

PRINCIPLES OF SUSTAINABLE FINANCE

Chapter 6: Integrated reporting - metrics and data

Overview of the book

Part I: What is sustainability and why does it matter?

1. Sustainability and the transition challenge

Part II: Sustainability's challenges to corporates

2. Externalities - internalisation
3. Governance and behaviour
4. Coalitions for sustainable finance
5. Strategy and intangibles – changing business models
6. **Integrated reporting - metrics and data**

Part III: Financing sustainability

7. Investing for long-term value creation
8. Equity – investing with an ownership stake
9. Bonds – investing without voting power
10. Banks – new forms of lending
11. Insurance – managing long-term risk

Part IV: Epilogue

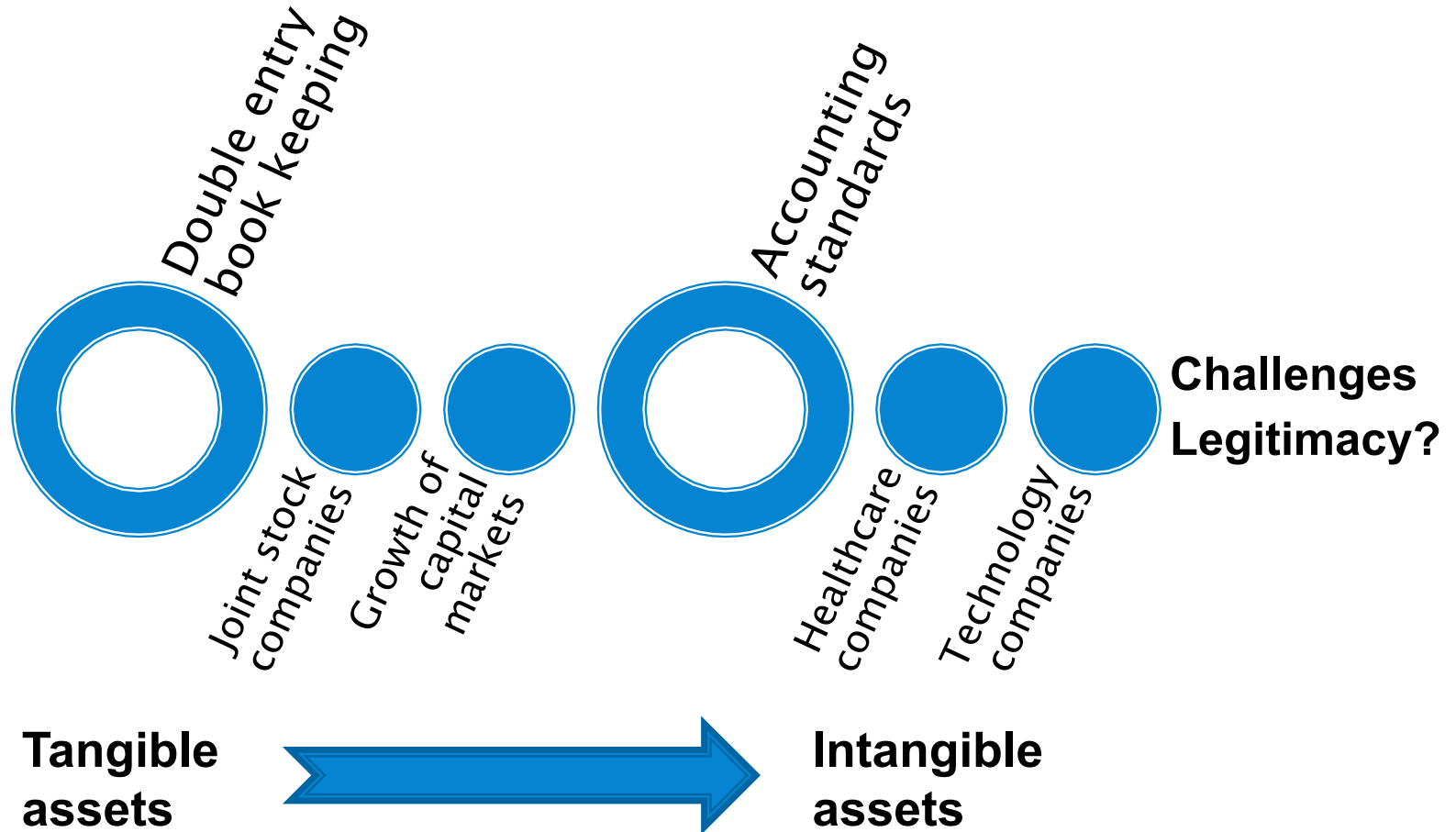
12. Transition management and integrated thinking

