CDP SOUTH AFRICA 2016 HIGH LEVEL FINDINGS AND KEY MESSAGES

NBI National Business Initiative | CDP DRIVING SUSTAINABLE ECONOMIES

The ratification of the Paris Agreement is an extremely strong global economic decarbonisation signal

THE PARIS AGREEMENT SETS LONG-TERM CLIMATE TARGETS FOR THE GLOBAL ECONOMY

THE PARIS AGREEMENT

TEMPERATURE GOAL
To hold global warming below 2°C above pre-industrial levels while pursuing an ambitious 1.5°C*

FINANCIAL GOAL
To direct global finance flows (including private finance) towards low greenhouse gas and climate resilient investment*

RESILIENCE GOAL
To increase the resilience of communities and businesses to the impacts of climate change, understanding that emission reductions will lower the cost of future climate impacts*

AMBITION LEVEL:
Ratcheting mechanisms in the agreement guarantee progressive ambition

INTERNATIONALLY, BUSINESS IS RESPONDING

As of September 2016, 1056 commitments have been made by international businesses through

WE MEAN BUSINESS

- 184 companies committed to setting Science Based Targets
- 76 companies committed to putting a price on carbon
- 81 companies committed to 100% Renewable Energy
- 126 committed to engaging with policy makers on climate issues
- 188 report climate change information in mainstream reports

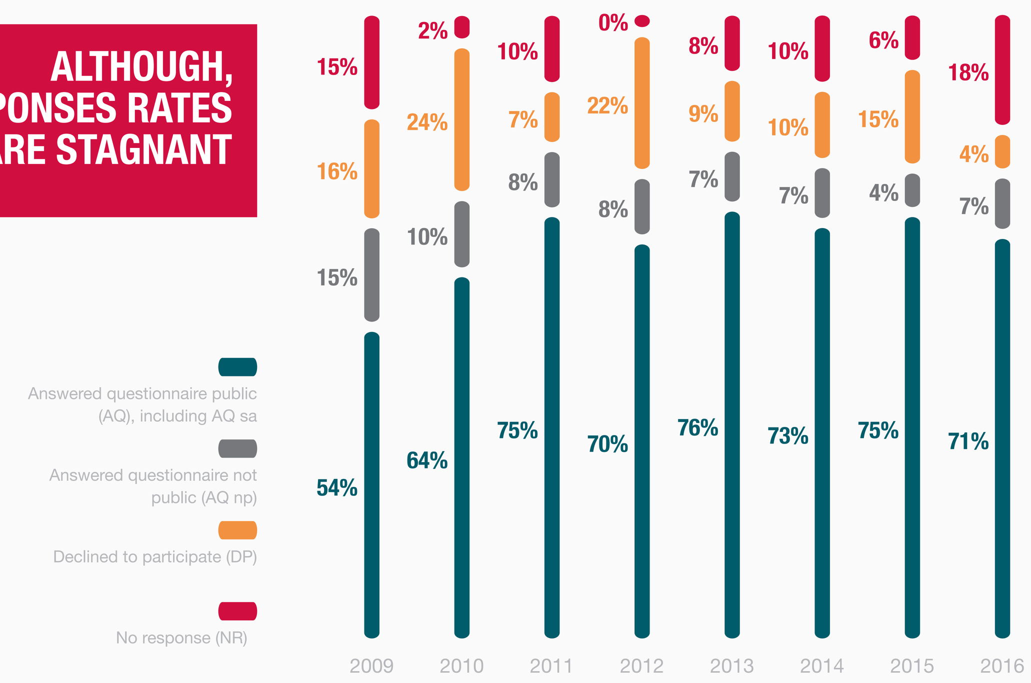
76% of all risks disclosed to CDP in 2016 are perceived to be medium-high impact and high likelihood. It is clear that South African companies need to act.

SOUTH AFRICAN COMPANIES HAVE A STRONG HISTORY OF DISCLOSURE

Response rates (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
South Africa	58	69	74	83	78	83	80	79	78
Australia	48	52	47	50	50	50	44	47	43
Brazil	83	76	72	67	65	56	57	62	56
China	5	10	11	11	23	19	45	9	10
India	19	18	21	28	26	27	30	26	24
United States S&P 500	64	66	70	68	69	68	69	67	67

MEDIAN DISCLOSURE SCORE*** 2016: 95% (2015: 96%)

ALTHOUGH, RESPONSES RATES ARE STAGNANT



JSE 100 PERFORMANCE SCORES HAVE MARKEDLY IMPROVED**

South African companies are improving performance, and, in particular, strongly integrating climate change into governance

96% EMBED CLIMATE CHANGE INTO BUSINESS STRATEGY (2015: 95%)

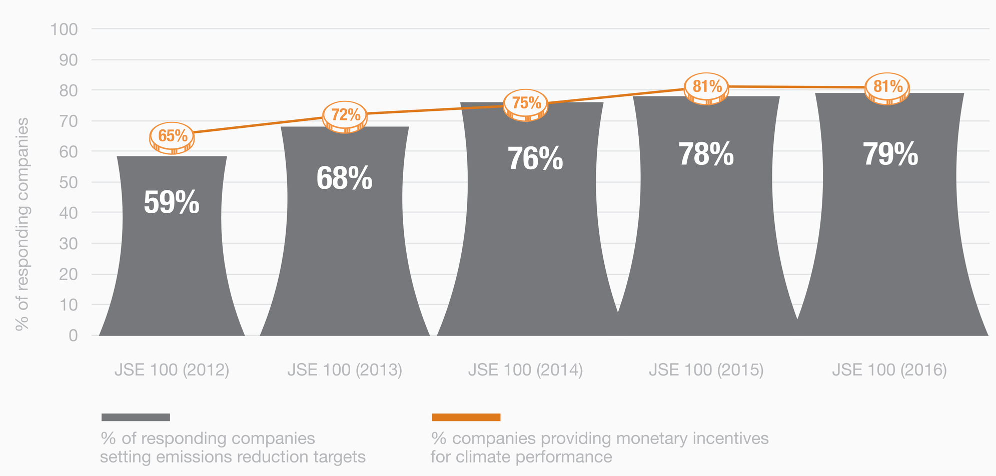
96% OF ALL RESPONDING COMPANIES INTEGRATE CLIMATE CHANGE INTO BROADER RISK MANAGEMENT (2015: 95%)

99% OF SA COMPANIES HAVE BOARD-LEVEL OVERSIGHT FOR CLIMATE CHANGE (SAME AS 2015)

81% OF COMPANIES HAVE MONETARY INCENTIVES FOR CLIMATE PERFORMANCE (SAME AS 2015)

	2010	2011	2012	2013	2014	2015	2016
A/A-	6% 6	9% 7	8% 6	14% 11	16% 12	14% 10	37% 27
B	42% 27	24% 18	32% 24	38% 29	42% 32	34% 25	41% 30
C	31% 20	32% 24	21% 16	22% 17	25% 19	33% 24	21% 15
D	22% 14	24% 18	32% 24	23% 18	14% 10	14% 10	1% 1
E		11% 8	7% 5	3% 2	3% 2	5% 4	0% 0

Governance and especially monetary incentives motivate companies to set targets and therefore take action



THERE IS A RISK THAT LEADING COMPANIES PULL AHEAD OF THE PACK. PROGRESS IS NEEDED ON ALL FRONTS

A-List companies | % Of remaining sample

100% of A-list companies incentivise senior leadership to achieve climate targets — 100% | 57%

100% of A-list companies engage with their value chain — 100% | 24%

100% of A-list have implemented or commenced implementation of emission reduction activities — 100% | 65%

100% of A-list companies report carbon emissions in mainstream reports — 100% | 86%

100% of A-list companies verify scope 1 & 2 emissions — 100% | 48%

78% of all emission reductions were achieved by 11 A-list companies — 78%

UNIVERSAL PERFORMANCE
Despite the strong performance indicators and the South African company presence on the A-List, the whole of South African business needs to find ways to continually innovate and increase the scope and impact of their emission reduction activities.

