



the new strategic value creation

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**Safe and Ethical Cyberspace, digital assets and risks:
*How to assess the intangible impacts of a growing phenomenon?***

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Historical Evolution from Tangible to Intangible Assets

Tangible Assets vs. Intangible Assets for S&P 500 Companies, 1975 – 2018

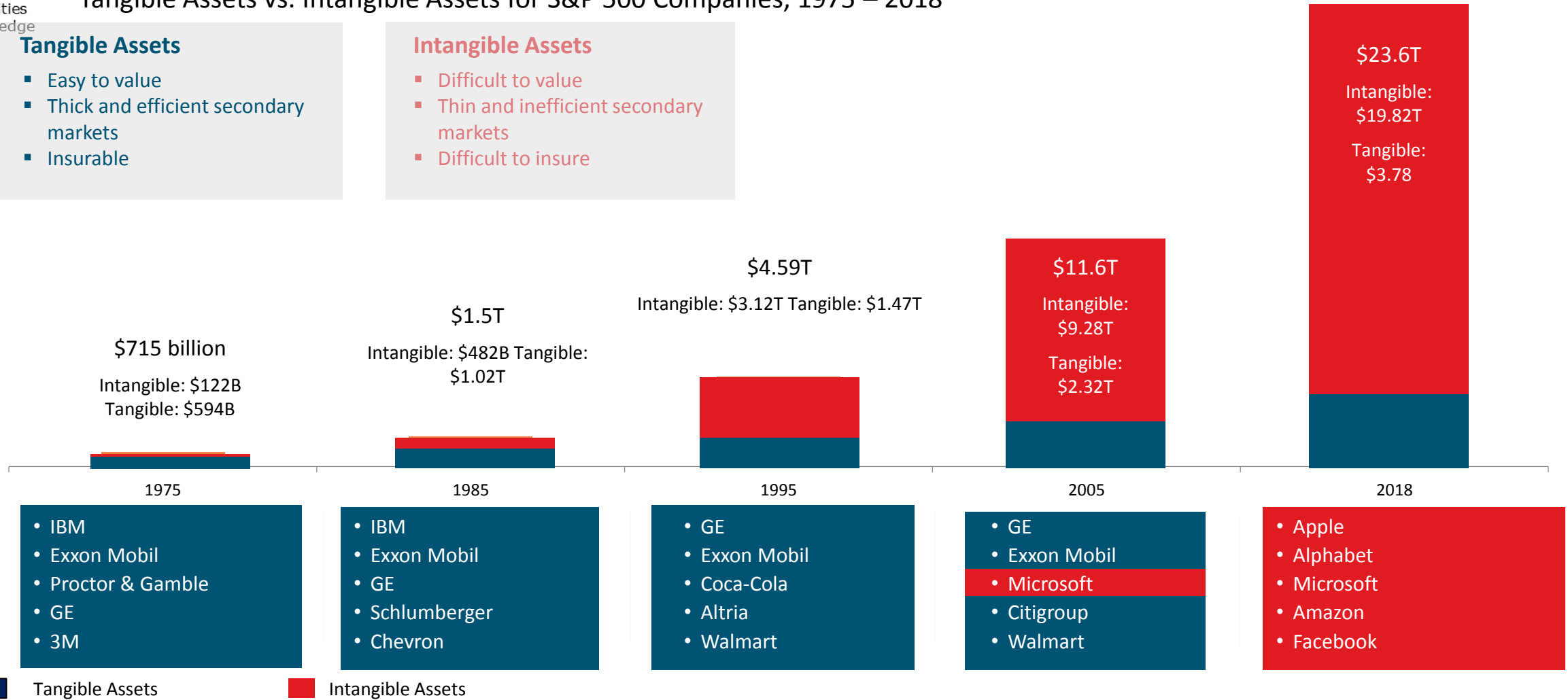
Tangible Assets

- Easy to value
- Thick and efficient secondary markets
- Insurable

Intangible Assets

- Difficult to value
- Thin and inefficient secondary markets
- Difficult to insure