Learning objectives – chapter 6

- ▶ describe the benefits and limitations of traditional reporting
- ▶ explain the emergence and relevance of integrated reporting
- ▶ explain the obstacles integrated reporting faces
- ▶ illustrate the characteristics of an integrated report

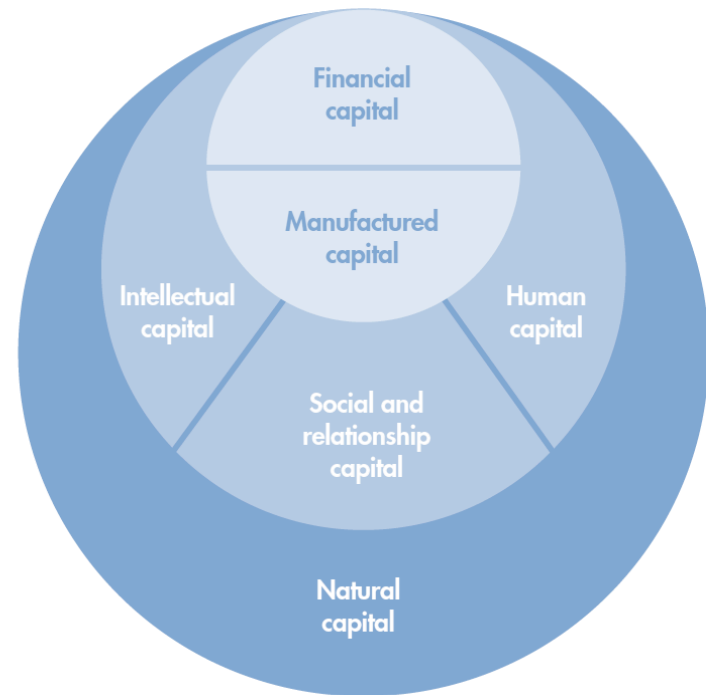
Why does reporting matter?

Reporting



Emergence of integrated reporting

- ▶ Guiding principles
- ▶ Elements of an integrated report
- ▶ IIRC, GRI, SASB
- ▶ 6 capitals



