

# **PRINCIPLES OF SUSTAINABLE FINANCE**

## **Chapter 8: Equity - investing with an ownership stake**

# 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

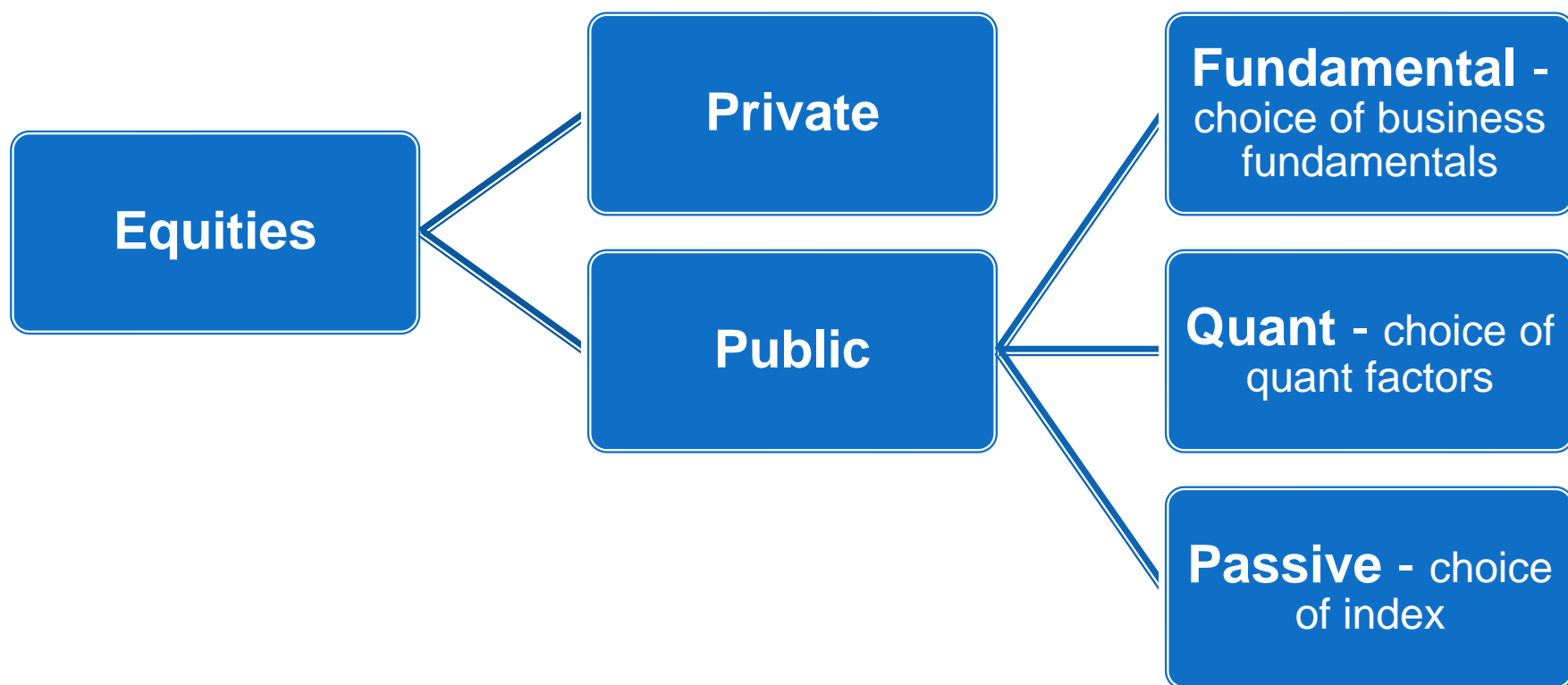
12. Transition management and integrated thinking