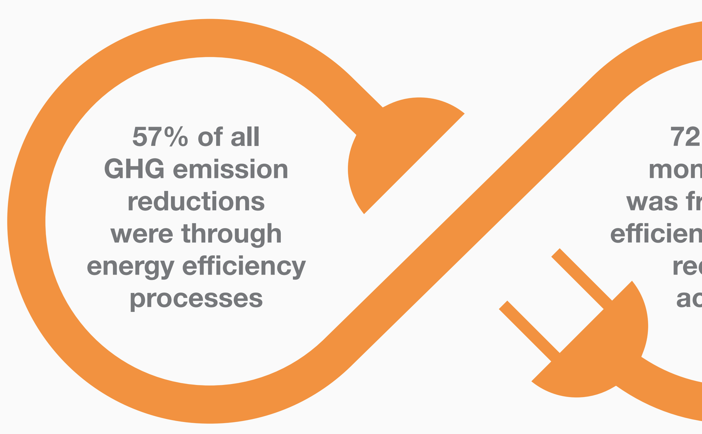
WHAT TRENDS DO WE SEE IN BUSINESS ACTION THAT WILL SUPPORT CONTINUAL IMPROVEMENT?

companies that are using or plan on using an internal price of carbon: 2015 41% | 2016 45%

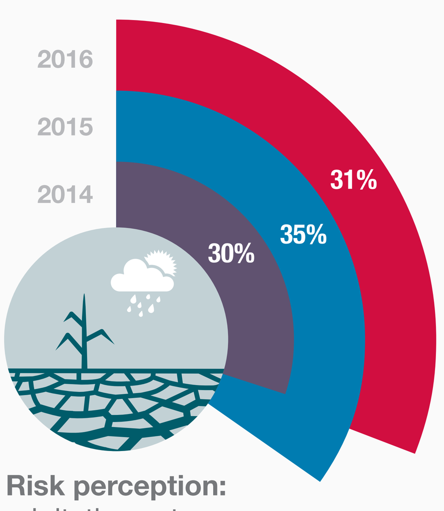
25 SA COMPANIES have set or intend setting Science Based Targets within the next two years

IN 2016, companies setting absolute targets dropped to **41%** from **45%** in 2015

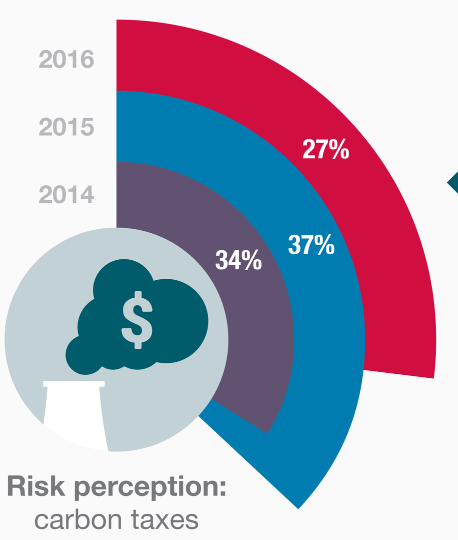
In the South African context, companies continue to focus on energy efficiency



The percentage of companies reporting specific risk with a high likelihood to occur and high magnitude of impact



Risk perception: precipitation extremes and droughts

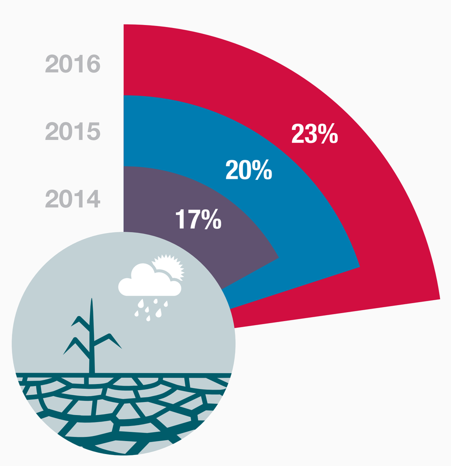


Risk perception: carbon taxes

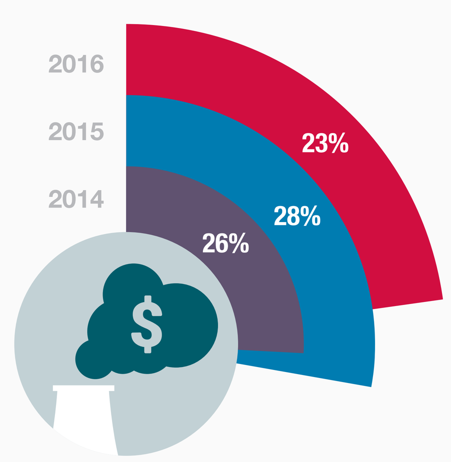
The predominate regulatory risk is the carbon tax, and the predominant physical risk is precipitation extremes and droughts. It is significant that a physical risk is the risk companies worry about most.

For the first time in 3 years companies are reporting an equal amount of high magnitude risks for both physical and regulatory risk. This upward trend in physical risk impact suggests a further focus on adaptation is required.

The percentage of companies reporting risks



Risk perception: Physical



Risk perception: Regulatory

The Paris Agreement was significant in its requirement for an equal focus on adaptation and mitigation, and this is reflected in South African risk perception data. Therefore action needs to equally focus on adaptation.

*Wei, D.; Cameron, E.; Harris, S.; Prattico, E.; Scheerder, G.; and Zhou, J. (2016) The Paris Agreement: What it Means for Business; We Mean Business; New York.

More detail can be found in the executive summary. **www.nbi.org.za

***It is important to note that CDP's scoring methodology has changed since 2015 and comparisons should be treated with caution. **https://vimeo.com/162087170**