7 guiding principles of <IR>



8 elements of an integrated report

Organisational overview
& external environment

Governance

Business model

Risks & opportunities

Strategy & resource
allocation

Performance

Outlook

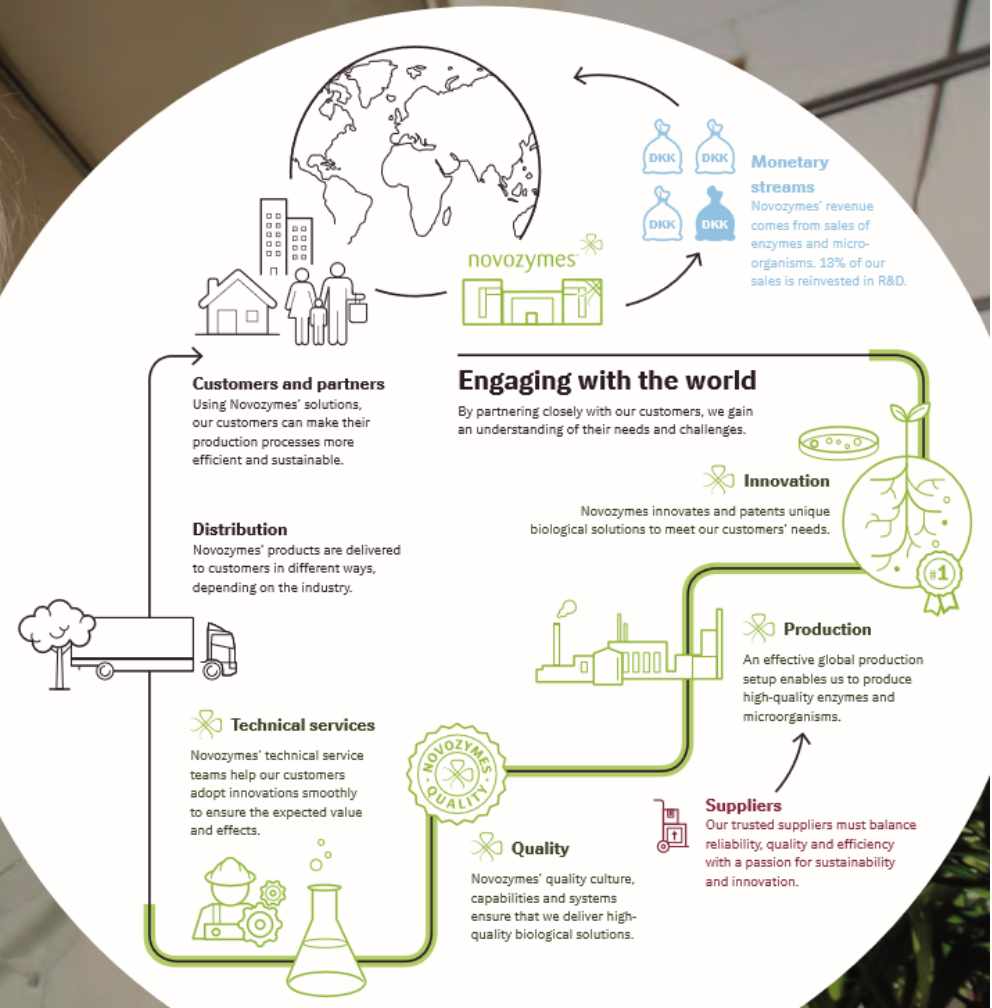
Basis of presentation

Example of <IR> in practice: Novozymes

Business model

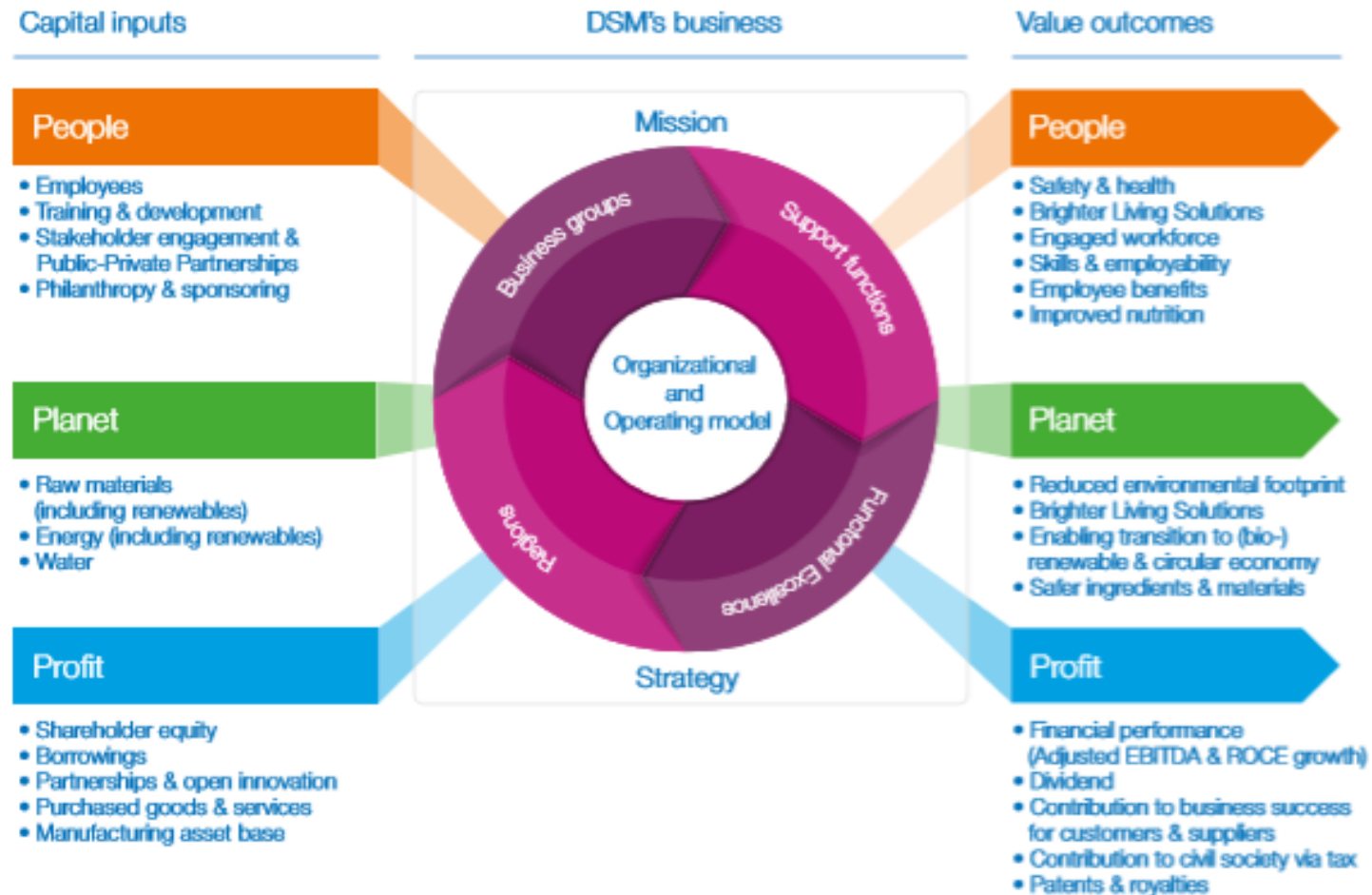
Novozymes produces a wide range of industrial enzymes and microorganisms. Together with our partners, we turn to biology to unlock business opportunities across industries. We create microorganisms that help farmers achieve a better harvest and support sustainable agriculture. And we deliver biological innovation to producers of ethanol, bread, detergents, textiles and many other products. In brief, our business model is to develop biotech solutions to the world's pressing problems, profit from doing so, and then reinvest in finding more biological answers.

