

Carbon Disclosure Project  
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**CARBON DISCLOSURE PROJECT**

Carbon Disclosure Project (CDP): Unternehmerische  
Strategien im Umgang mit den Risiken durch Klimawandel

*„CDP: Die vielleicht wichtigste Umweltorganisation, von der Sie noch nie gehört haben.“*



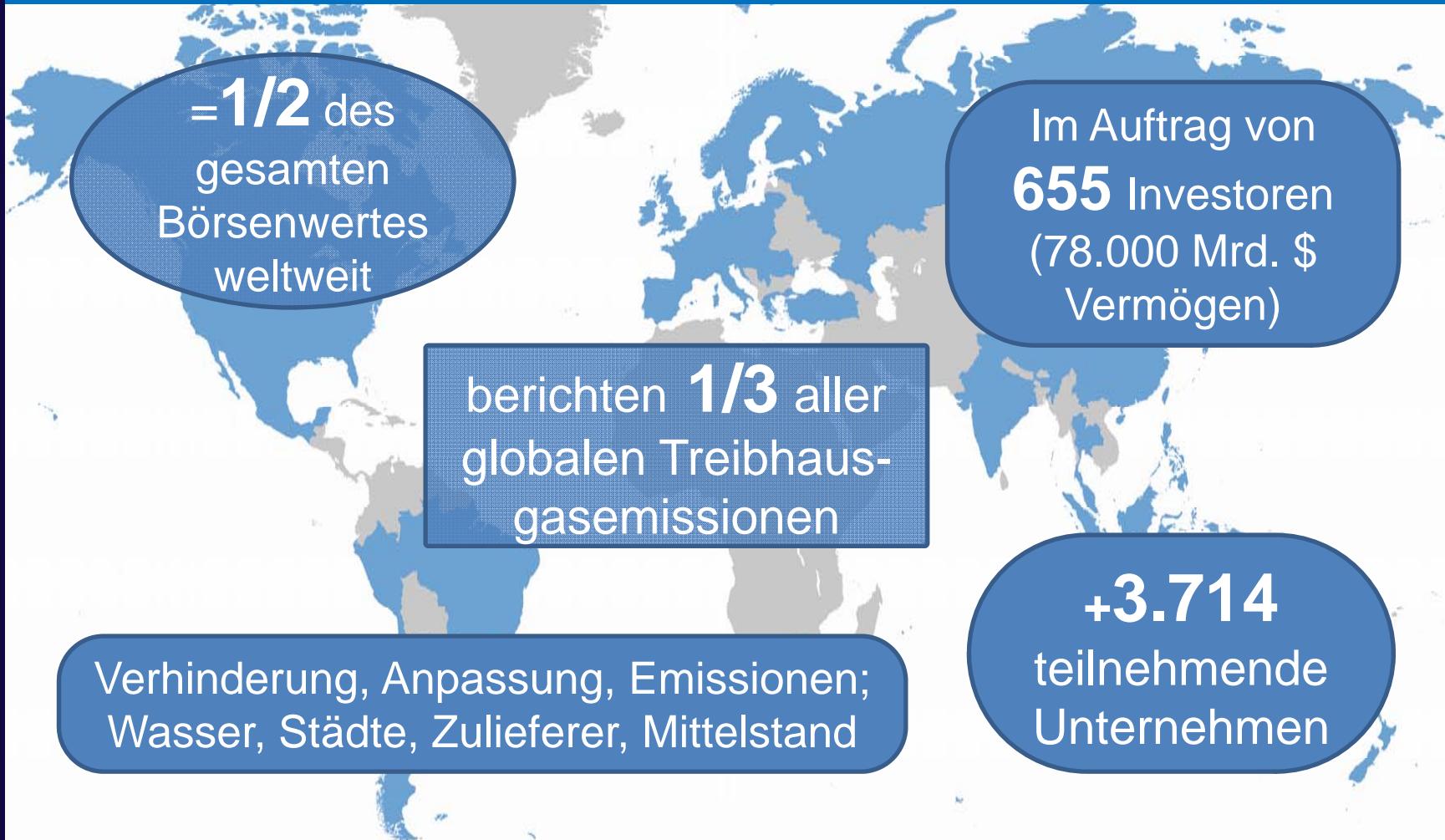
Harvard  
Business  
Review  
Blog  
2010