CDP SOUTH AFRICA 2016 TARGETS AND PROGRESS

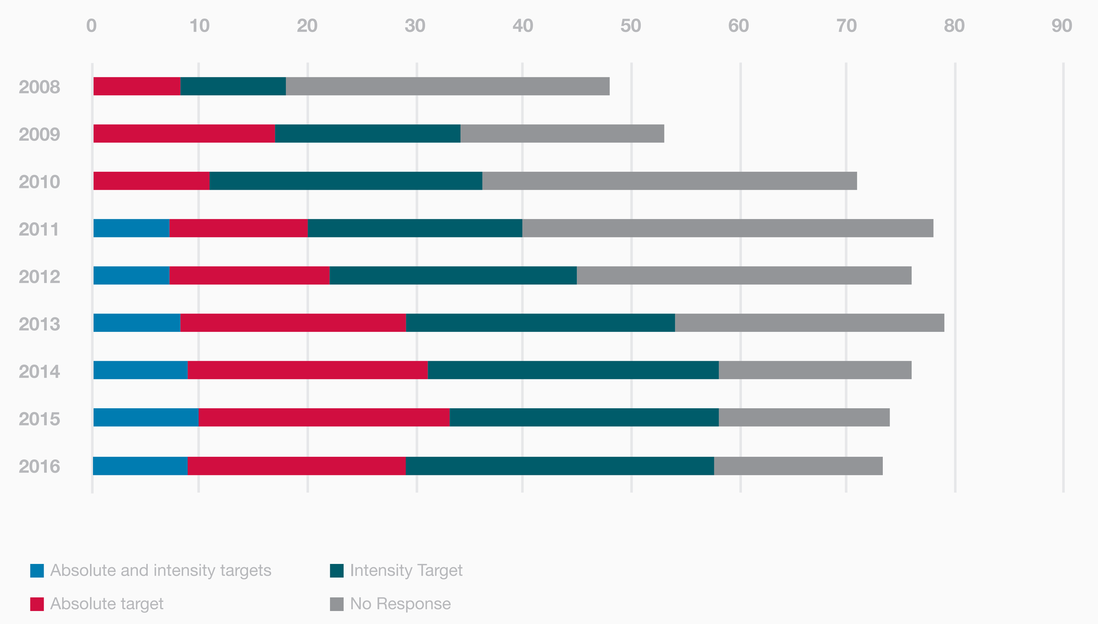
National Business Initiative

CDP DRIVING SUSTAINABLE ECONOMIES

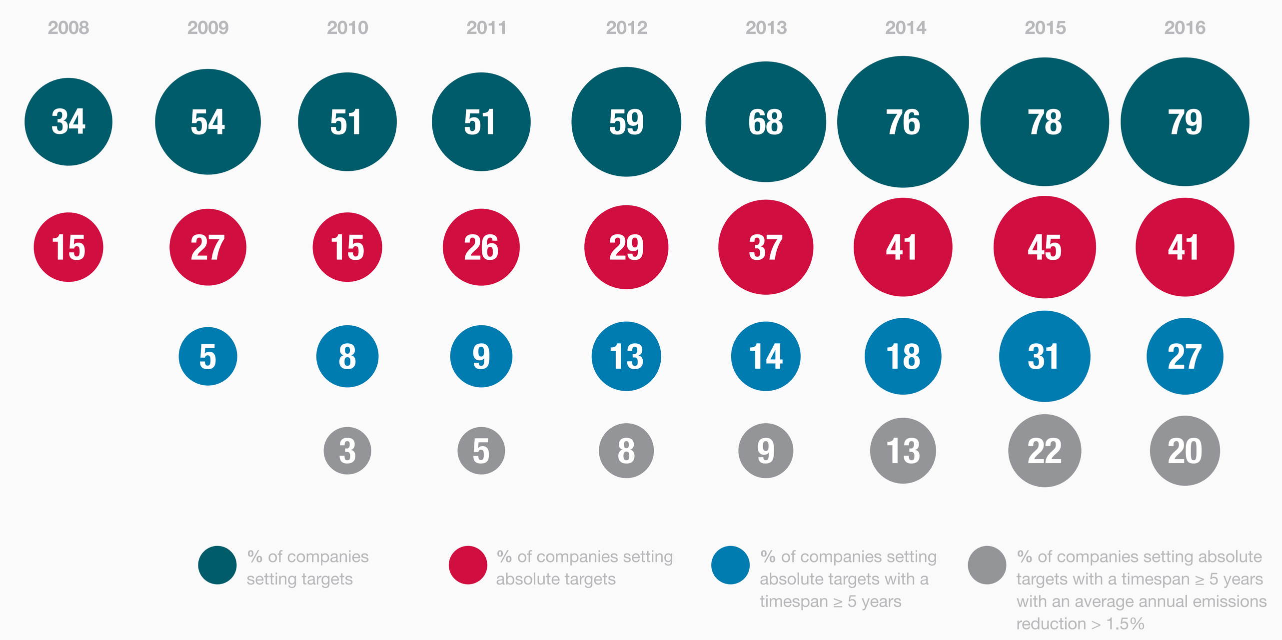
To meet the shared global goal of keeping temperatures below 2⁰C, SA needs to strengthen efforts to reduce emissions. There are real challenges in implementing more impactful emission reduction activities and in needing to align targets with science and with longer-term timelines

SETTING TARGETS IS A KEY STEP IN TAKING ACTION

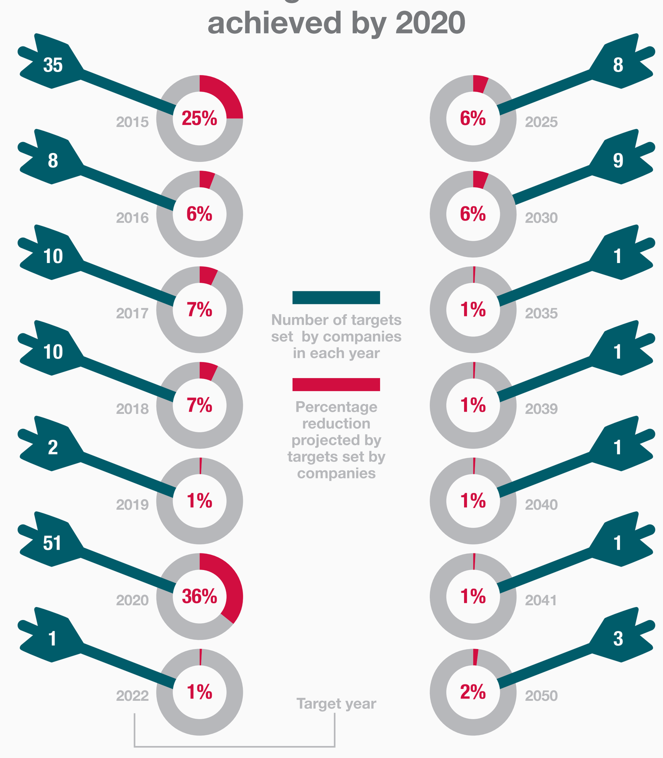
The number of companies with active targets in place



More companies need to set longer-term, more ambitious targets



82% of targets are set to be achieved by 2020



RISKS AND OPPORTUNITIES AND THEIR FINANCIAL IMPACTS

Companies are still focused on quantifying the impact of risks and less so of opportunities

RISKS AND THEIR FINANCIAL IMPACTS

HIGH RANKING RISKS 2016

1. Change in precipitation extremes and droughts
2. Carbon tax
3. Reputation
4. Change in precipitation pattern
5. Change in mean (average) temperature

56% of companies quantified the potential financial impacts of climate change risks

Carbon tax = **R300 million (n=35)** over a period ranging from 1 to over 6 years, making up **0.028%** of 2016 tax revenues

Reputation = **R6.9 billion (n=19),** calculated as a devaluation of the market capital over a period ranging from 1 to over 6 years

Changes in precipitation extremes and droughts = **R2 billion (n=18)** calculated as production interruptions and/or increased insurance costs over a period ranging from 1 to over 6 years.