Explore Novozymes'



Example of <IR> in practice: DSM

How DSM creates value for its stakeholders



Imagining a 6 capitals balance sheet (1)

Traditional balance sheet

Assets		Liabilities & Equity	
Cash	800	Interest-bearing debt	1500
Inventory	200	Environmental liabilities	500
Property, plant & equipment (PP&E)	4000	Equity	3000
Total assets	5000	Total liabilities & equity	5000

Market value balance sheet

Assets		Liabilities & Equity	
Net Present Value of projects	12000	Interest-bearing debt	1500
		Environmental liabilities	500
		Equity	10000
Total assets	12000	Total liabilities & equity	12000

Imagining a 6 capitals balance sheet (2)

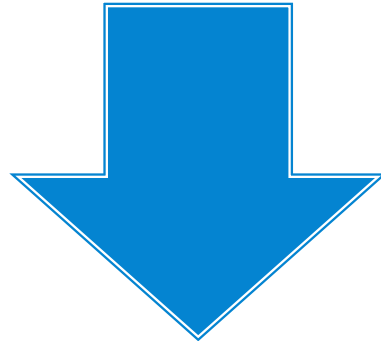
Six capitals balance sheet

Assets		Liabilities & Equity	
Financial capital (cash+inventory)	1000	Negative financial capital (debt)	1500
Manufactured capital (PP&E at replacement cost)	7500	Negative natural capital (liabilities)	4500
Social & relationship capital	1500	Equity	7500
Human capital	500		
Intellectual capital	3000		
Total assets	13500	Total liabilities & equity	13500

Reminder: Traditional balance sheet

Assets		Liabilities & Equity	
Cash	800	Interest-bearing debt	1500
Inventory	200	Environmental liabilities	500
Property, plant & equipment (PP&E)	4000	Equity	3000
Total assets	5000	Total liabilities & equity	5000

<IR>: success or failure?



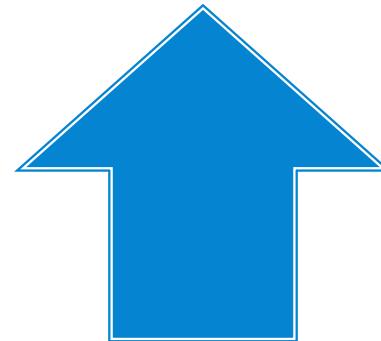
Problems:

- Limited adoption;
- Lack of certification;
- Too much focus on investors?



In favour:

- More meaning;
- More to come...