## Unsere Mission:

Wir glauben an die Wirkung von **MESSUNG** und **INFORMATION**. Wir wollen **RESSOURCEN schonen** und **KLIMAWANDEL verhindern**.

Deswegen rücken wir Umweltdaten ins **ZENTRUM VON ENTSCHEIDUNGEN** – bei Unternehmern, Eigentümern, Städten, Kunden, Zulieferern und Regierungen.

11 Jahre später: CDP ist die größte globale Vereinigung tausender Unternehmen und Investoren im Kampf gegen Klimawandel



## CDP heute: Die größte Datenbank der Welt zu Klima- und Emissionsprimärdaten von Unternehmen



## 5. Risiken verursacht durch den Klimawandel

5.1 Haben Sie Klimarisiken (aktuell oder zukünftig) identifiziert, die das Potenzial haben, substantielle Veränderungen Ihrer Geschäftstätigkeit, Ihres Umsatzes oder Ihrer Ausgaben zu bewirken?

Bitte identifizieren Sie die relevanten Kategorien:

- Risiken durch Gesetze/Regulierungen
- Risiken durch Veränderung der physikalischen Klimaparameter
- Risiken durch andere klimabedingte oder -bezogene Veränderungen

Weiterhin:

Bitte beschreiben Sie:

- i. die potentiellen finanziellen Implikationen der Chancen/Risiken vor Beginn einer Reaktion/präventiven Maßnahme;
- ii. die Methoden, die genutzt werden um, Chancen/Risiken zu managen, und
- iii. die Kosten, die mit den Aktivitäten in Verbindung gebracht werden

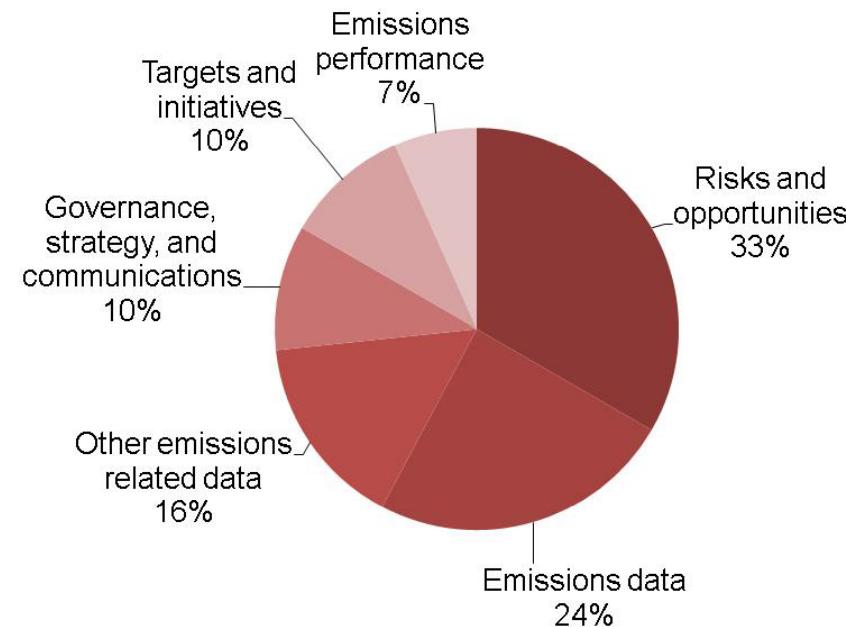
*Wenn Chancen und/oder Risiken für keine der Kategorien identifiziert werden konnten:*

Bitte erklären Sie, warum Ihr Unternehmen diesen Chancen/Risiken nicht ausgesetzt ist.