# Learning objectives – chapter 8

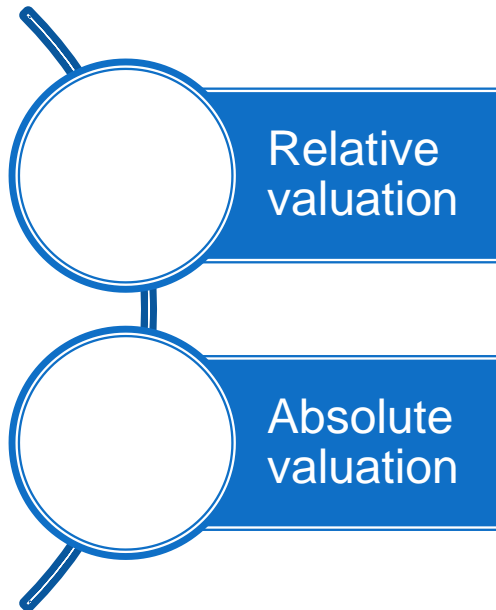
- ▶ describe the state of ESG integration into equities and explain how it could improve both financial and non-financial returns
- ▶ explain the link between ESG integrated analysis, understanding of companies, their value drivers, and their investment case
- ▶ explain how and why the societal function of finance can be exercised more thoroughly in a fundamental approach to equity investing than in quant or passive approaches
- ▶ describe the difference between ESG investing and impact investing

# Basics of equity

Public equity: \$70 trillion



# Equity valuation



$$P = EPS * \frac{P}{E}$$

$$V_0 = \frac{FCF_1}{(1+WACC)} + \frac{FCF_2}{(1+WACC)^2} + \dots + \frac{FCF_N + V_N}{(1+WACC)^N}$$

# DCF Equity valuation

	WACC		TV growth										
	8%		2%										
	FY2014	FY 2015	FY 2016	FY 2017	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e
Sales growth	6%	11%	6%	7%	6%	6%	6%	6%	6%	6%	6%	6%	2%
EBIT margin	11%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
Tax rate	20%	21%	30%	29%	28%	28%	28%	28%	28%	28%	28%	28%	28%
Depreciation/sales	6%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
CAPEX/sales	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	5%
NWC/sales	9%	9%	9%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Sales	6233	6910	7348	7856	8327	8827	9357	9918	10513	11144	11813	12521	12772
EBIT	691	807	906	937	993	1053	1116	1183	1254	1329	1409	1493	1523
Taxes on EBIT	138	172	276	269	278	295	312	331	351	372	394	418	427
NOPLAT	553	635	630	668	715	758	804	852	903	957	1014	1075	1097
Depreciation	361	377	352	405	416	441	468	496	526	557	591	626	639
Gross CF	914	1012	982	1073	1131	1199	1271	1348	1428	1514	1605	1701	1735
CAPEX	399	430	458	472	500	530	561	595	631	669	709	751	639
increase in NWC	37	33	32	28	40	42	44	47	50	53	56	59	21
Gross investment	436	463	490	500	539	572	606	642	681	722	765	811	660
FCF	270	751	1022	1473	592	628	666	705	748	793	840	891	1076
<b>Terminal Value (TV)</b>													17930
<b>period, in years</b>					1	2	3	4	5	6	7	8	8
<b>Discount Factor</b>					0.926	0.858	0.794	0.735	0.681	0.630	0.583	0.540	0.540
<b>Present Value</b>					549	538	528	519	509	499	490	481	9685
<b>Sum of Present Values: Enterprise Value (EV)</b>					13798							CV/EV	70%
<b>Net debt</b>					1328								
<b>Equity value</b>					12470								
<b>Number of shares outstanding</b>					213								
<b>Stock price</b>					58.5								
<b>Current stock price</b>					60.2								
<b>Implied upside</b>					-3%								
Net Working Capital (NWC)	566	599	631	659	699	740	785	832	882	935	991	1050	1071
Invested Capital	3982	4068	4206	4301	4424	4554	4692	4838	4993	5158	5332	5517	5538
ROIC	14%	16%	15%	16%	17%	17%	18%	18%	19%	19%	20%	20%	20%