OPPORTUNITIES AND THEIR FINANCIAL IMPACTS

COMMONLY DISCLOSED OPPORTUNITIES:

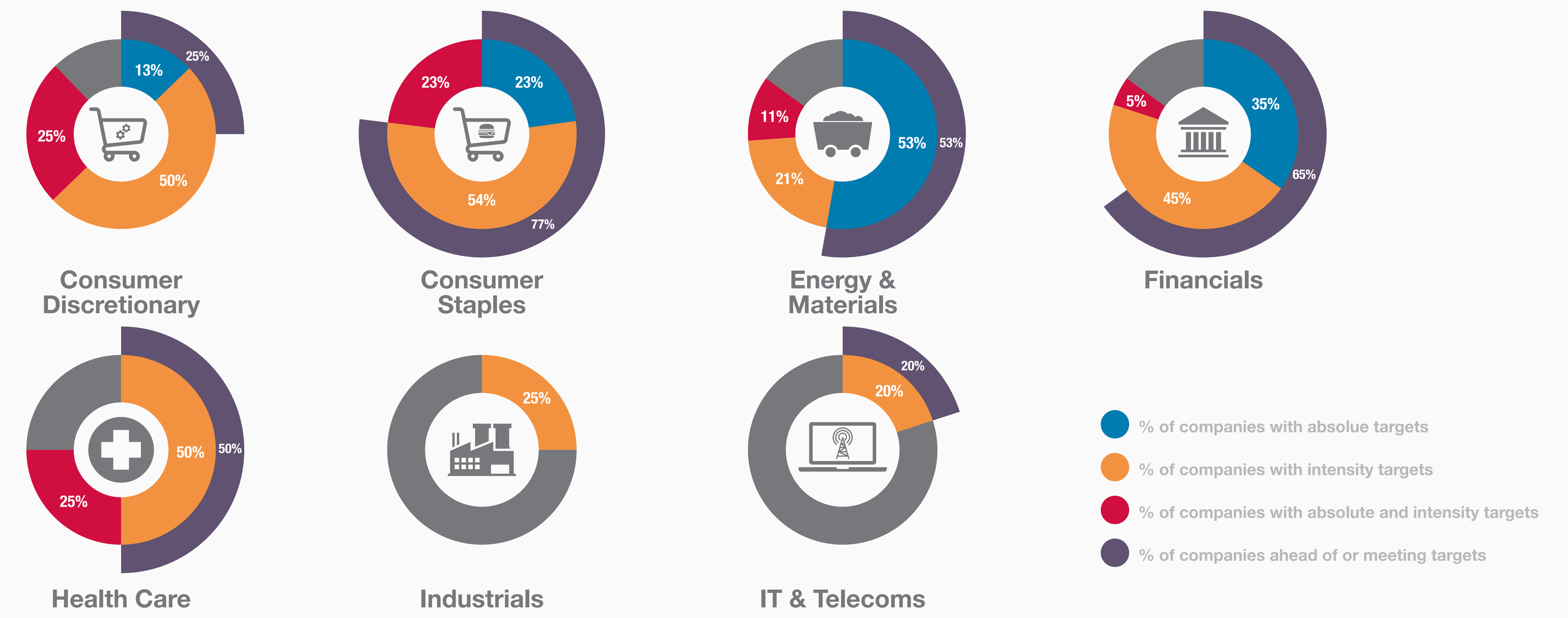
1. Reputation
2. Changing consumer behaviour
3. Other driver
4. Fuel/Energy taxes & regulation
5. Change in precipitation extremes and drought

39% of companies quantified the potential financial impacts of climate change opportunities

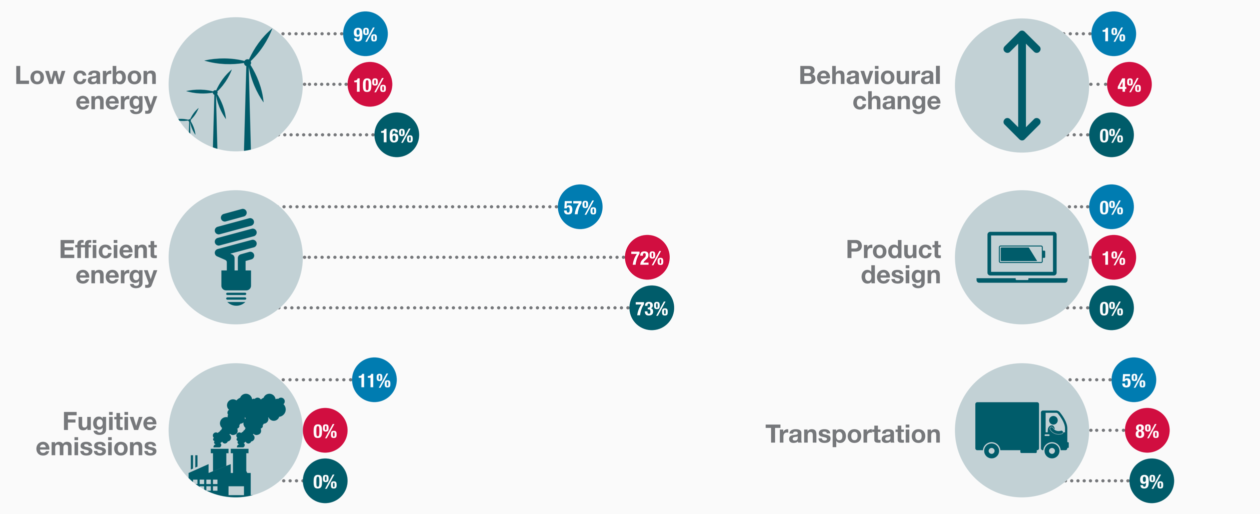
Changing consumer behaviour = **R763 million (n=11)** over a period ranging from 1 to over 6 years

Reputation = **R1.6 billion (n=14)** calculated as a devaluation of the market capital over a period ranging from 1 to over 6 years

SETTING TARGETS UNLOCKS THE OPPORTUNITY OF COST SAVINGS THROUGH EMISSION REDUCTIONS



In 2016, investments made into energy efficiency continue to provide the highest GHG and monetary savings



The South African sample is dominated by a few large companies where a single investment in a single year can potentially make a material difference in investment, therefore trends should be viewed with caution.