5 Largest Global
Companies by Market
Cap



- IBM
- Exxon Mobil
- Proctor & Gamble
- GE
- 3M

- IBM
- Exxon Mobil
- GE
- Schlumberger
- Chevron

- GE
- Exxon Mobil
- Coca-Cola
- Altria
- Walmart

- GE
- Exxon Mobil
- Microsoft
- Citigroup
- Walmart

- Apple
- Alphabet
- Microsoft
- Amazon
- Facebook

ic



Intellectual Capital
for Communities
In the Knowledge
Economy

Programme de Recherche IRT-SystemX



CONSEIL GÉNÉRAL DE L'ÉCONOMIE
DE L'INDUSTRIE, DE L'ÉNERGIE ET DES TECHNOLOGIES



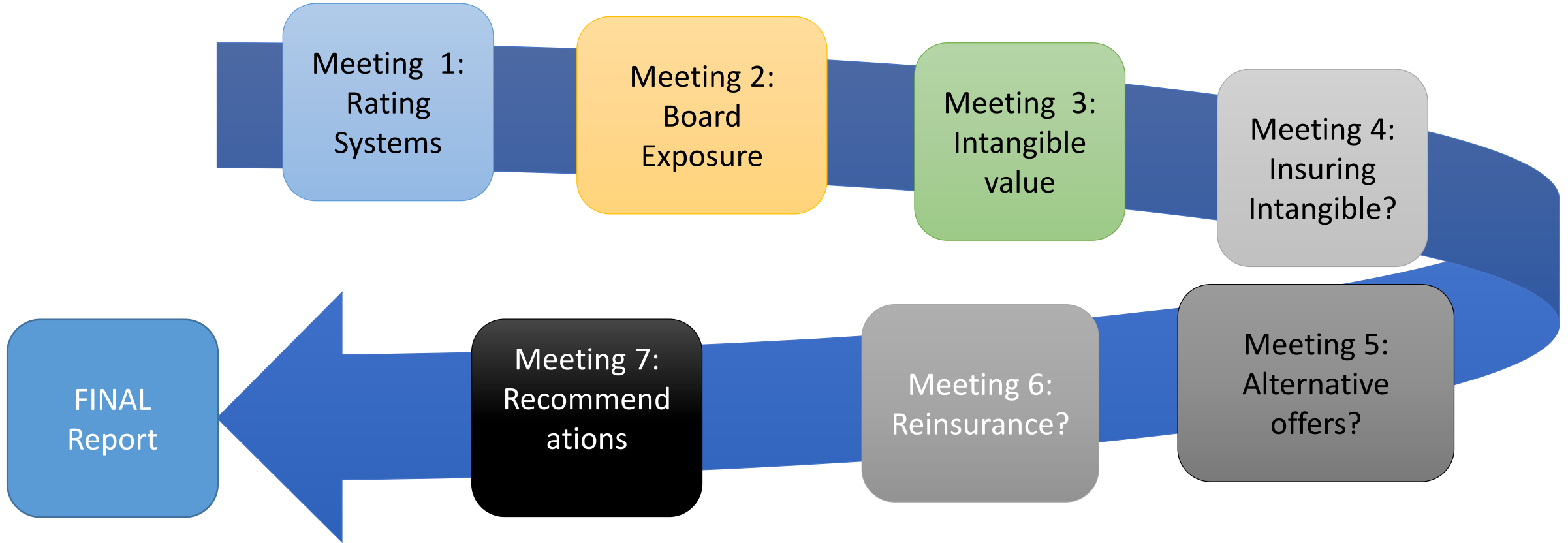
June 2018



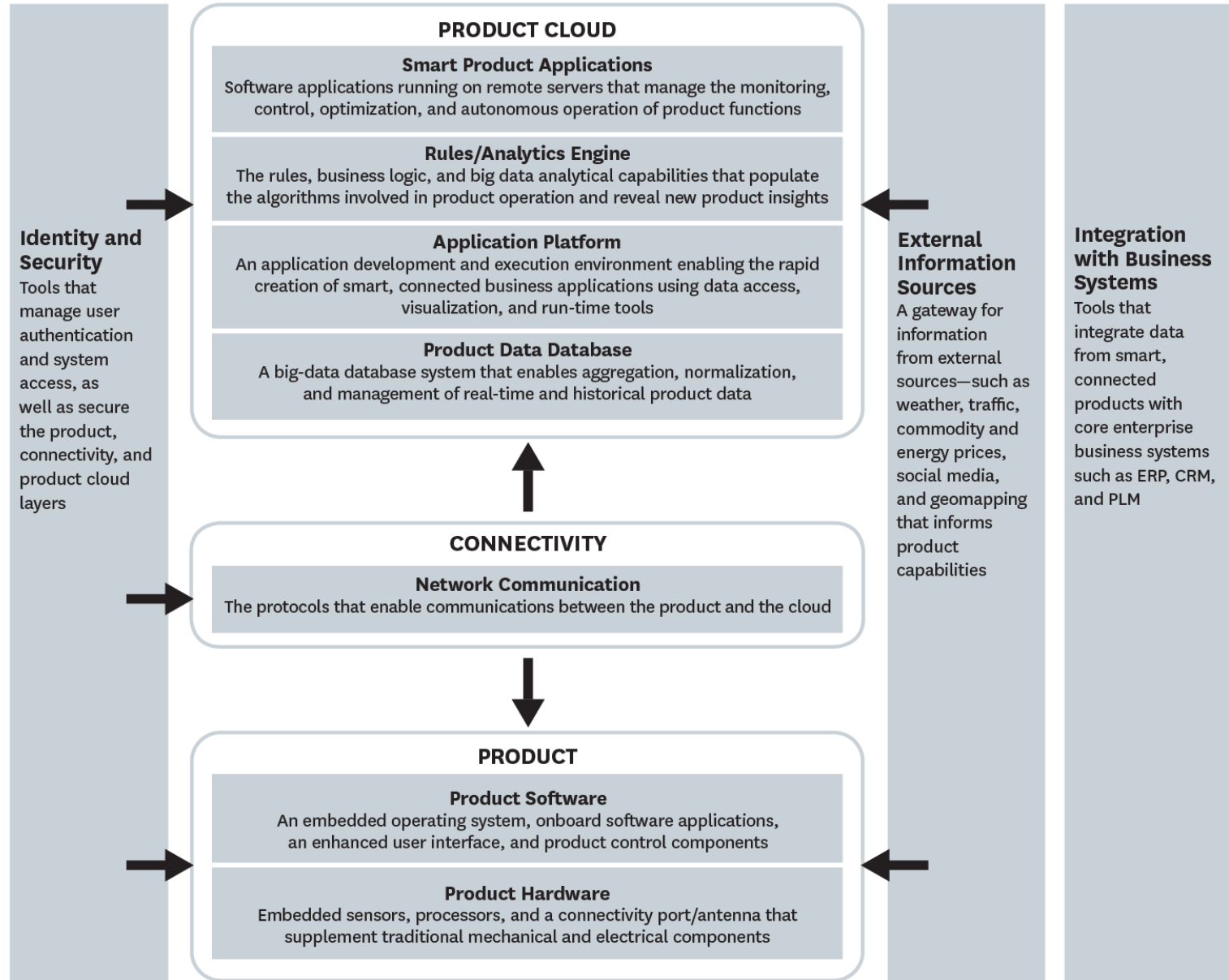
Lawyers



A full Year of continuous dialogue among all parties

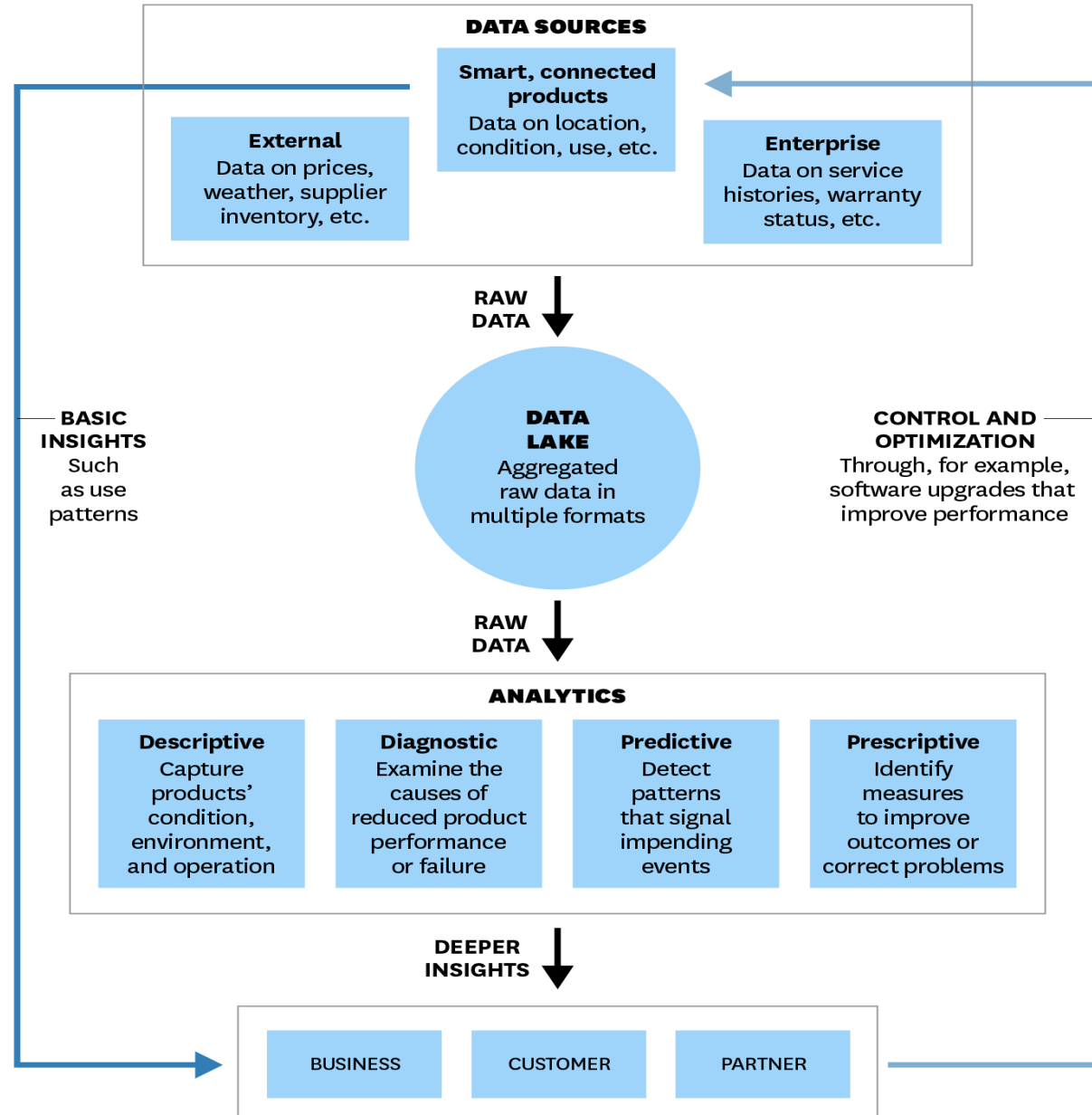


- Data generates growth
- Value Creation thanks to smart connected products



Smart product and data analytics generate new offers

this is why digitalisation is and will remain the engine of future growth



Need of different accounting rules?

| Examples | Separatly acquired | acquired through M&A | Generated internally |
|--------------------------------------|---------------------------|----------------------|--|
| Registered trademark | Yes (acquisition cost) | Yes (fair value) | No |
| Customer datas (Contracts, Files) | | | |
| Technology (patent, software,...) | Yes (acquisition cost) | Yes (fair value) | Development Cost only (research no) |
| Information systems | | | |
| other contracts, concessions,.... | Yes (acquisition cost) | Yes (fair value) | |
| Human capital / Know How | No | No | No |