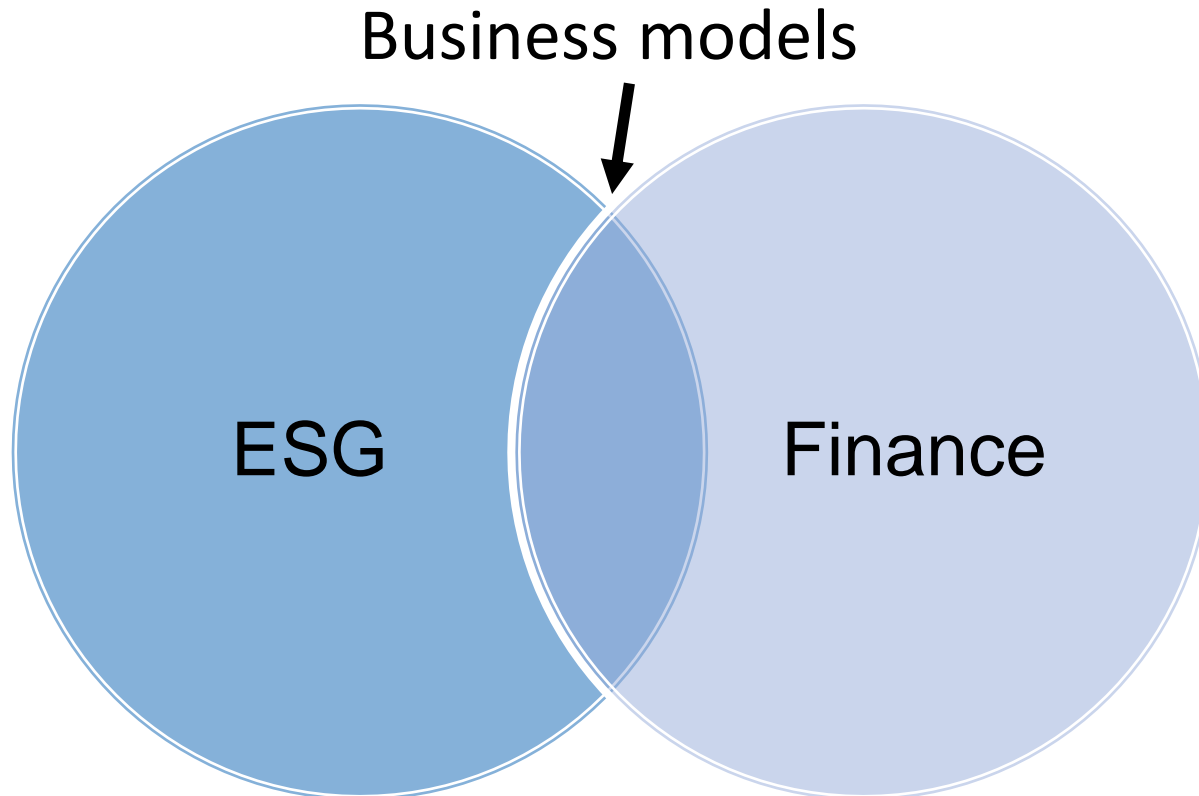
# DCF Equity valuation – changed EBIT

	WACC		8%		TV growth		2%														
	FY2014	FY 2015	FY 2016	FY 2017	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e								
Sales growth	6%	11%	6%	7%	6%	6%	6%	6%	6%	6%	6%	6%	2%								
EBIT margin	11%	12%	12%	12%	12%	<b>13%</b>	<b>14%</b>	<b>15%</b>	<b>16%</b>	<b>16%</b>	<b>16%</b>	<b>16%</b>	<b>16%</b>								
Tax rate	20%	21%	30%	29%	28%	28%	28%	28%	28%	28%	28%	28%	28%								
Depreciation/sales	6%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%								
CAPEX/sales	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	5%								
NWC/sales	9%	9%	9%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%								
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FCF	270	751	1022	1473	591	696	805	925	1056	1119	1187	1258	1450								
<b>Terminal Value (TV)</b>													24172								
