CORPORATE FINANCE FOR LONG-TERM VALUE

Chapter 2: Integrated Value Creation

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The BIG Picture

- Many companies are currently value destructive on SV and EV

Solution

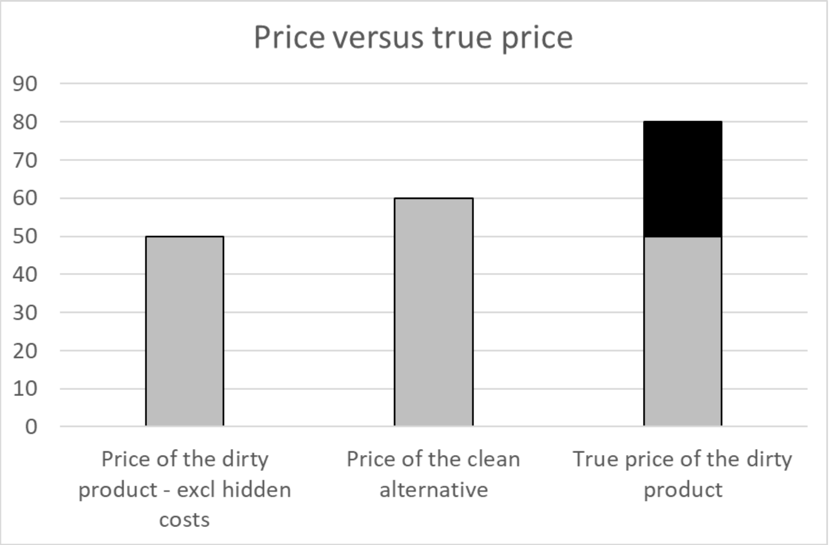
- Corporate strategy is starting point for value creation
  - Challenge 1: incorporate social and environmental goals in strategy
  - Challenge 2: move from static to dynamic perspective
- Envisage transition pathways towards value creation on SV and EV
- A company’s transition preparedness is key determinant of its long-term value

What is value creation?

- In financial terms, **value creation** is defined as an increase in the net present value (NPV) of a company’s projects
- FV is often generated at the expense of SV and EV as resources are depleted without sufficient investments in maintaining them
- **Responsible companies** manage for integrated value creation (profit and impact) rather than merely shareholder value (profit)

The alignment of FV, SV and EV

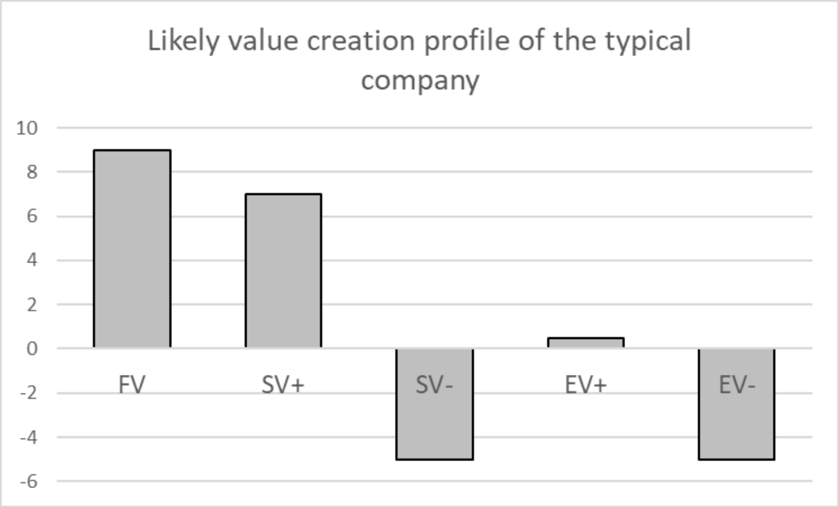
- **External impacts** (also called externalities) are costs or benefits that are created by organisations or persons but whose costs are borne by society as a whole
- A way to improve the alignment between FV, SV and EV is to ensure that companies charge **true prices** or **integrated prices** (prices that include all hidden costs)



Source: True Price (2020)

The alignment of FV, SV and EV

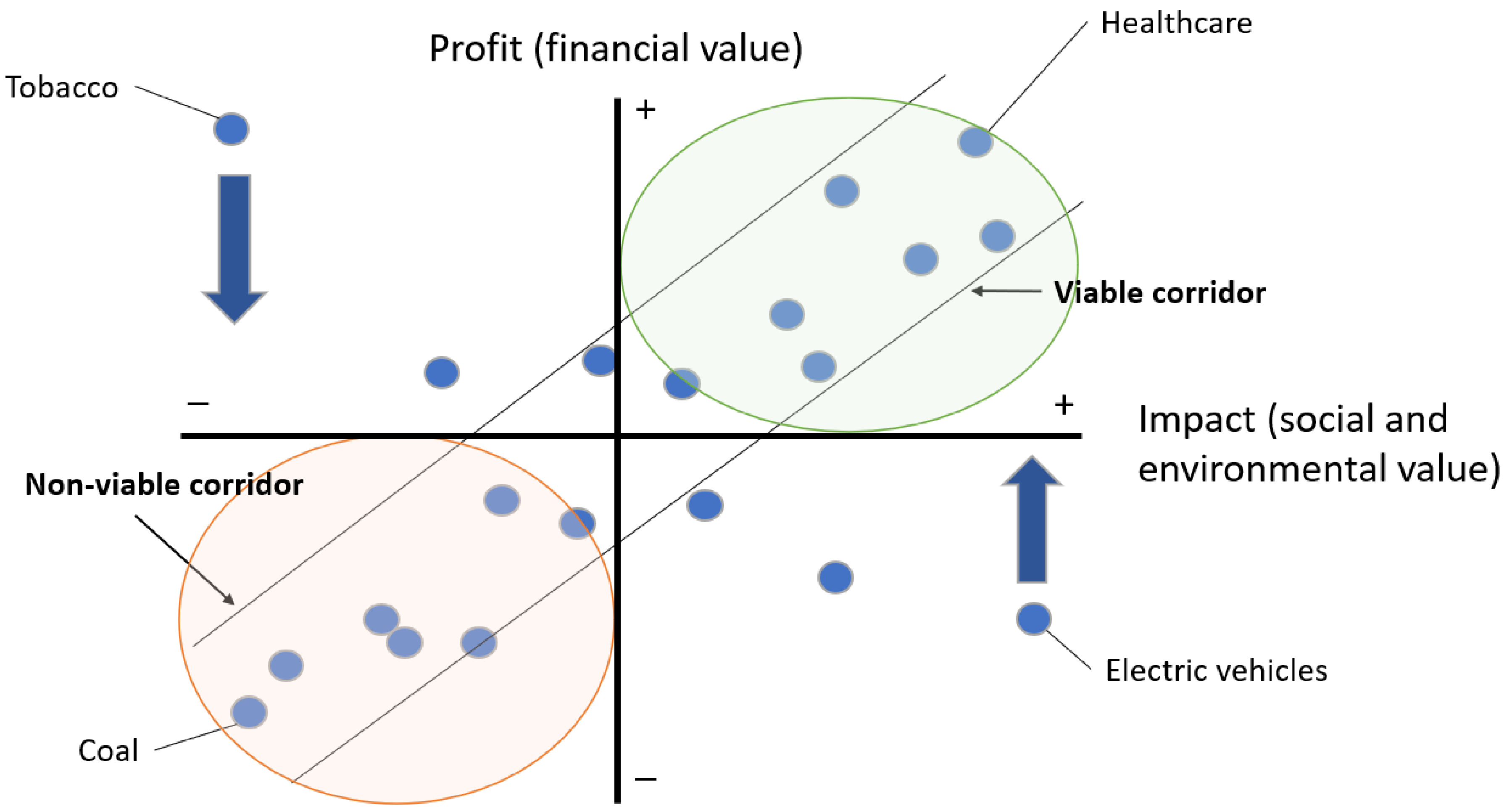
- Currently, many companies are **value destructive** on SV or EV
- For society and the economy to **operate within social and planetary boundaries**, we need companies on aggregate to stop being value destructive on SV and EV