THERE IS ALSO OPPORTUNITY IN WORKING WITH VALUE CHAIN PARTNERS

TOP 3 HIGH IMPACT INDIRECT RISKS

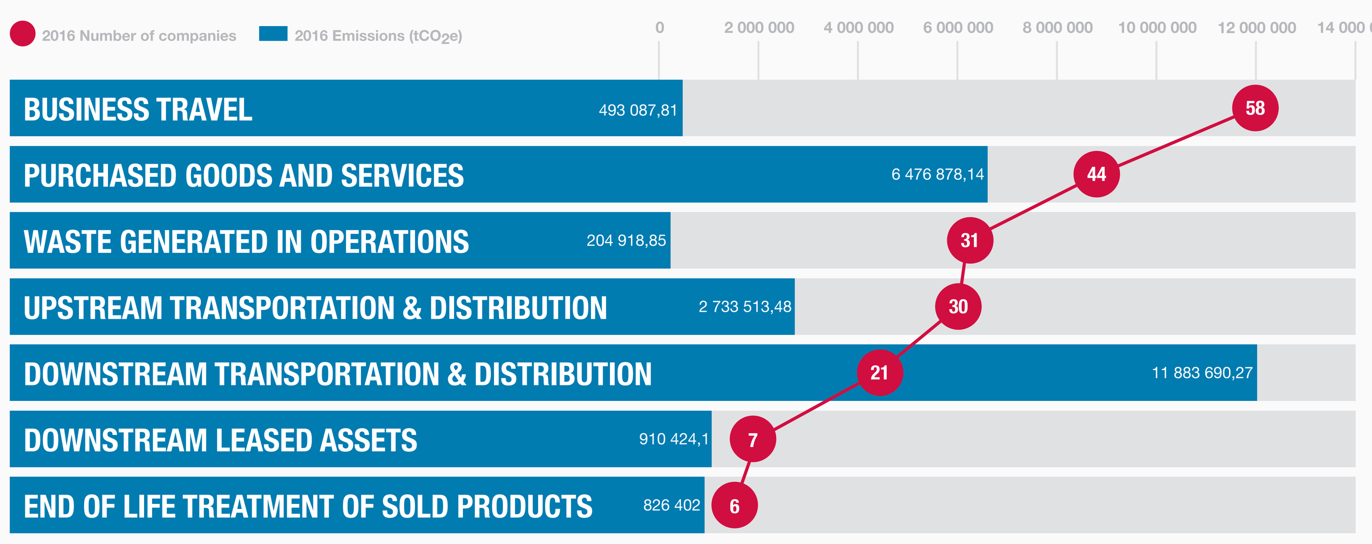
- Reduction/disruption in production capacity
- Increased operational costs
- Reduced demand for goods/services

TOP 3 HIGH IMPACT INDIRECT OPPORTUNITIES

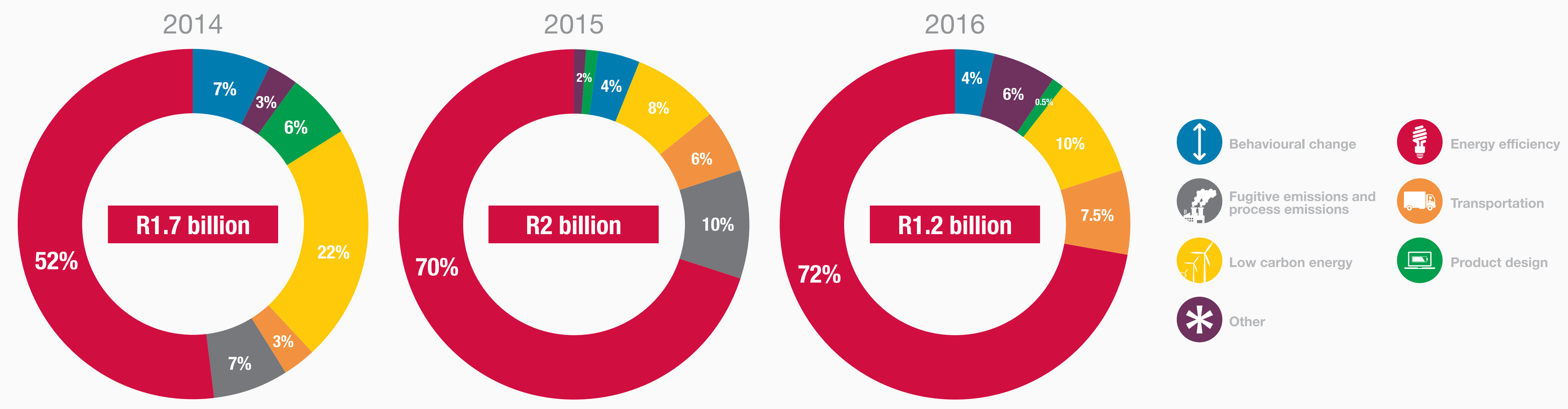
- Reduced operational costs
- Increased demand for existing goods/services
- New products/business services

41% OF COMPANIES VERIFY THEIR SCOPE 3 EMISSIONS

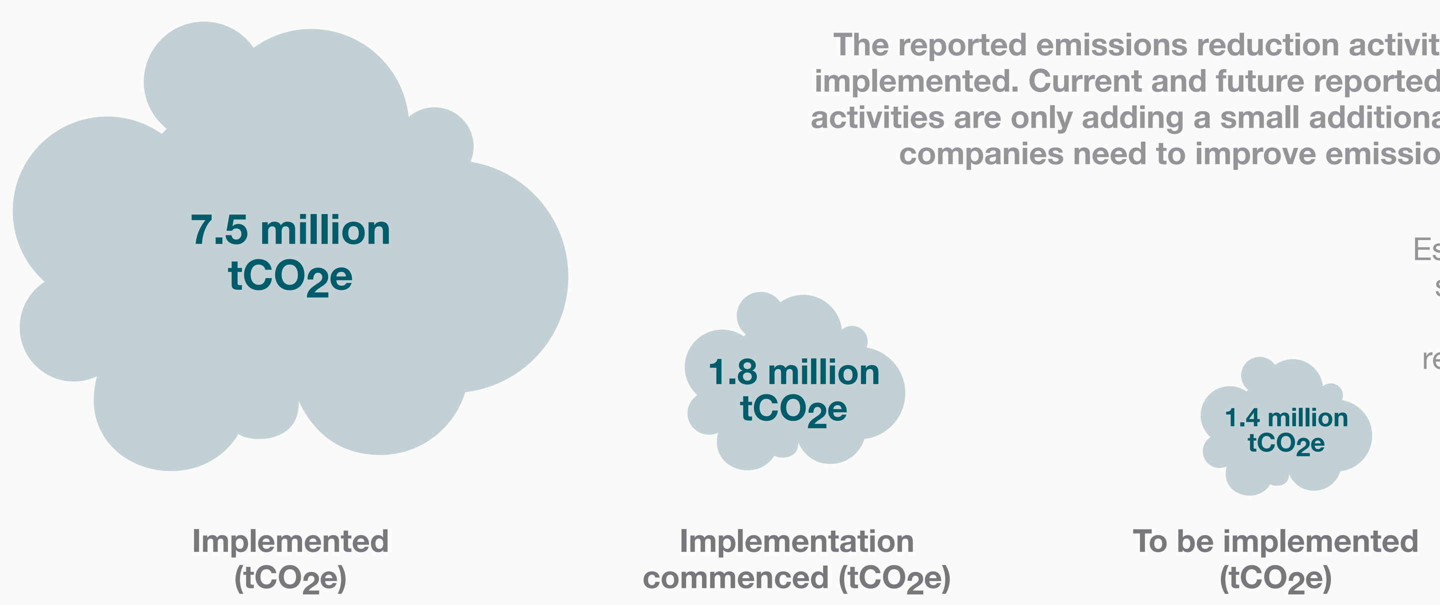
Companies are not reporting the scope 3 categories where the cost and GHG reduction opportunities lie.