Examples of metrics

Environmental

GHG emissions: Scope 1, 2 & 3 vs emissions saved

Social

Employee attrition

Health & safety data

Governance

Voting rights, board structure, etc.

Examples of metrics in practice: Novozymes

Key sustainability performance

CO₂ emission reduction

30,000,000



Read more in Note 7.1
Climate change

In 2016, our customers avoided an estimated 69 million tons of CO₂ emissions by applying Novozymes' products. The savings achieved are equivalent to taking approximately 30 million cars off the road.

Employee satisfaction



"Satisfaction and
motivation" score in
annual employee survey

2016 realized

76

2016 target

≥ 75



Water
efficiency

6%



Energy
efficiency

10%



Frequency of
occupational
accidents

2.2

Examples of metrics in practice: DSM

People

Workforce
(at year-end 2018)



20,786

Employee engagement
favorable score
(in %)



71

Number of
nationalities
(at year-end 2018)



98

Frequency Index of
Recordable Injuries
(per 100 DSM employees
and contractor employees)



0.33

Planet

Greenhouse-gas
emissions, total DSM
(in million tons CO₂eq)



1.5

Brighter Living
Solutions
as % of net sales



63

Energy use,
total DSM
(in petajoules)



22.6

Water consumption,
total DSM
(in million m³)



22

Innovation sales
as % of total sales



22

Examples of metrics in practice: Philips

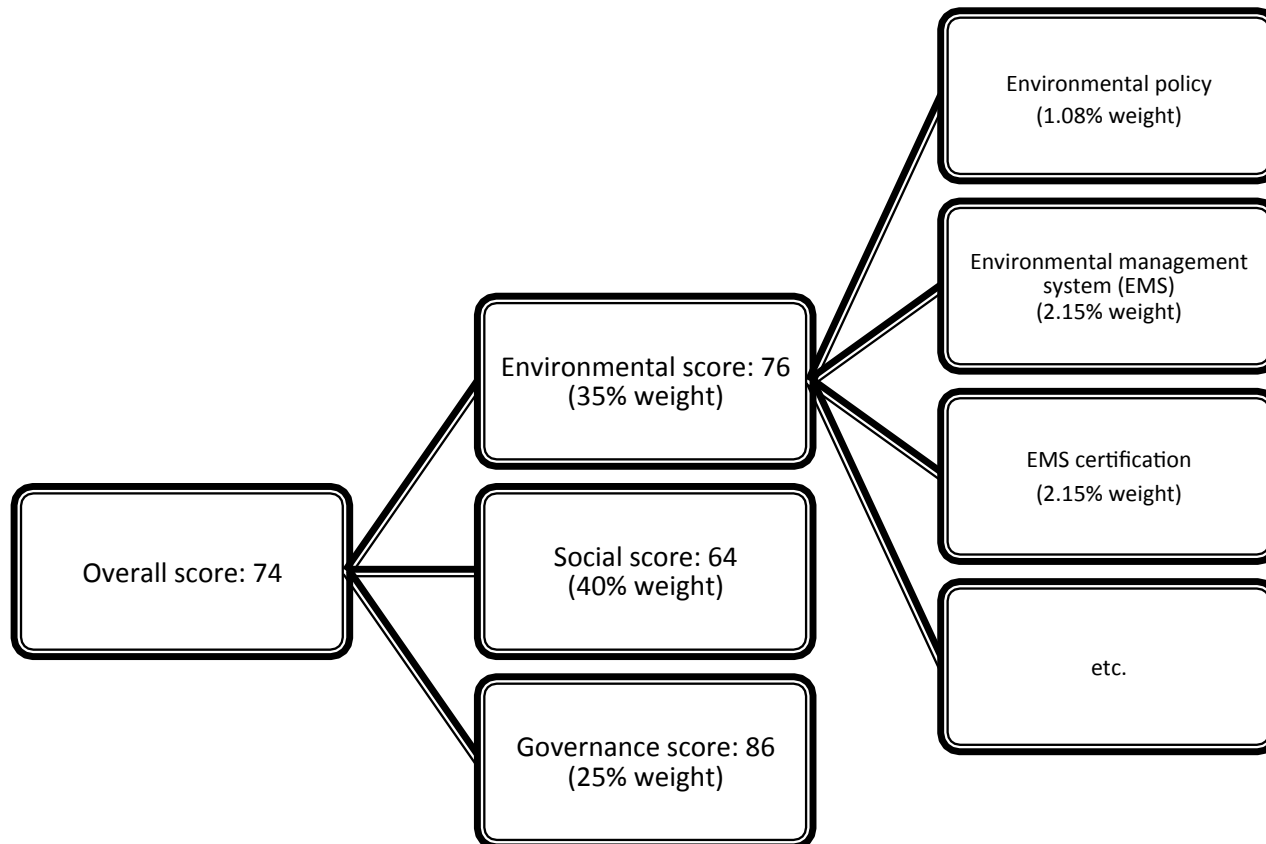
Operational carbon footprint by scope (in kilotonnes CO₂-equivalent)