Why is it in companies' interest to manage for integrated value?

- If company management neglects SV or EV, that will hurt long-term FV as well
- Ethical case - license to operate -> corporate responsibility
  - US survey shows that 63% of US citizens (including 71% of millennials) expect companies to contribute to social and environmental challenges (Cone Communications, 2017)
  - Companies that create FV at the expense of SV or EV are likely to lose their license to operate at some stage (Kurznack et al, 2021)
- Business case – long-term value creation
  - Companies that create value on SV and EV are more likely to be value creative on FV in the long run as well
  - As external impacts are being internalised, they affect FV

Long-term alignment of profit and impact



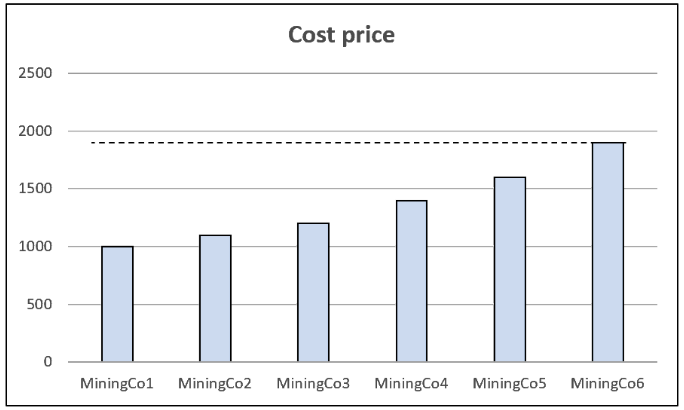
Internalisation

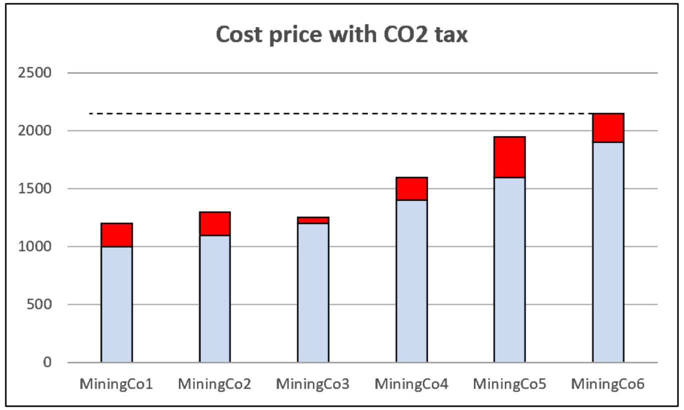
- Rationally, some companies are better off if they can continue to externalise their large costs on SV and EV, if:
  1. Companies are not interested in double materiality (see slide below)
  2. There is no threat of internalisation
- We distinguish four driving forces behind the internalisation of SV and EV into FV:
  1. License to operate
  2. Regulation and taxation
  3. Technological advancement
  4. Customer preferences

Forced internalisation

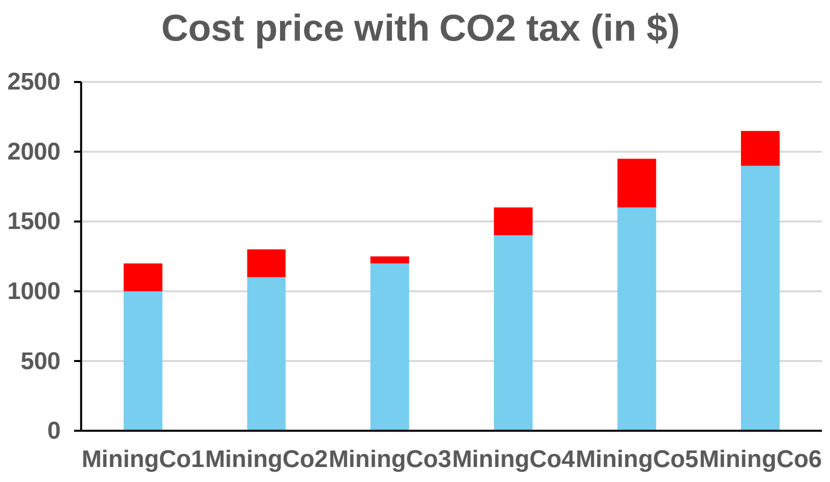
- When internalisation happens it's not necessarily the worst polluters that are hit hardest
  - The impact depends on the company's **preparedness** and the relative size of its external impacts versus alternatives