There has been a decline in annual financial savings as a result of emissions reductions activities



The reported emissions reduction activities have mostly been implemented. Current and future reported emissions reduction activities are only adding a small additional reduction. As such, companies need to improve emission reduction activities



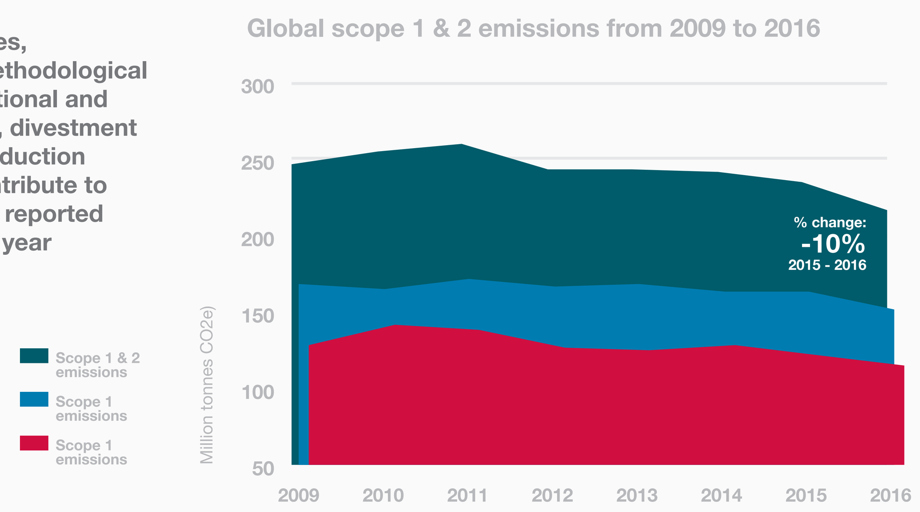
Estimated tonnes CO_2e savings from emission reduction activities reported by companies

THE REPORTED SCOPE 1 AND 2 EMISISONS AND % CHANGE OVER THE YEARS

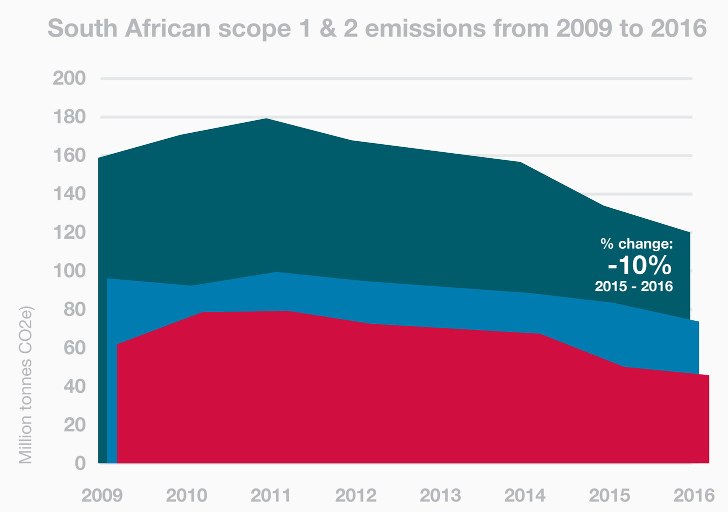
A like for like comparison of 45 companies reporting their GHG emissions since 2009 reveals gross scope 1 (direct emissions) and scope 2 (indirect emissions from electricity purchases) have dropped 14% from 221.8 million tCO2e in 2009 to 191.4 million tCO2e in 2016

Sample variances, acquisitions, methodological changes, operational and output changes, divestment and emission reduction activities all contribute to variances in the reported emissions each year

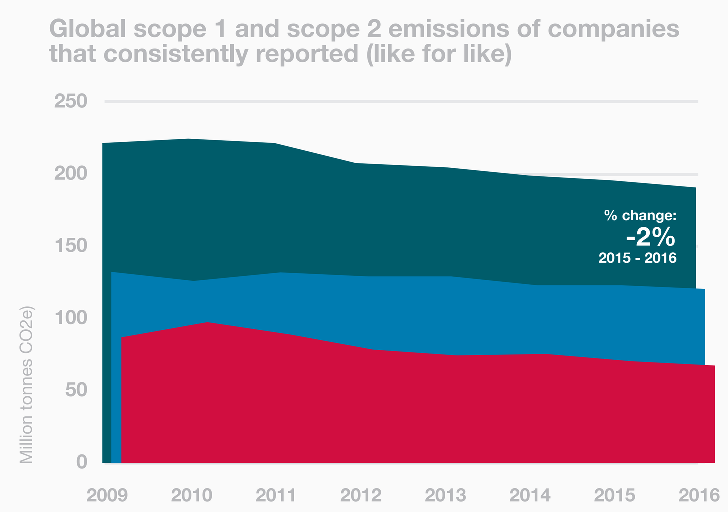
Global scope 1 & 2 emissions from 2009 to 2016



South African scope 1 & 2 emissions from 2009 to 2016



Global scope 1 and scope 2 emissions of companies that consistently reported (like for like)



However, the comparison of like-for-like reporting companies (n=63) between 2015 and 2016 show South African scope 1 and 2 emissions increasing by 3%

CDP SOUTH AFRICA 2016 WE MEAN BUSINESS AND SOUTH AFRICAN ACTIVITY

The Paris Agreement ratification is an extremely strong global decarbonisation signal and international businesses are taking action through a mega-coalition called We Mean Business.

The Paris Agreement is ratified and will come into force on the 4th November 2016, the fastest multilateral agreement to ever enter into force

Network partners

In the context of a requirement for continued, increasingly effective performance from global businesses

WE MEAN BUSINESS

advocate for action through a set of evolving solution clusters

- **Net Zero Goals** – Science Based Targets
- **Land Systems** – Deforestation, Food and Agriculture
- **Energy Systems** – Renewable Energy, Energy Efficiency and Energy Productivity
- **Industrial Solutions** – Industrial Sectors (chemicals, cement), Non-CO2 Gases (short-lived climate pollutants)
- **Built Environment and Transport Systems** – Buildings Energy Efficiency, Electric Vehicles, Low Carbon Fuels, Aviation, Road Freight and Shipping
- **Resilience** – Water, Resilience and Adaptation
- **Finance Systems** – Investor Platform for Climate Actions
- **Enablers** – Carbon Pricing, Responsible Policy Engagement and Fiduciary Duty

The implementation of the Paris Agreement and economic transition will happen at a national level and each country will implement differently considering their context and historical contribution to climate change. In South Africa the NBI is (in the short term) therefore focussing on: **Science Based Targets, Energy Systems, Resilience and Enablers.** CDP is a clear contribution to finance systems.

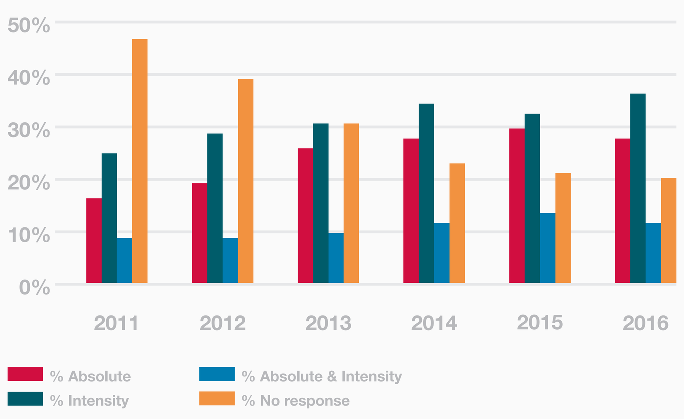
SCIENCE BASED TARGETS

25 companies have set or intend on setting a target aligned with science in the next two years, what are some of the challenges to pervasive Science Based Targets

The science based targets coalition have several eligibility criteria, 3 of which are:

1. Targets must cover a minimum of 5 years and a maximum of 15 year

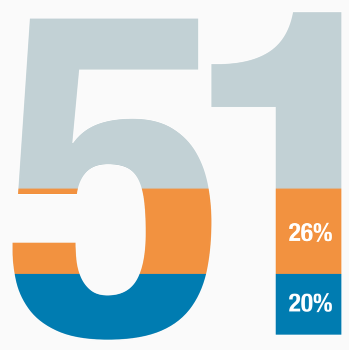
While companies are beginning to set science based targets, currently targets are short-lived



82% OF ALL TARGETS EXPIRE IN 2020

2. Targets must cover company wide scope 1 and 2 emissions

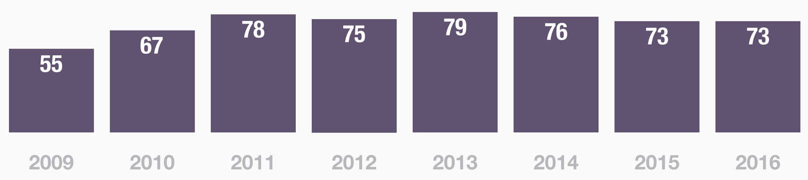
51 % of companies have omitted to disclose emissions from their scope 1 & 2 reporting boundary



26% of companies not disclosing all of their scope 1 emissions believe their excluded emissions to be material

20% of companies not disclosing all of their scope 2 emissions believe their excluded emissions to be material

Number of responding companies providing data for scope 1 or scope 2 emissions, by year



3. Targets must cover an ambitious scope 3 reduction

20% of companies reported emission reduction activities that resulted in decreases in their scope 3 emissions

In most sectors there is at least one company that is reporting scope 3 emissions making up 40% or more of their total emissions

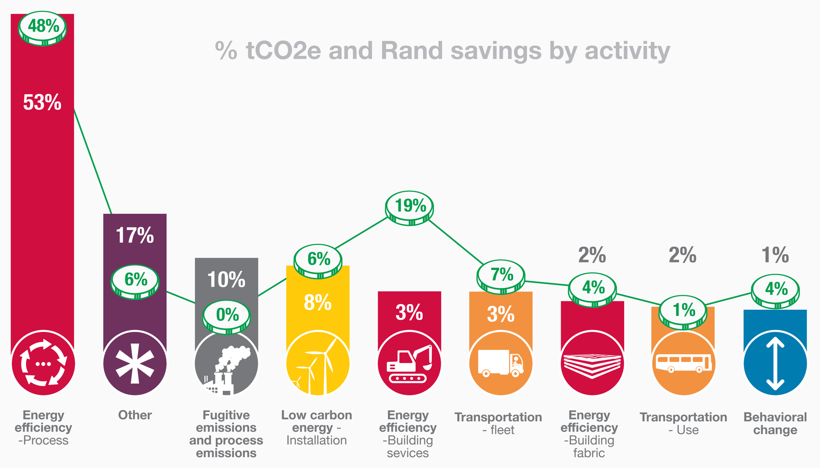
Number of companies with Scope 3 emissions greater than 40% of all emissions

Few companies are meeting the eligibility criteria for science based targets assessment

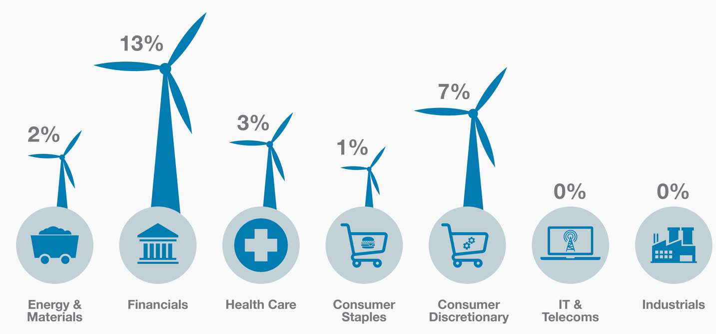
ENERGY SYSTEMS

In South Africa, a significant portion of our emissions come from coal fired power stations and therefore energy system transition needs to be a big business focus

Energy efficiency projects are vital to emissions reductions and projects undertaken provide the biggest cumulative monetary savings



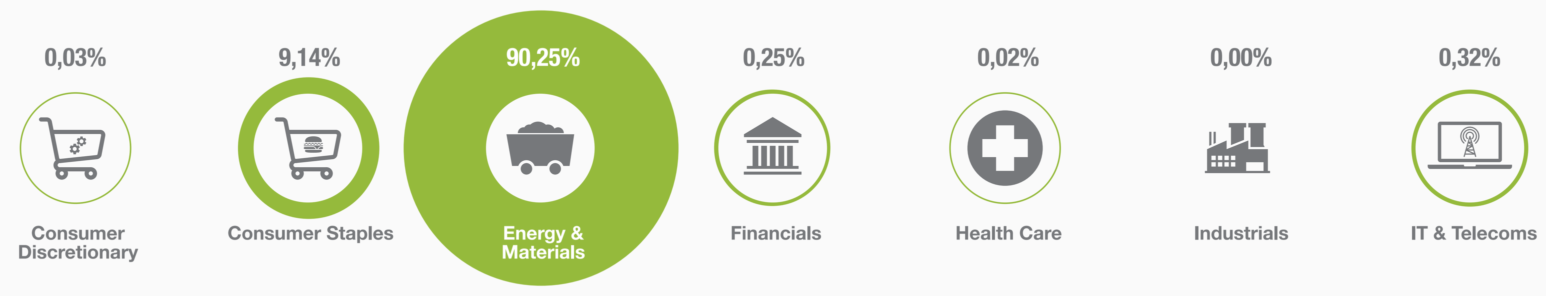
The renewable energy annual increment required for sectors to achieve their renewable energy targets that individual companies within that sector that have set*



Companies have reported a global production of renewable energy that is 2% of Eskom's distributed electricity**

Woolworths is the only SA company to report a target of 100% renewable energy

Sector contribution to total renewable energy usage (%)



The renewable energy sources include; PV: 0.5% Combination PV & Biomass: 17% Biomass: 42% Undisclosed: 40.5%

RESILIENCE

The Paris Agreement balances the emphasis on mitigation and adaptation

The likelihood and severity of physical risks (an indicator of adaptation risk) have steadily been increasing: 3 of the top 5 risks are physical risks

All risks

Likelihood \ Magnitude	Low	Medium	High
High	13%	28%	21%
Medium	5%	17%	10%
Low	2%	2%	2%

Regulatory risks

Likelihood \ Magnitude	Low	Medium	High
High	26%	34%	24%
Medium	5%	8%	3%
Low	0%	0%	0%

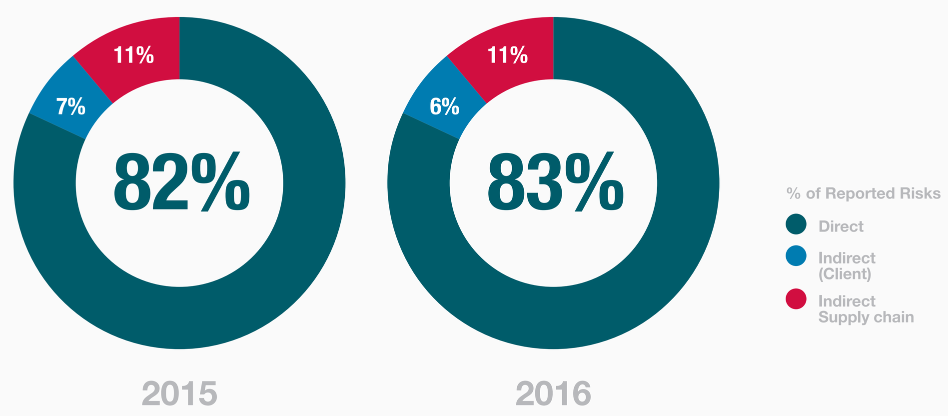
Physical risks

Likelihood \ Magnitude	Low	Medium	High
High	5%	27%	24%
Medium	5%	20%	14%
Low	0%	3%	2%

