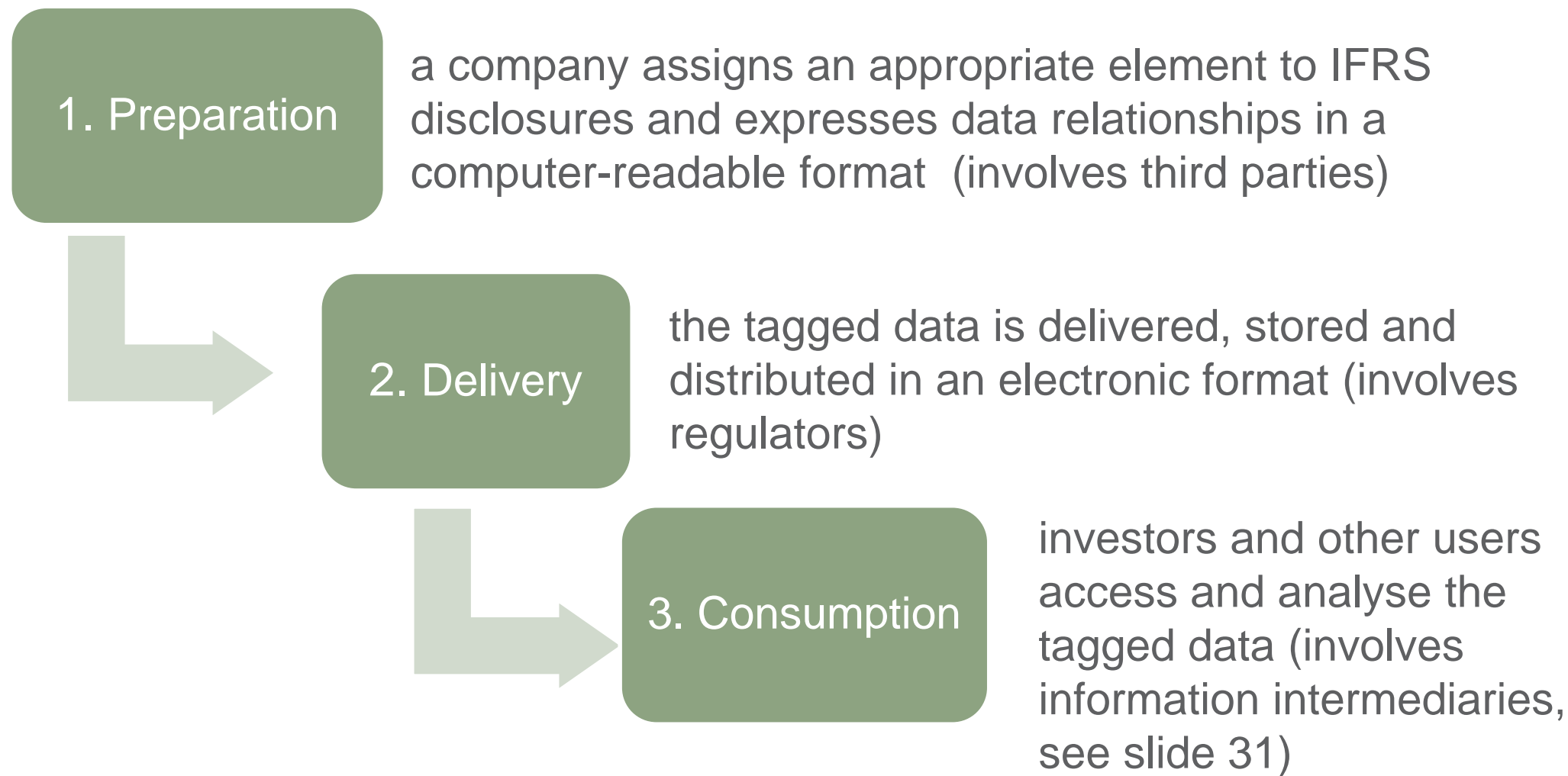
Source: SEC Inline XBRL viewer

Data relationships can also be expressed in a computer-readable format



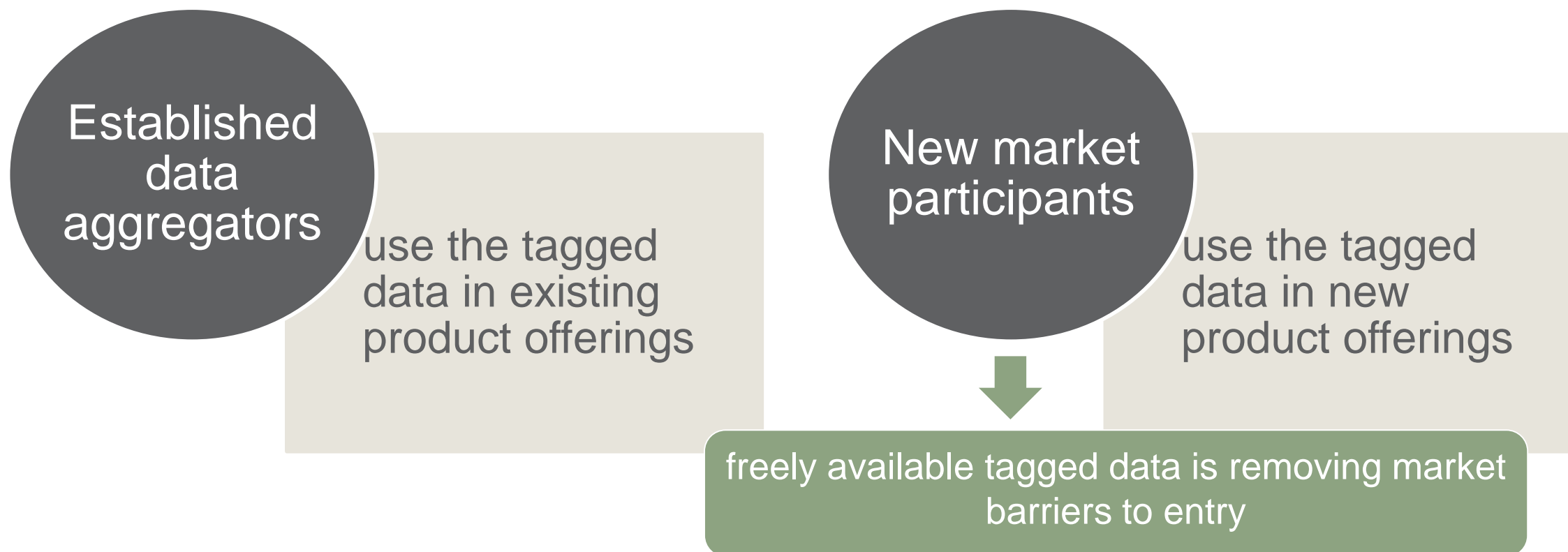
Source: SEC Inline XBRL viewer

Who are the players in electronic reporting?



Many parties have a role to play for electronic reporting to work well!