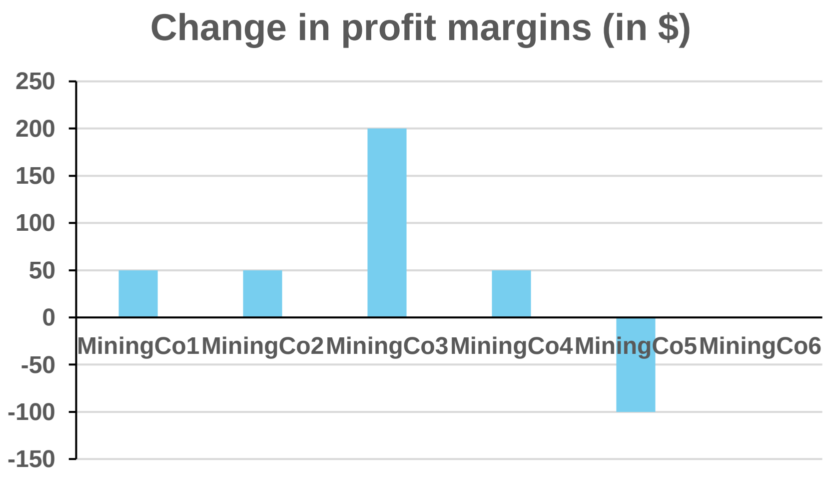
- The relationship between integrated prices and integrated profits is not linear. An integrated price can lead to higher costs for a producer and still increase profits





Forced internalisation





- Conclusion: mining company 5 was least prepared and 3 most prepared

Key players in internalisation

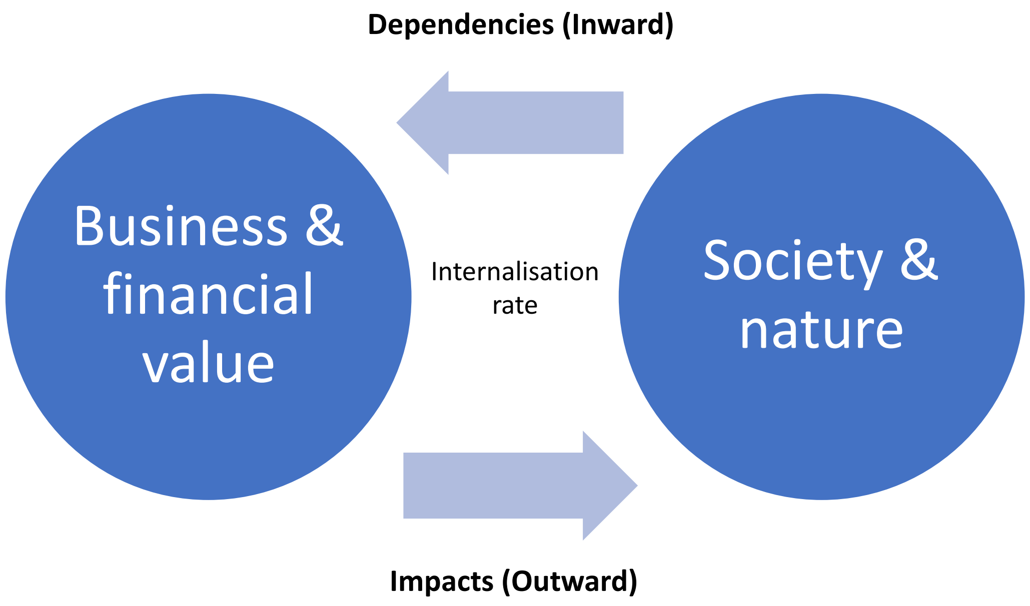
Several players are relevant for internalisation – their roles are largely complementary

1. **Government**: prime mover setting regulation and taxation; also active role (e.g. initial investor) to accelerate sustainability transitions
2. **Investors**: can incorporate ESG in lending + invest decisions; engagement with companies to speed up transitions to sustainable business models and/or exit (see Chapter 3)
3. **Companies**: can incorporate costs of externalities into business practices -> managing for integrated value (this book)
4. **Consumers**: may buy sustainable products and services; sharing / peer-to-peer economy, where consumers mutualise access to products instead of ownership
5. **Civil society**: non-governmental organisations (NGOs) can raise awareness of S + E issues through public voice in the media -> to stimulate other players to act (see Chapter 14)

Double materiality

- The concept of double materiality means that one is mindful of the company's relation with society and nature in both directions:
  1. Company's dependencies on society and nature (inward)
  2. Company's impact on society and nature (outward)

- Finance typically cares about the first (ESG risk) and ignores the second (impact)
  - Solution: steering on integrated value (profit and impact)



Value Creation Matrix

	S + E value destroying	S + E value creating
F value creating	Quadrant 1 Overexploitation	Quadrant 2 Win-win
F value destroying	Quadrant 3 Collapse	Quadrant 4 Charity

Value Creation Matrix -> transition

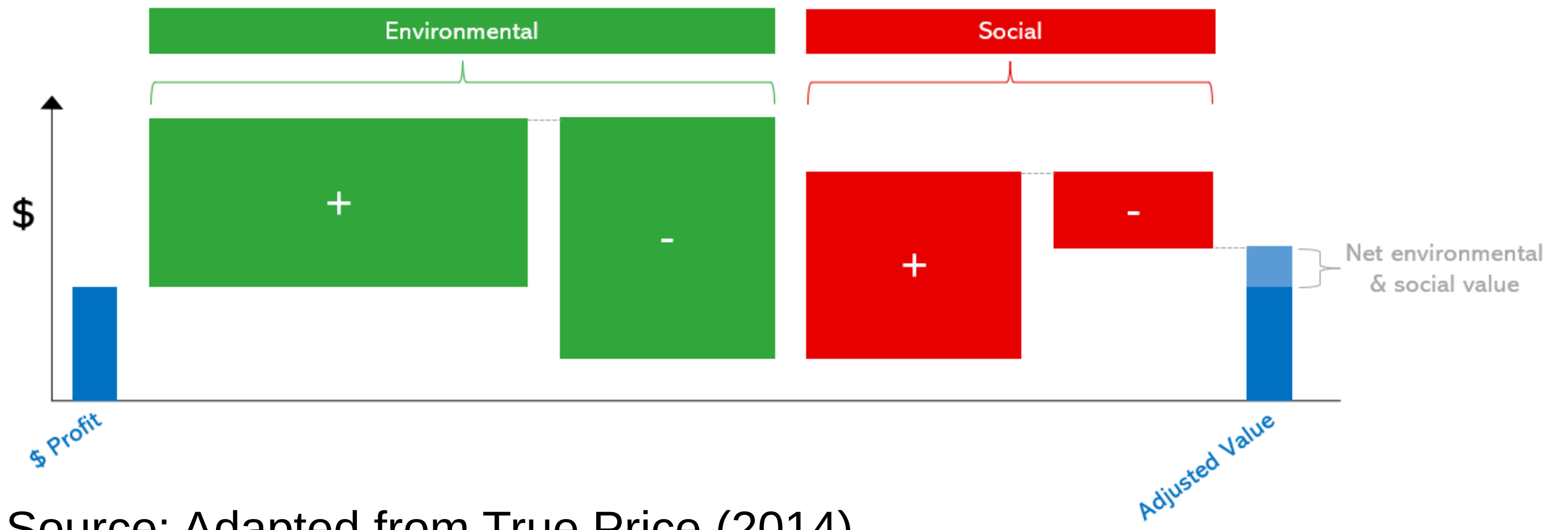
	S + E value destroying	S + E value creating
F value creating	Quadrant 1 Overexploitation	Quadrant 2 Win-win
F value destroying	Quadrant 3 Collapse	Quadrant 4 Charity