period, in years													1	2	3	4	5	6	7	8	8
Discount Factor													0.926	0.858	0.794	0.735	0.681	0.630	0.583	0.540	0.540
Present Value													549	597	639	680	719	705	692	679	13056
Sum of Present Values: Enterprise Value (EV)													18317							CV/EV	71%
Net debt													1328								
Equity value													16989								
Number of shares outstanding													212								
Stock price													79.8								
Current stock price													60.2								
Implied upside													32%								
Net Working Capital (NWC)	566	599	631	659	689	740	785	832	882	935	991	1050	1071								
Invested Capital	3982	4068	4206	4301	4424	4554	4692	4838	4993	5158	5332	5517	5538								
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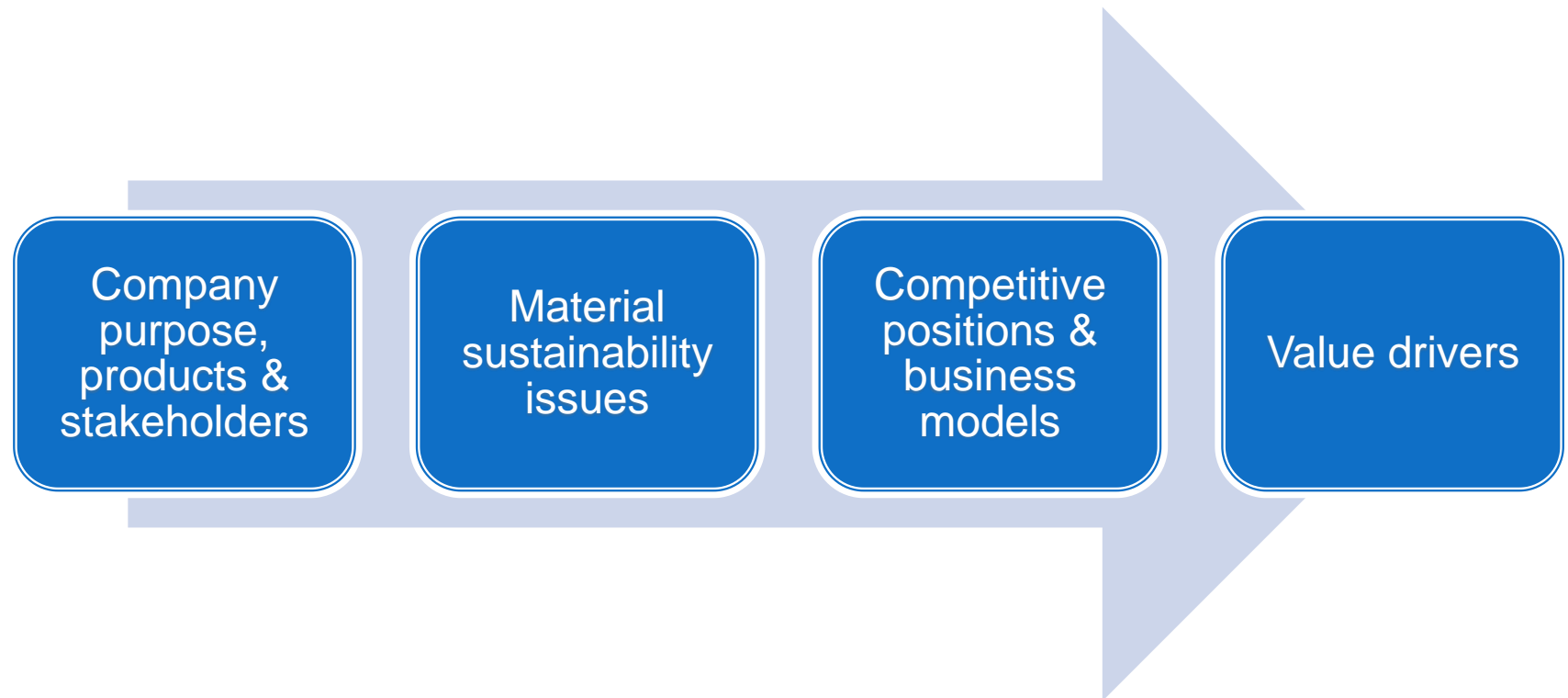
# Why does sustainability matter to equity investing?