	2013	2014	2015	2016	2017
Scope 1	44	40	39	42	38
Scope 2	114	109	106	121	58
Scope 3	654	594	612	658	751
Total (scope 1 to 3)	812	743	757	821	847
Emissions compensated by carbon offset projects	0	0	0	0	220
Net operational carbon emissions	812	743	757	821	627

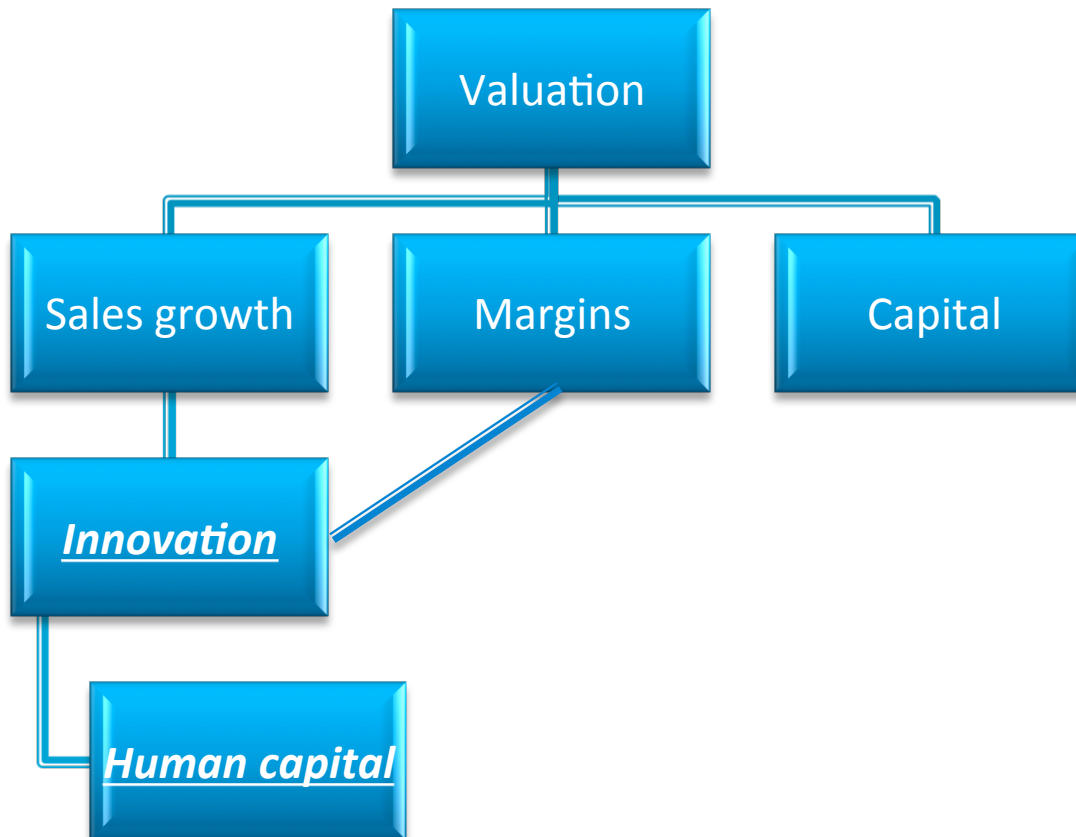
Sustainability data providers

	Raw data	Scores/ratings/advice
Topic focused	Southpole (emissions data)	Equileap (gender equality ratings) Glass Lewis, ISS (shareholder voting advice)
Comprehensive	Reprisk (tracking news on companies)	MSCI, Sustainalytics, RobecoSAM, oekom (all company scores and ratings)