Successful transition

Unsuccessful transition

Measuring historical value creation

- Measuring SV or EV takes a three-step process:
  1. Determine material S and E issues
  2. Quantify the S and E issues in their own units (Q)
  3. Put a monetary value on those S and E units through shadow prices (P)



Source: Adapted from True Price (2014)

Estimating future value creation

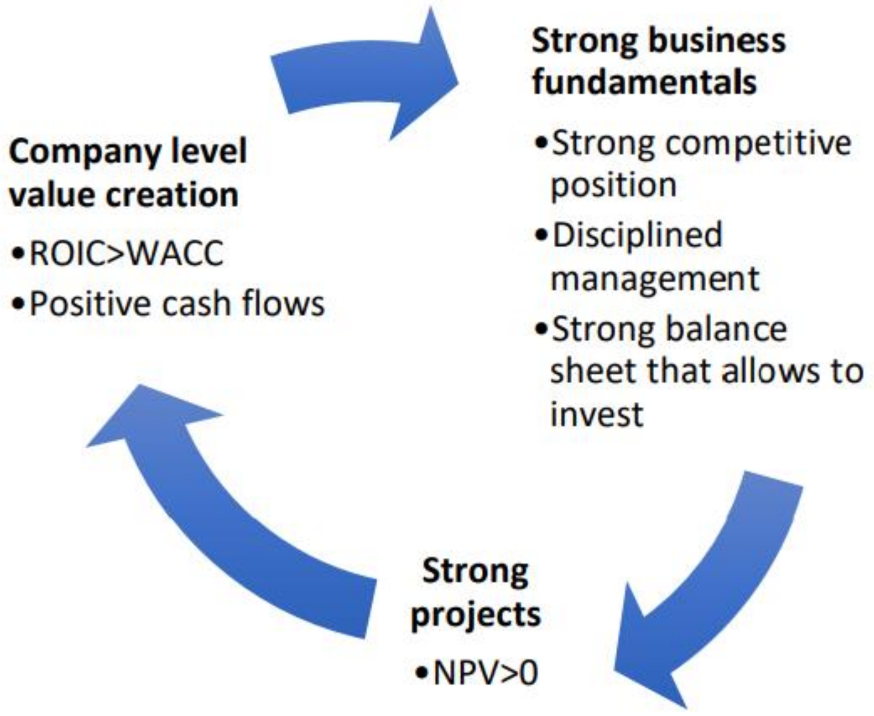
- Future value destruction can be estimated by extrapolating its units and shadow price

	2022	2023	…	2030
Expected units (1)				
Shadow price (2)				
Expected value destruction (3)=(1)x(2)				

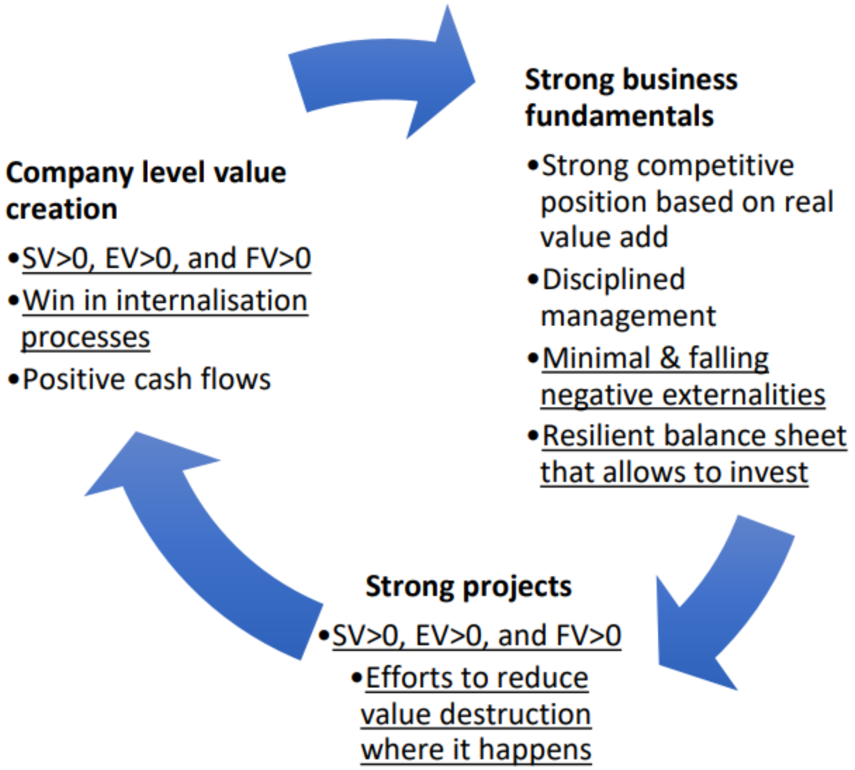
- It is not only important to understand whether companies are value creative or value destructive on SV, EV, and FV
- But it is also important to understand how to create or destroy such value and how they perform versus peers

Value management

Value management (FV only)



In the integrated view:



Intangible assets in financial reporting

- Significant parts of FV do not appear on corporate balance sheets.
- The financial value of companies has shifted from tangible assets (land, buildings & machinery, and financial assets) to intangibles (human capital, intellectual property (IP), processes, data and innovation)

Tangible assets (on-balance)

- Cash
- Property, plant & equipment

Intangible assets (on-balance)

- Brands
- Licenses
- Goodwill
- Etc.