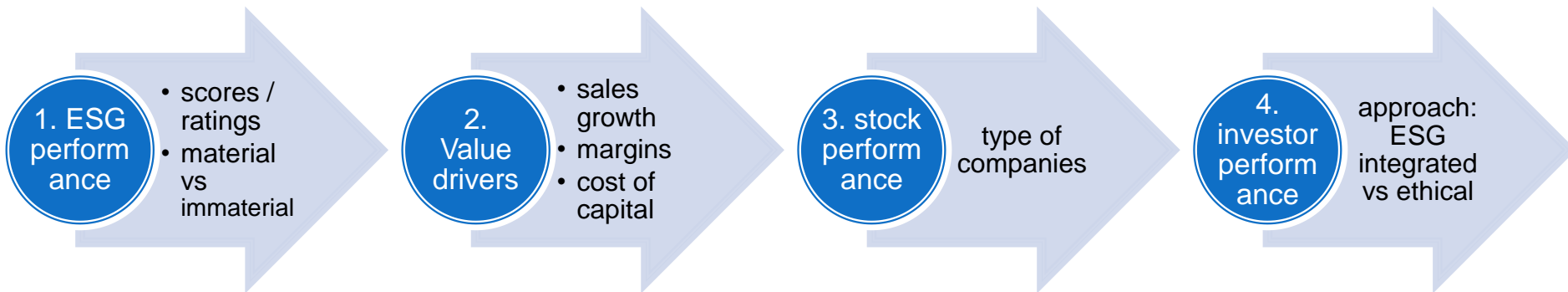
# Relevance of sustainability to equity



# Relevance of sustainability to equity



# Evidence



# ESG integration into equities

Why? Does it happen? How?

Suitability of the approach	Fundamental equities	Quant equities	Passive equities	Explanation
<b>Exclusionary screening</b>	High	Medium-high	Medium-high	Can be done on scores
<b>Best in class</b>	High	Medium	Low	Can be done on scores, to a certain degree
<b>Thematic investing</b>	High	Medium	Low	Fundamental analysis is needed
<b>Active ownership</b>	High	Low	Low	Fundamental analysis is needed, which can be bought externally with loss of quality
<b>Impact investing</b>	High	Very low	Very low	Fundamental analysis is needed
<b>ESG integration</b>	High	Very low	Not at all	Fundamental analysis is needed

# ESG integration into fundamental equities

Steps in the Value driver adjustment (VDA) approach:

1) Identify & focus on the most material issues



2) Analyse the impact of these material issues on the individual company



3) Quantify competitive (dis)advantages to adjust for value driver assumptions



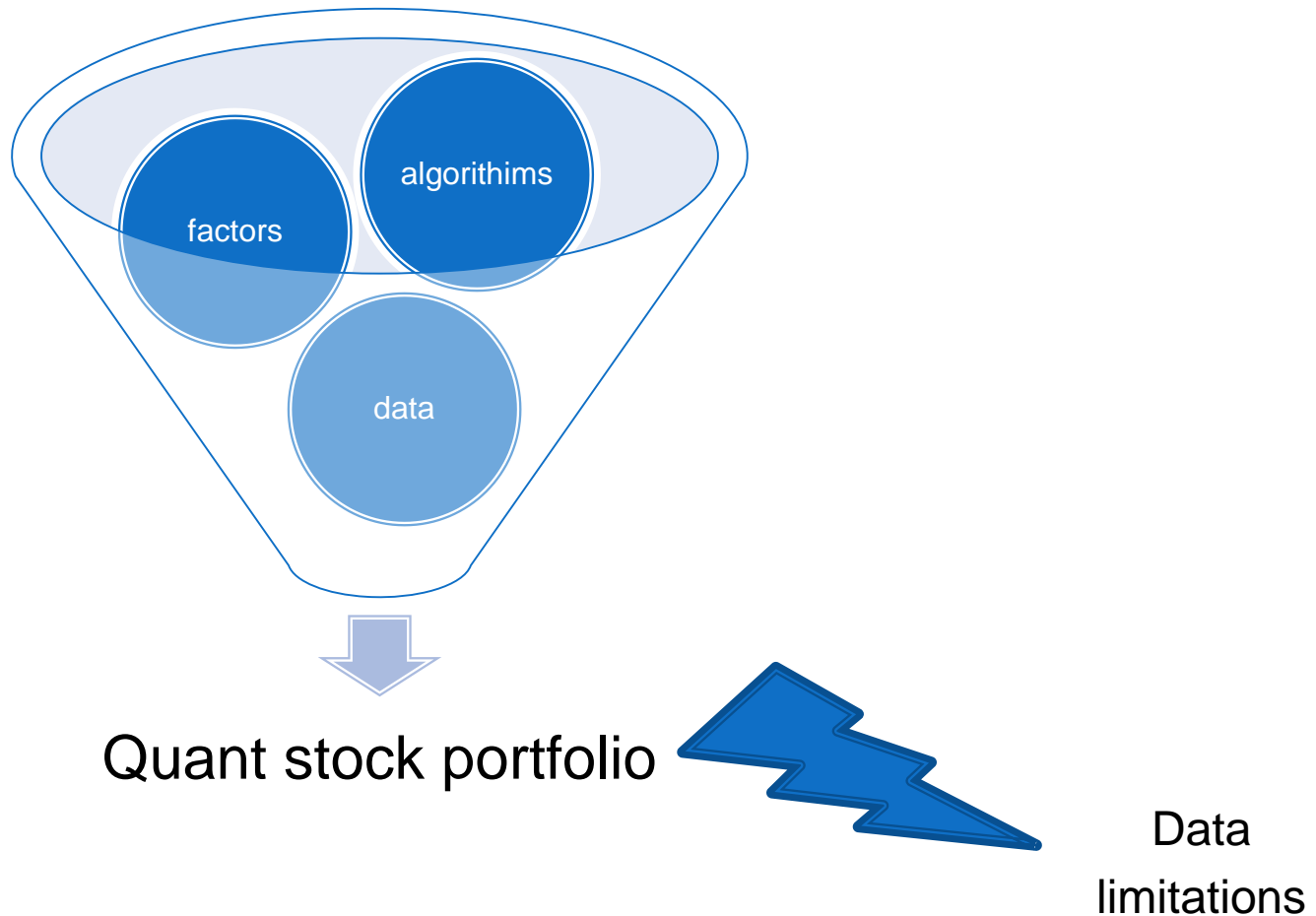
4) Have an active dialogue

# ESG integration into fundamental equities

KUKA VDA example:

Value driver	Sales growth	Margins	Cost of capital	Target price
<b>Benchmark (i.e. performance excluding ESG advantage)</b>	5-6%	5-6%	10%	EUR 67
<b>Impact from ESG factors</b>	Innovation & high-growth markets: +200bps	Innovation: +100bps	Capital management - 100bps	EUR 32
<b>Total</b>	7-8%	6-7%	9%	EUR 99

# ESG integration into quant equities



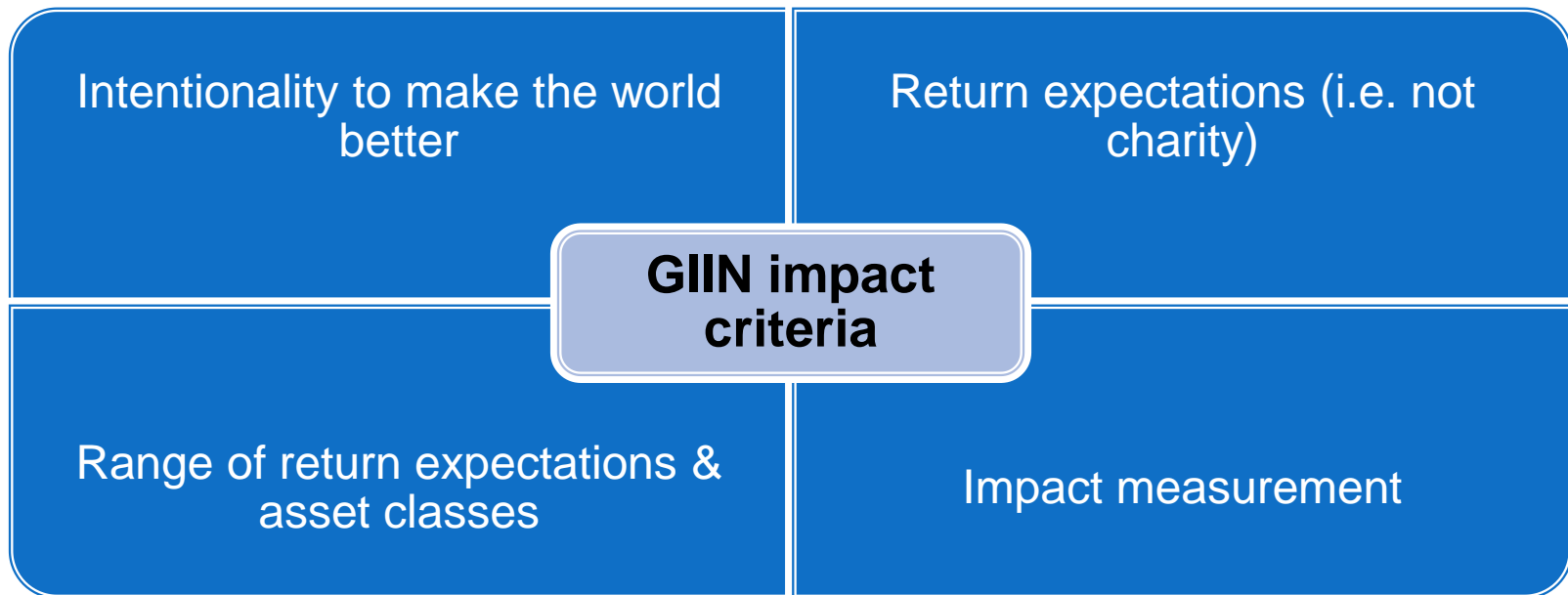
# ESG integration into passive equities



This is not really integration, but it does move capital away from the worst companies