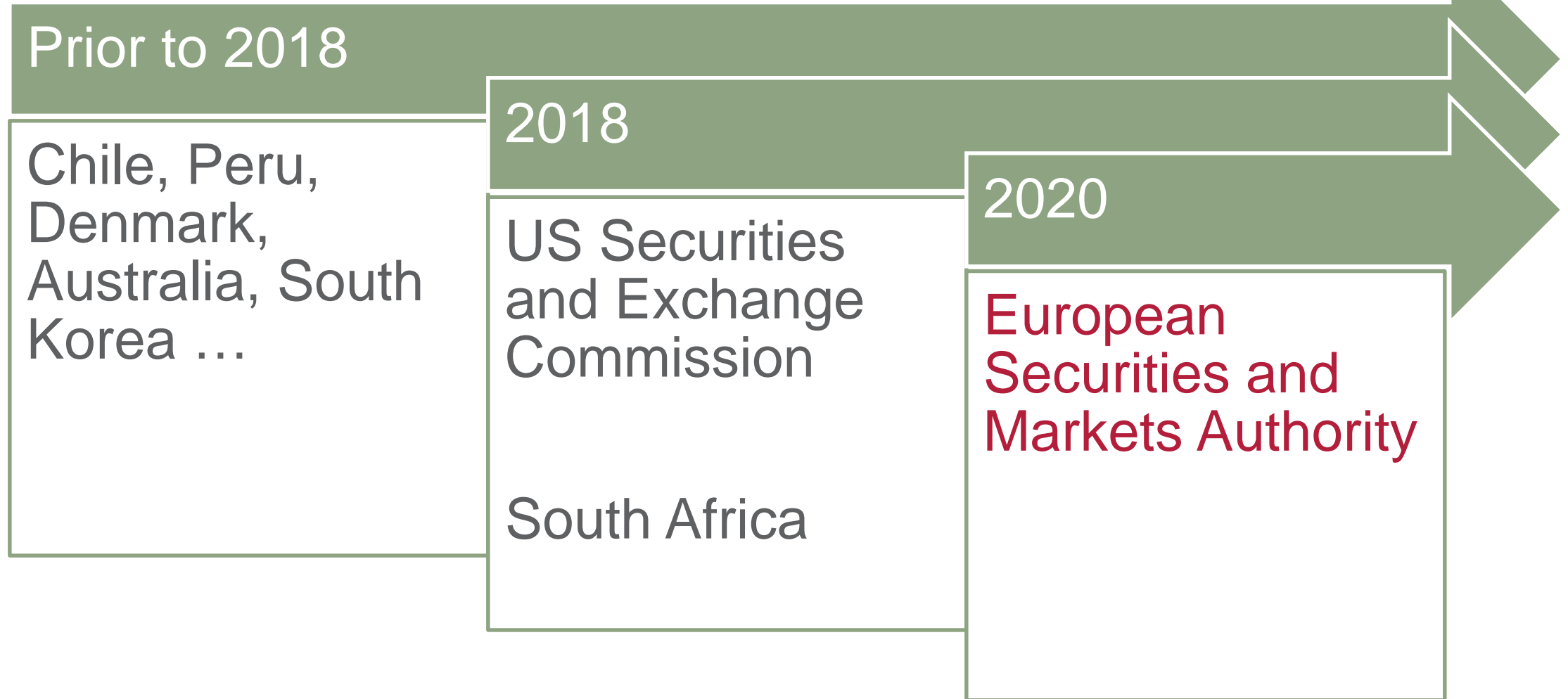
- We have heard that **investors are currently consuming the data** mainly **indirectly** through information intermediaries:



**Who requires / permits use of the
IFRS Taxonomy?**

More regulators requiring / permitting use of IFRS Taxonomy

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