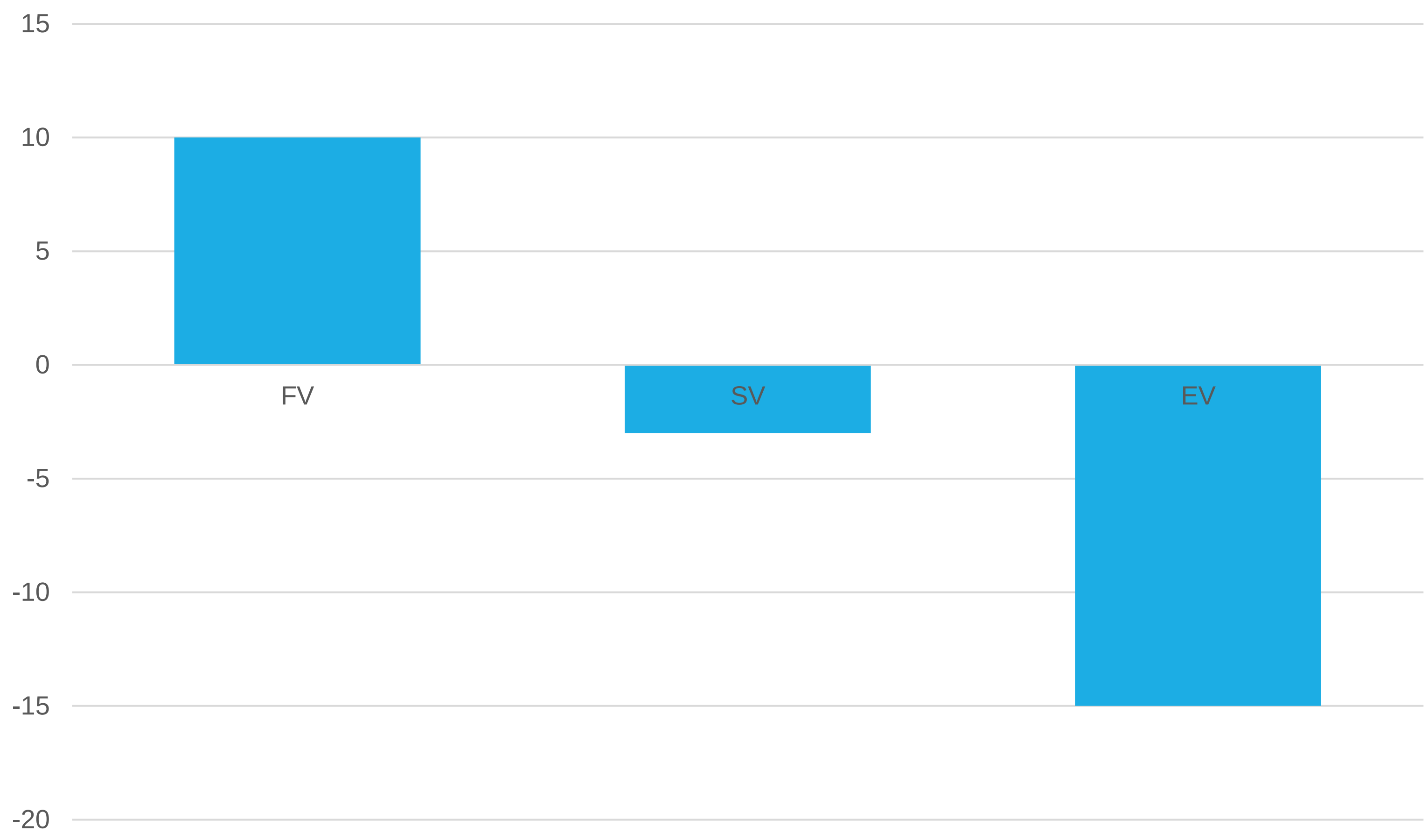
Intangible resources (off-balance)

- Innovation power
- Human capital
- Non-capitalised brands
- Etc.

SV and EV in reporting

- SV and EV tend to be almost completely off-balance sheet
- This is only partly mitigated by sustainability reporting
- Companies need to be held more accountable and take more accountability to perform integrated reporting
- This allows investors and other stakeholders to make reasonable estimates of companies' value creation profiles

Corporate Value Creation Profile



Where does value come from?

- Since integrated value means that FV, SV and EV need to be positive, this raises the question of what to prioritise and how to balance these types of value
  - Choice of parameters *a* and *b* by company board; FV has parameter 1
  - $IV = FV + a \cdot SV + b \cdot EV$
- How do companies know what to focus on?
- Focus and balancing should depend on the company's:
  1. Purpose
  2. Area(s) of value destruction

Purpose

- A company finds focus in its mission or purpose (Mayer, 2018)
  - Why and for what does the company exist?
  - What societal need does it serve?
  - What value does it provide for its customers?
  - How does it do that in the best way?
  - What type of value should it focus on, without losing sight of the other types?

Strategy

- Based on its mission, focus, and competitive landscape, a company can build its strategy
- A strategy can be described as the plan chosen to achieve a desired future state
- Hambrick and Fredrickson (2001) claim a strategy needs to have five parts:
  1. Arenas: in which markets is the company going to be active?
  2. Vehicles: how is it going to get there?
  3. Differentiators: how can the company win in the marketplace?
  4. Staging: what will be the speed and sequence of moves?
  5. Economic logic: how can returns be obtained?

Business model

- Johnson et al. (2008) argue that a successful business model has three components:
  - **Customer value proposition**: helps customers perform a specific 'job'
  - **Profit formula**: generates value for the company
  - **Key resources and processes**: the people, technology, products, facilities, equipment and brand required to deliver the value proposition
- To change a company's value creation profile on FV, SV and EV, this involves strategic changes to the components of its business model

Stakeholder impact maps

- Stakeholder impact maps can be used to investigate what a company's most material issues are
- It outlines the company's main stakeholders, their main goals, and the way the company helps them (positive impact) or hurts them (negative impact)

	Stakeholder group 1	Stakeholder group 2	Stakeholder group 3	Stakeholder group 4
Goals				
How the company helps those goals				
How the company hurts those goals				