# Impact investing



# Impact investing: challenges

Data

Scale






Barriers to change

Perception problems

Complex investment chains

# Impact investing

Criteria by the Impact Management Project:

 <b>WHAT</b> What outcomes does the effect relate to, and how important are they to the people (or planet) experiencing it?	 <b>HOW MUCH</b> How much of the effect occurs in the time period?	 <b>WHO</b> Who experiences the effect and how underserved are they in relation to the outcome?	 <b>CONTRIBUTION</b> How does the effect compare and contribute to what is likely to occur anyway?	 <b>RISK</b> Which risk factors are significant and how likely is it that the outcome is different from the expectation?
<p style="text-align: center;">▼</p> <p>Important negative outcome(s)    Neutral outcome(s)    Important positive outcome(s)</p> <p>←----- -----→</p>	<p style="text-align: center;">▼</p> <p>Marginal effect                      Deep effect</p> <p>←-----&gt;</p> <p>For few                      For many</p> <p>←-----&gt;</p> <p>Short-term                      Long-term</p> <p>←-----&gt;</p> <p>Slowly                      Quickly</p> <p>←-----&gt;</p>	<p style="text-align: center;">▼</p> <p>Well-served                      Under-served</p> <p>←-----&gt;</p>	<p style="text-align: center;">▼</p> <p>Much worse than what is likely to occur                      Much better than what is likely to occur</p> <p>←-----&gt;</p>	<p style="text-align: center;">▼</p> <p>Low risk                      High risk</p> <p>←-----&gt;</p>

# Impact investing example (1)

NN IP's impact criteria applied to Novozymes:

Impact criterion	Company assessment
<b>Material:</b> relevance to value drivers sales, profits, capex, and risk	Superior performance and energy savings at clients help Novozymes grow twice as fast as the chemicals industry at twice the profitability
<b>Intentional:</b> deliberate choice, strategy, purpose	<ul style="list-style-type: none"><li>• Corporate strategy and business model are built on providing more environmentally friendly solutions</li><li>• Novozymes was involved in setting the SDGs</li><li>• Works with partners to develop and drive adoption of proven biological innovations that improve feed efficiency and animal health</li><li>• One of few companies that reports on its impact, with serious targets</li></ul>
<b>Transformational:</b> does the company drive major change for the better by means of its business model, technology, scale or standards?	Enzymes have the potential to replace nearly all chemical processes, which would mean much less environmental footprint (CO2 emissions and waste).

# Impact investing example (2)

NN IP's impact KPIs applied to Novozymes:

	Emissions saved, SDG 7	Innovation, SDG 9	Health & well-being, SDG 3
<b>Ideal impact KPI</b>	Emissions saved	Value of innovations to society	Improvement in human health
<b>Actual KPIs reported</b>	Emissions saved	#transformative innovations; #active patent families; R&D/sales; #R&D employees; pipeline	#people reached with biological solutions
<b>Number</b>	69 mn ton	8 new products in 2016; 13% R&D/sales; 1400 R&D employees; 1123 active patent families	Reached approximately 5 billion consumers with more than one of their solutions on a weekly basis – 100 million more than in 2015
<b>Target</b>	Save 100 mn ton in 2020	Deliver 10 transformative innovations from 2015 to 2020	6 billion people reached with biological solutions by 2020
<b>Engagement on KPIs</b>	Not needed	Get more granularity	Get detail on quality - focus

# Conclusions

- ▶ Equity investors have strong incentives to help companies achieve the conditions for long-term value creation
- ▶ However, most equity investors fail to properly take material sustainability issues into account
- ▶ Fundamental equity investing is more suitable for ESG integration than quant and passive
- ▶ Impact investing is essentially an extreme form of sustainability integration that starts with the intention to make the world better