Actual Accounting rule remove most of the intangible assets from balance sheet

European Directive could support financial valuation on IPR

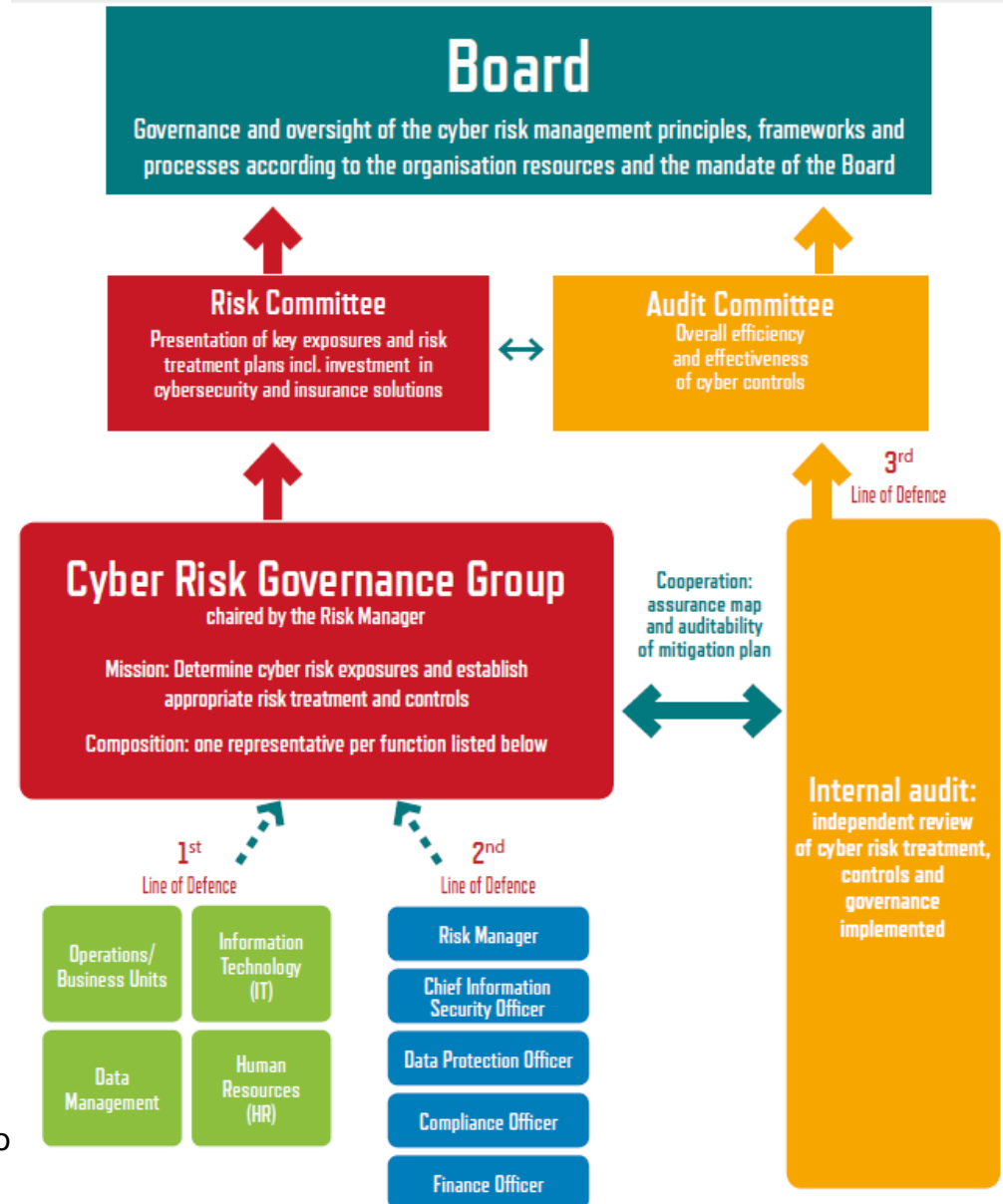
- Directive 2004/48 /EC of the European parliament and of the council of 29th APRIL 2004 on the enforcement of intellectual property rights
- Reparation of the moral and economic prejudice
- Reparation of the benefits made by the other party
- Punitive damage

Cyber Risk and Insurance Credit Ratings

- Lack of reliable actuarial analysis on this line
 - ⇒ *Rating Agencies continue to reach out to its rated entities to get an understanding on the exposure each entity may have and the way those who issue cyber policies could aggregate their exposures*
- Use of models for cyber insurance risk is not prevalent and tested
 - ⇒ *Rating Agencies have been reaching out to various modelling companies to understand their approaches (similarities and differences) and models*
- Current approach to the use of modelling for cyber will be very similar to the way rating agencies treat natural catastrophe and terrorism exposure

Main proposal: a cyber risk governance group

- **A cross-function team headed by the risk manager**
 - Composed of operational functions from the 1st line of defence and key functions from the 2nd line of defence
 - To **determine cyber risk exposures** in financial terms and **design possible mitigation plans**
- **Why cross-disciplinary?**
 - Expertise, by being cross-disciplinary, the group has the **subject and organisational knowledge** to identify the most harmful cyber risks for the organisation and list the suitable responses



Insurance Market Mutation or just sticking to their original mission?



**VS
or
TO**



Recommendations

- Increase companies maturity on corporate cyber risk governance and their exposure to optimize necessary investment and insurance strategy
- Propose a framework on external communication of companies on cyber risk and their exposure
- Clarify board members responsibility and liability related to cyber risk
- Propose international norms on financial evaluation on the impact of intangible assets of companies
- Develop insurance solutions on intangible assets coverage
- Communication on cyber insurance shall be structured and rationalized
- Develop access to data for setting cyber risk modeling and clarifying accumulation risk to allow reinsurance market to be the real engine of insurance market expansion