Stakeholder impact map for a pharmaceutical company

	Patients	Governments	Shareholders	Employees	Doctors & hospitals	Insurers
Short term goals	Survival, affordability & accessibility	Reduce healthcare costs	Maximise financial return	Good work-life balance and pay	Doctors get sweeteners; hospitals minimise costs	Minimise costs
Long term goals	Better health outcomes at decent price	Better health outcomes at decent price	Maximise financial return	Personal development & financial security	Better health outcomes at decent price	Better health outcomes at decent price
Positive impact	Treatment & possibly cured	Population health	High prices & high growth, new drugs drive share price	Remuneration & job fulfilment	Good treatment outcomes	Fewer other costly treatments
Negative impact	High cost	Fees (prices) paid	High R&D costs, high risk	Potential company reputation	High prices	High prices

Frictions

Stakeholder impact map for a social media company

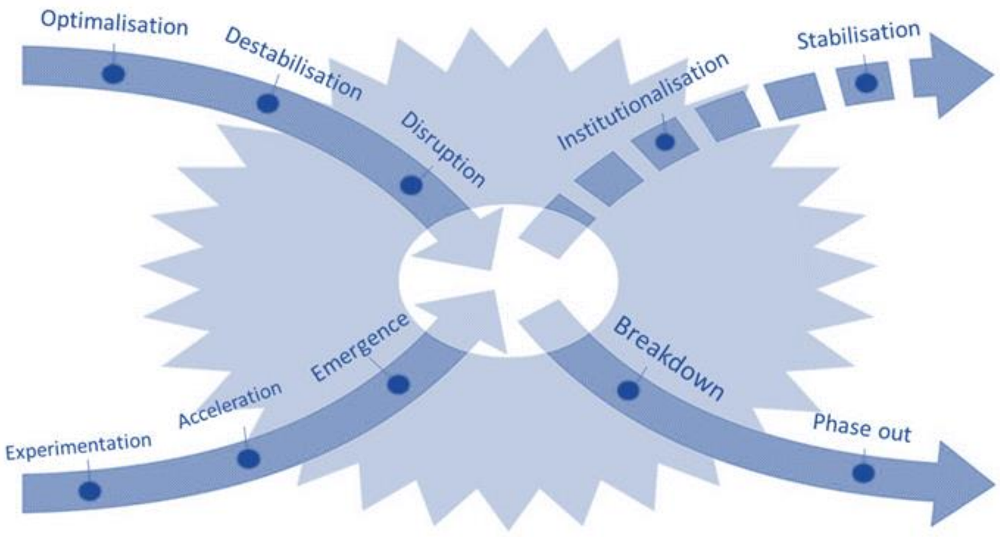
	Users	Advertisers	Shareholders	Employees	Governments
Short term goals	Connect & share	Get more customers	Maximise financial return	Good work-life balance and pay	Control of information, data security; battle distorted news
Long term goals	A good life	Better understanding of customer needs	Maximise financial return	Personal development & financial security	Protect the state and the people
Positive impact	Connect people, widen their opportunity to express themselves	Reach users in a targeted way, save costs elsewhere	High growth drives share price	Remuneration & job fulfilment	Reach people
Negative impact	Privacy, addiction		Unease at value (valuation)	Potential company reputation	Might affect public opinion in a way that undermines government

Frictions

Frictions

Transition

- The move from a negative social and/or negative value to a positive value profile across all three value dimensions is often part of a wider transition in the economy.
- **Transition** is about transformational change rather than incremental change
- The x-curve of transition dynamics



Source: Adapted from Loorbach, Frantzeskaki and Avelino (2017).

Transition

- The SDG agenda sets the stage for the transition to a sustainable and inclusive economy, with several identified transitions:
  - **Climate – Energy transition**: Moving from the use of fossil fuels to renewable energy
  - **Raw Materials – Circular Economy**: Redesign and recycle products leading to less use of raw materials and fewer carbon emissions
  - **Biodiversity – Healthy Food and Regenerative Agri- and Aquaculture**: Trend towards healthy food production with respect for land and water
  - **Labour practices – Social Transition**: Trend towards decent labour practices across the value chain of production

Transition and value

- Transitions can have major implications for company value
- A company that adapts in a timely manner to the new world can realise its integrated value potential
- In contrast, a company that follows a business-as-usual path and fails to adapt can lose its value and go bankrupt

Transition and value

- The formula to estimate expected transition losses ETL_{ij} for company *i* in sector *j* is:

$$ETL_{ij} = EAT_{ij} \cdot PT_j \cdot LGT_i$$
$$= b_j \cdot V_i \cdot PT_j \cdot (1 - a_i)$$

  - EAT_{ij} = exposure to transition = $b_j \cdot V_i$, where

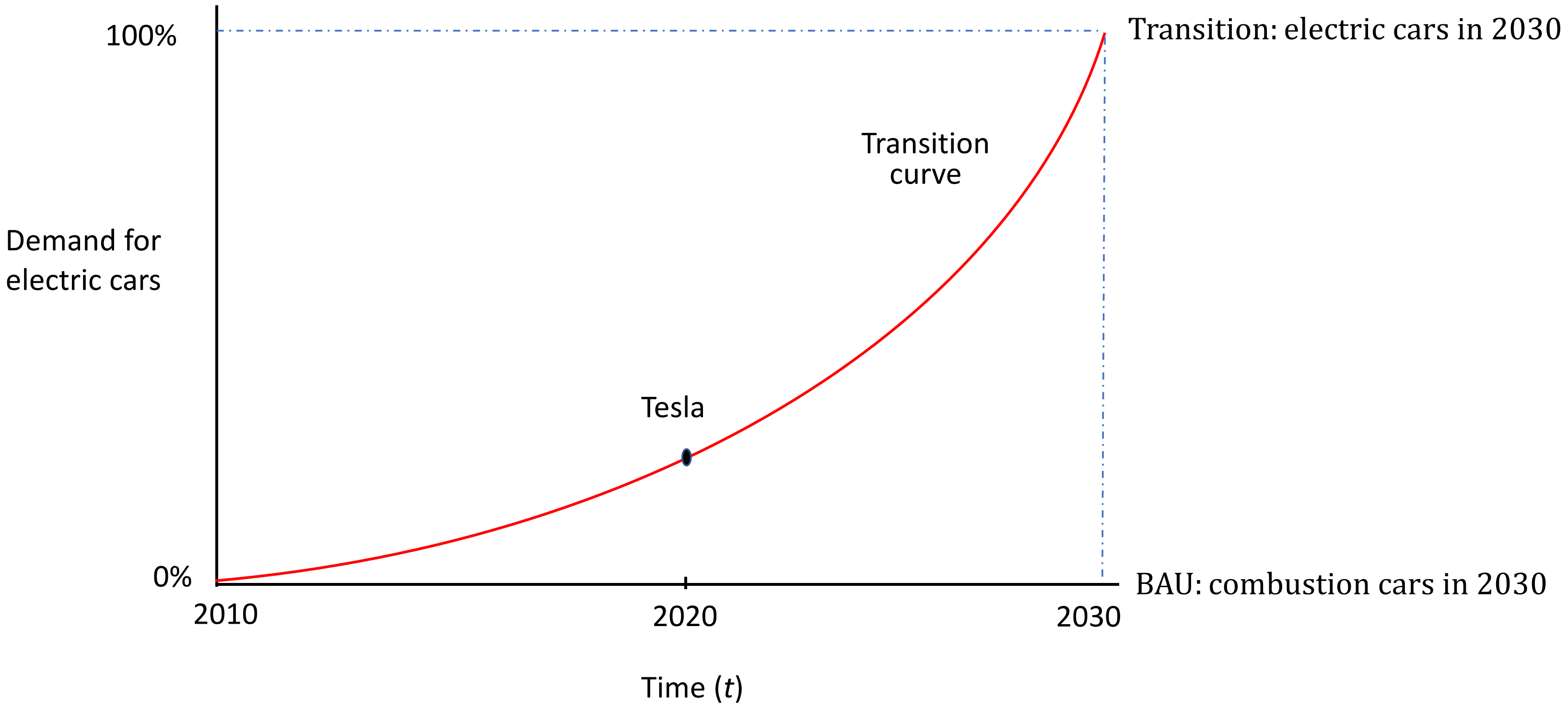
    b_j = level of transition in sector *j*, and