Despite the identified magnitude of physical risk being higher there are challenges with how companies assess specific risk:

- Only 32% of all risks are reported with a time frame exceeding three years.
- Only 17% of reported risks refer to indirect risks that may occur in the value and supply chain
- Only 21% of all risks disclosed by responding companies relate to precipitation and water related issues
- Only 34% of the entire sample engages with their value chain on climate change risks

Companies focus mostly on direct risks and may be exposed to unknown risks in their value chain that they are not investigating

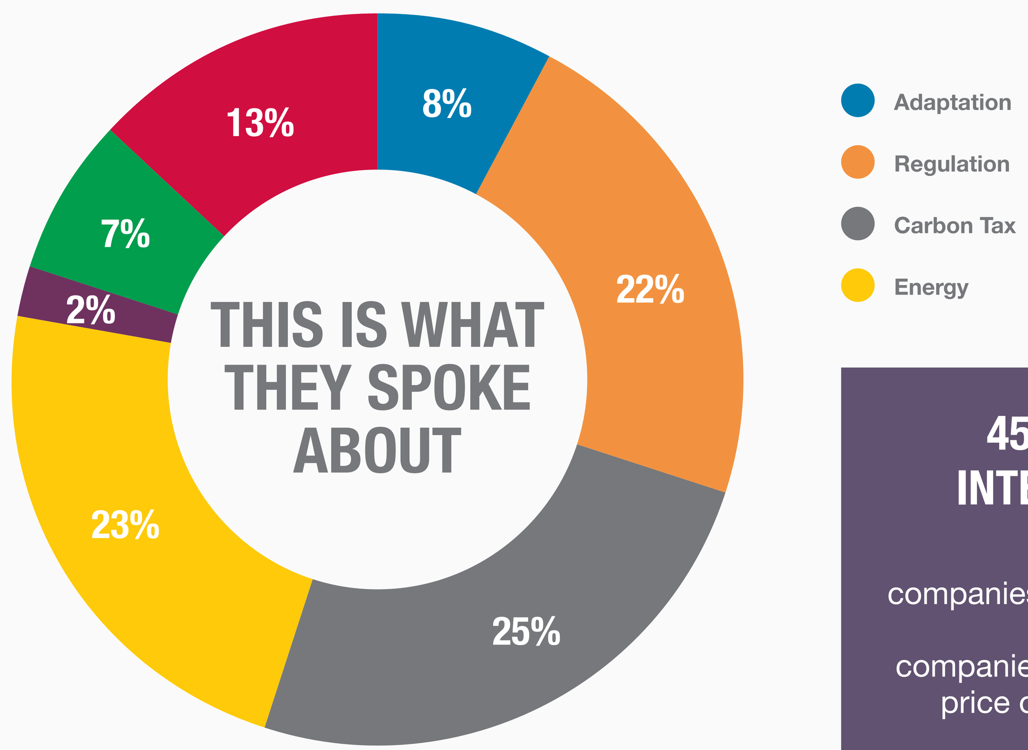


ENABLERS SUPPORT PERFORMANCE

Given the challenge of maintaining high levels of performance, South African companies need to work with government and other market participants on an optimal enabling environment

92% of responders engage with government on climate change issues, (2015:93%)

of which **63%** engage directly (2015:65%)

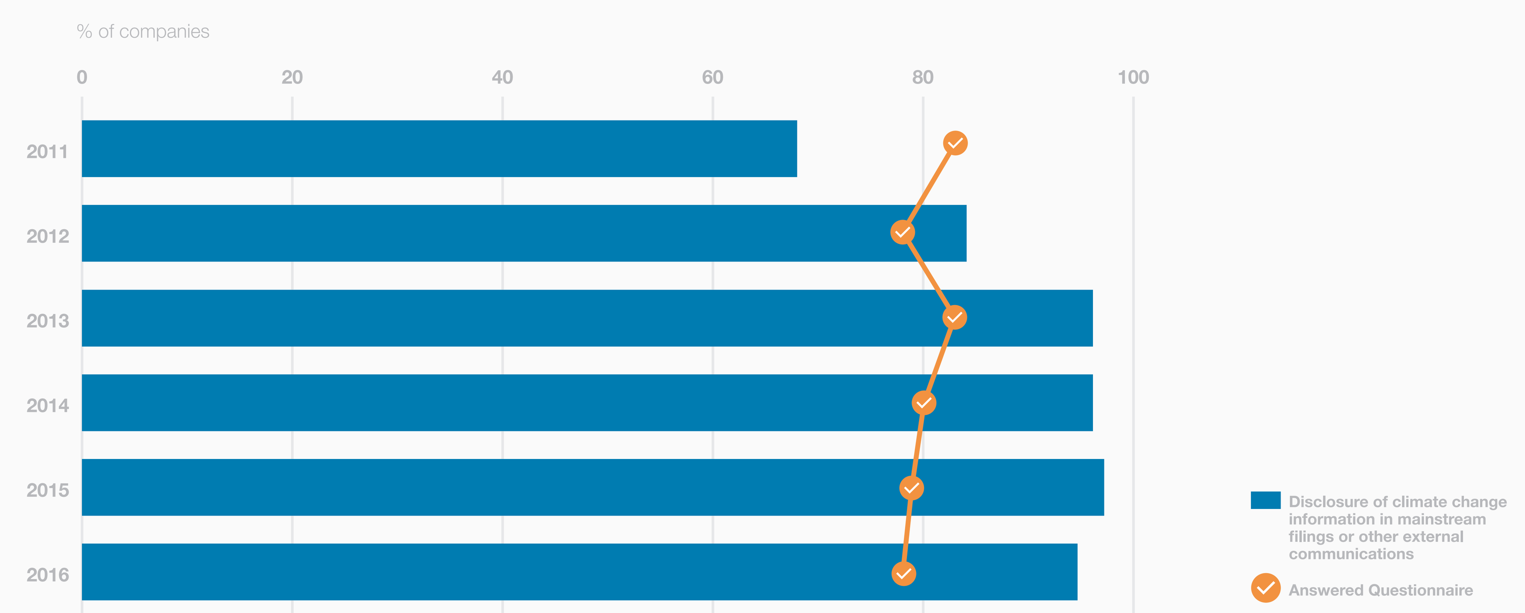


45% OF COMPANIES USE OR INTEND TO USE AN INTERNAL PRICE ON CARBON

companies using an internal price of carbon: **26% (2015:25%)**

companies that intend on setting an internal price of carbon within the next two years **19% (2015: 15%)**

Disclosure of climate change information in mainstream reports remains static



* This analysis is based on a very small sample of companies having set renewable energy targets

** Source: Eskom list of Fact Sheet, 2015