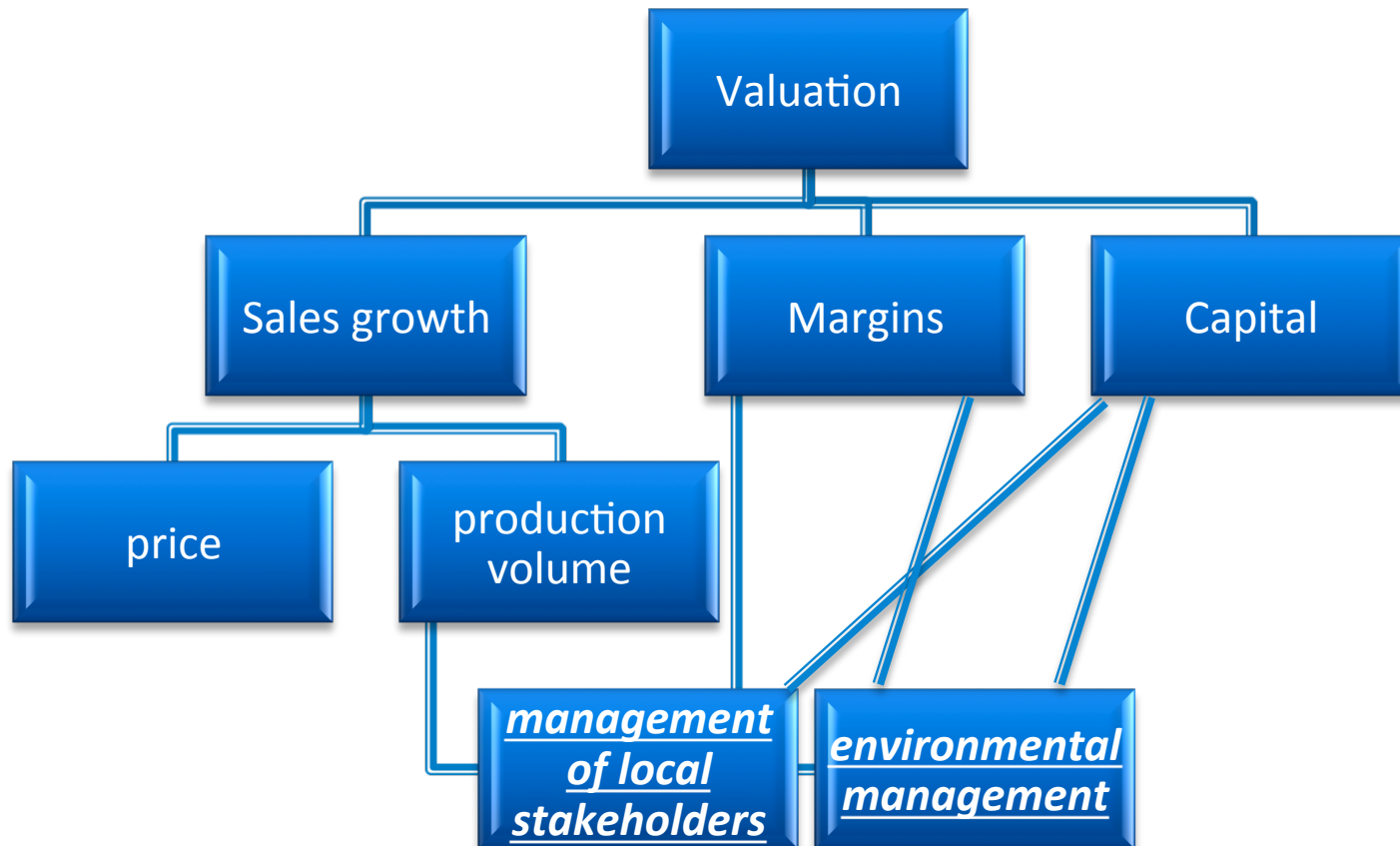
Example of sustainability scoring



Value drivers: Novozymes



Value drivers: Mining



Conclusions

- ▶ Current reporting is incomplete
- ▶ <IR> is a step in the right direction
- ▶ Integrated thinking is even more important than integrated reporting