    V_i = value of company *i*
  - PT_j = probability of transition in sector *j*
  - LGT_i = loss given transition = $(1 - a_i)$, where

    a_i = company *i*'s adaptability to transition

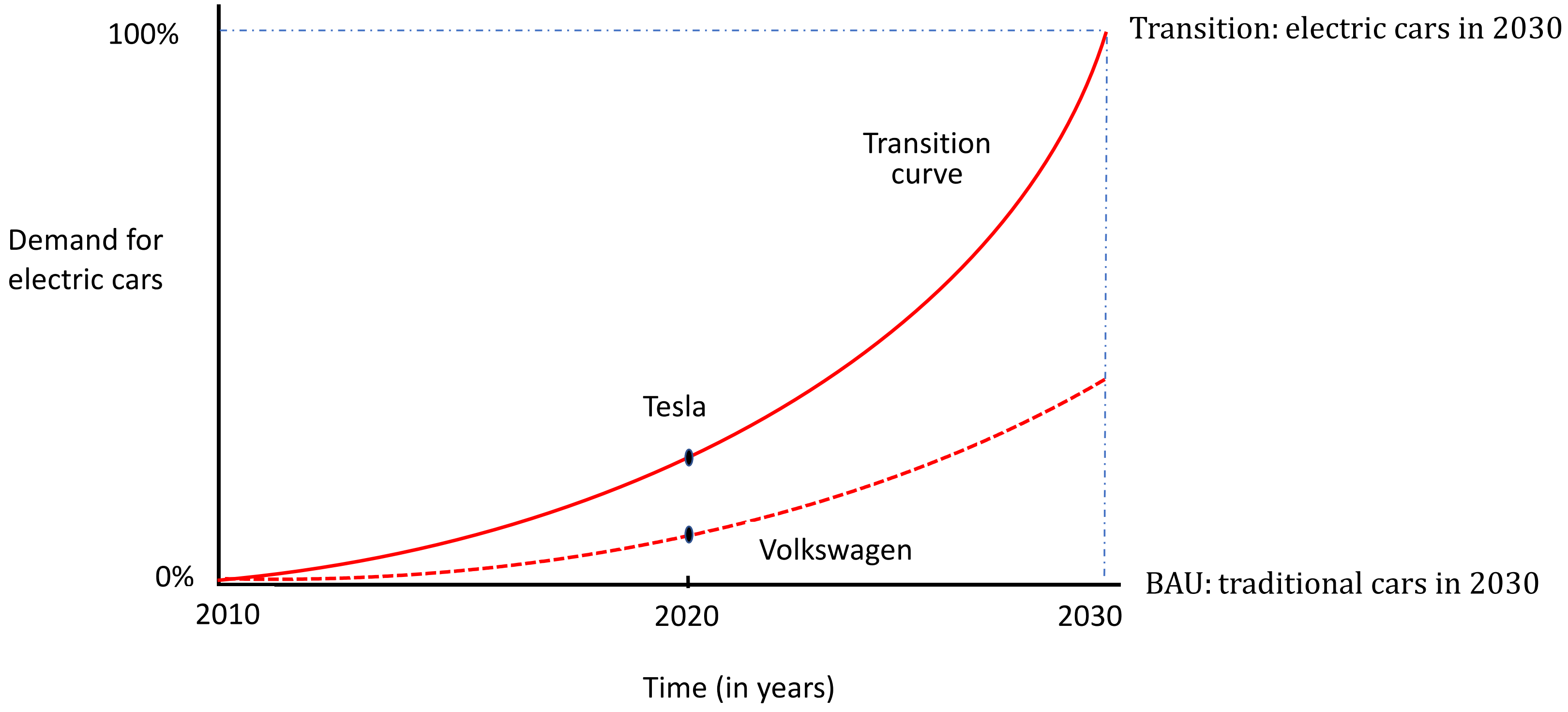
Example of car market

- A car market where $b_{car} = 1$



Can Volkswagen catch up?

- And where $a_{VW} = 0.4$



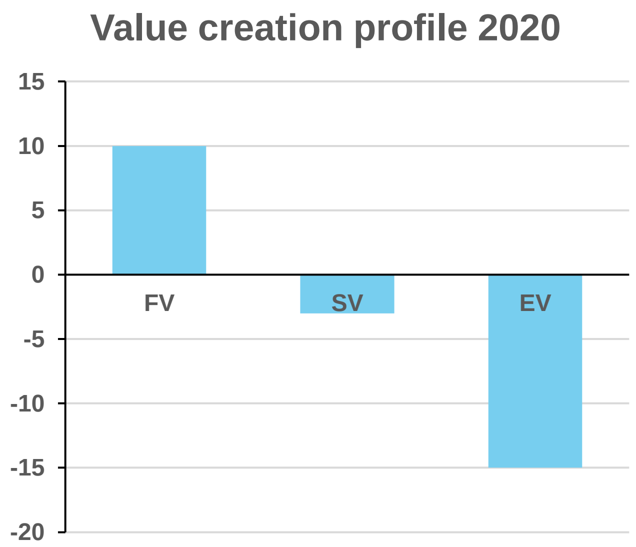
Potential VW losses?

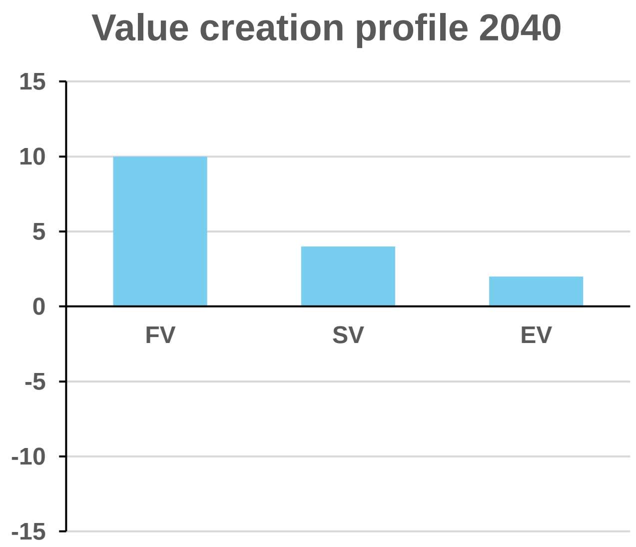
- $ETL_{i,j} = b_j \cdot V_i \cdot PT_j \cdot (1 - a_i)$
- $ETL_{i,j} = 1 \cdot V_{VW} \cdot 1 \cdot (1 - 0.4) = 0.6 \cdot V_{VW}$ → 60% of VW’s value

- Conclusion:
  - a_i - **adaptability** or **transition preparedness** is a key factor for company valuation
  - Need fundamental analysis to assess parameters b_j and a_i

Transition pathways

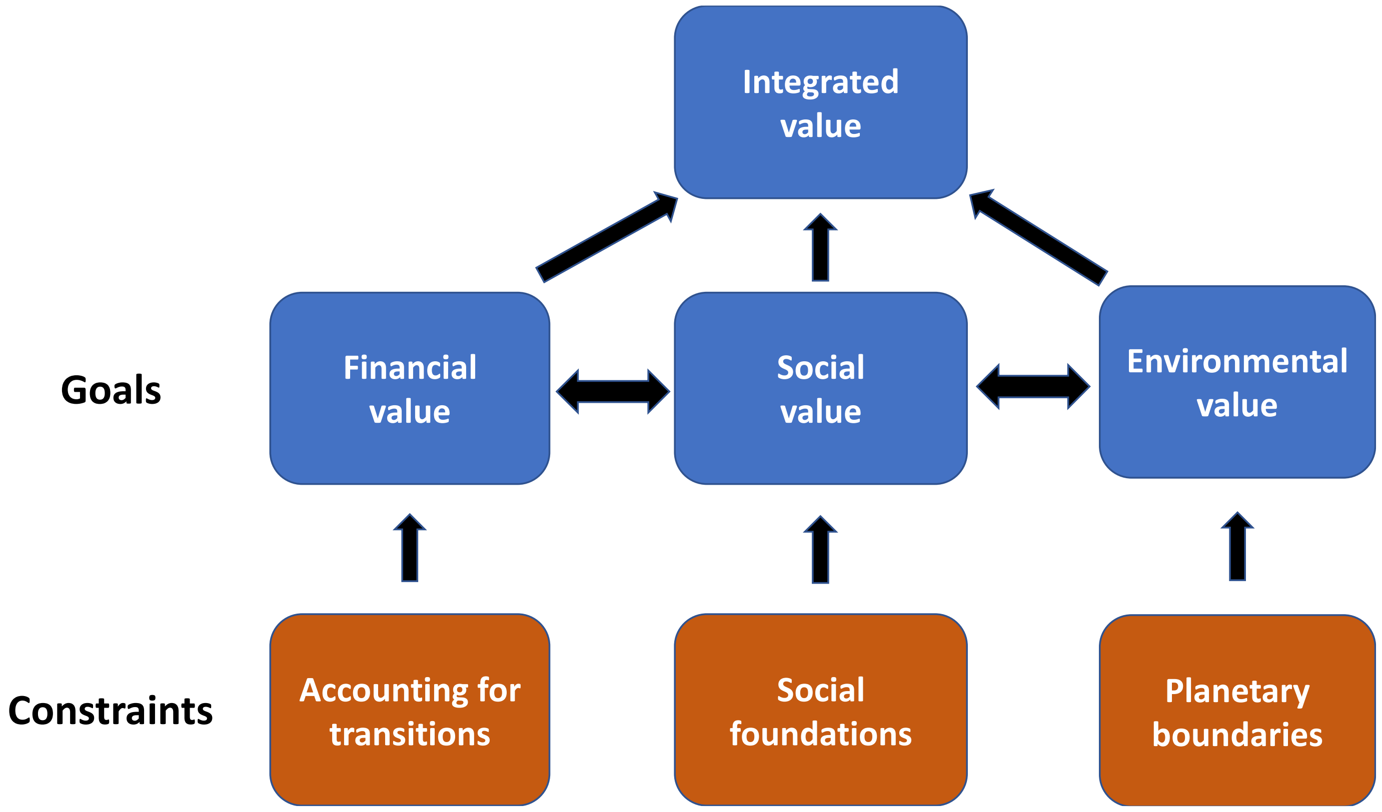
- When a company is value destructive on any type of value (FV, SV, or EV) it needs to find a credible transition pathway in line with social and planetary boundaries towards positive value





Steering your company on integrated value

- **Goals**: Companies should steer according to FV, SV and EV in an integrated way. This is the process of optimising the company's integrated value.
- **Constraints**: Companies need to survive the transitions in the market and also need to operate within social and planetary boundaries
- With a **future-proof business model**, companies can attract funding and avoid bankruptcy



Conclusions

- Creating value on FV, SV and EV requires a clear view of all types of value creation

- Internalisation shifts the burdens of externalities back from society to the companies
  - If companies' FV depends on the exploitation of an external impact, that FV will be affected when internalisation occurs

- Stakeholders can use the Value Creation Matrix to identify value creation on SV and EV
  - Based on companies' purpose and area(s) of value destruction, companies can adjust their strategy and business model
  - In the case of serious value destruction, companies should be able to outline a credible transition pathway