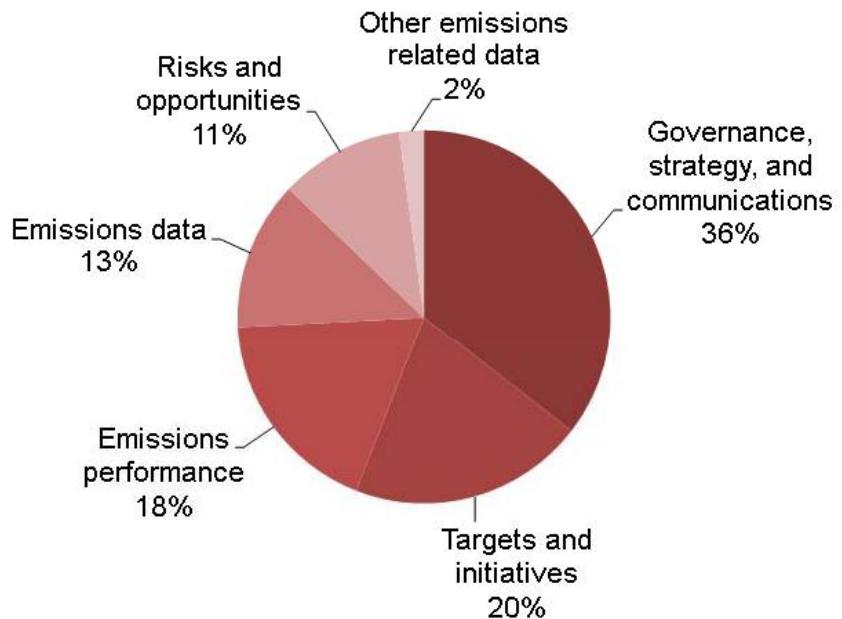
# Risiken und Risikomanagement spielen eine wesentliche Rolle in den CDP Scores

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Zusammensetzung  
Disclosure Score



Zusammensetzung  
Performance Band

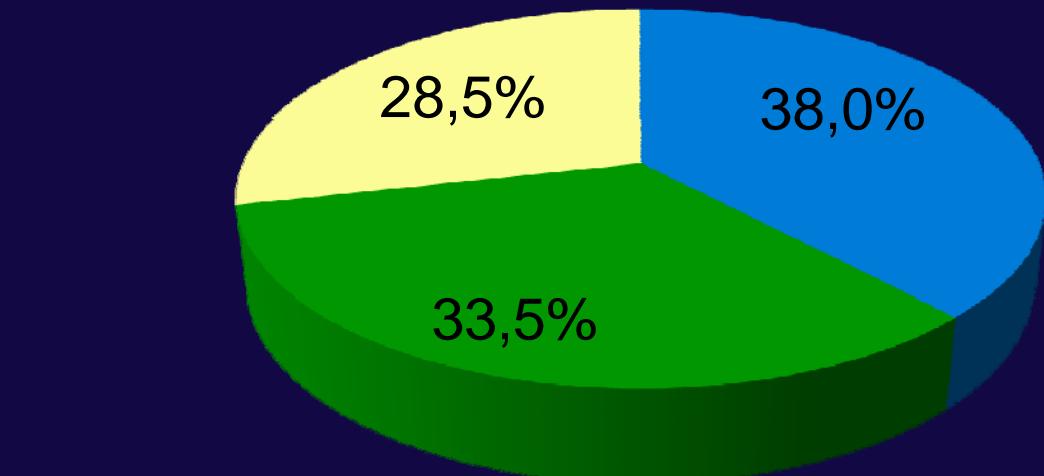


In der CDP Datenbank wird über 3.000 mal  
über Risiken berichtet

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andere Risiken

regulatorische Risiken



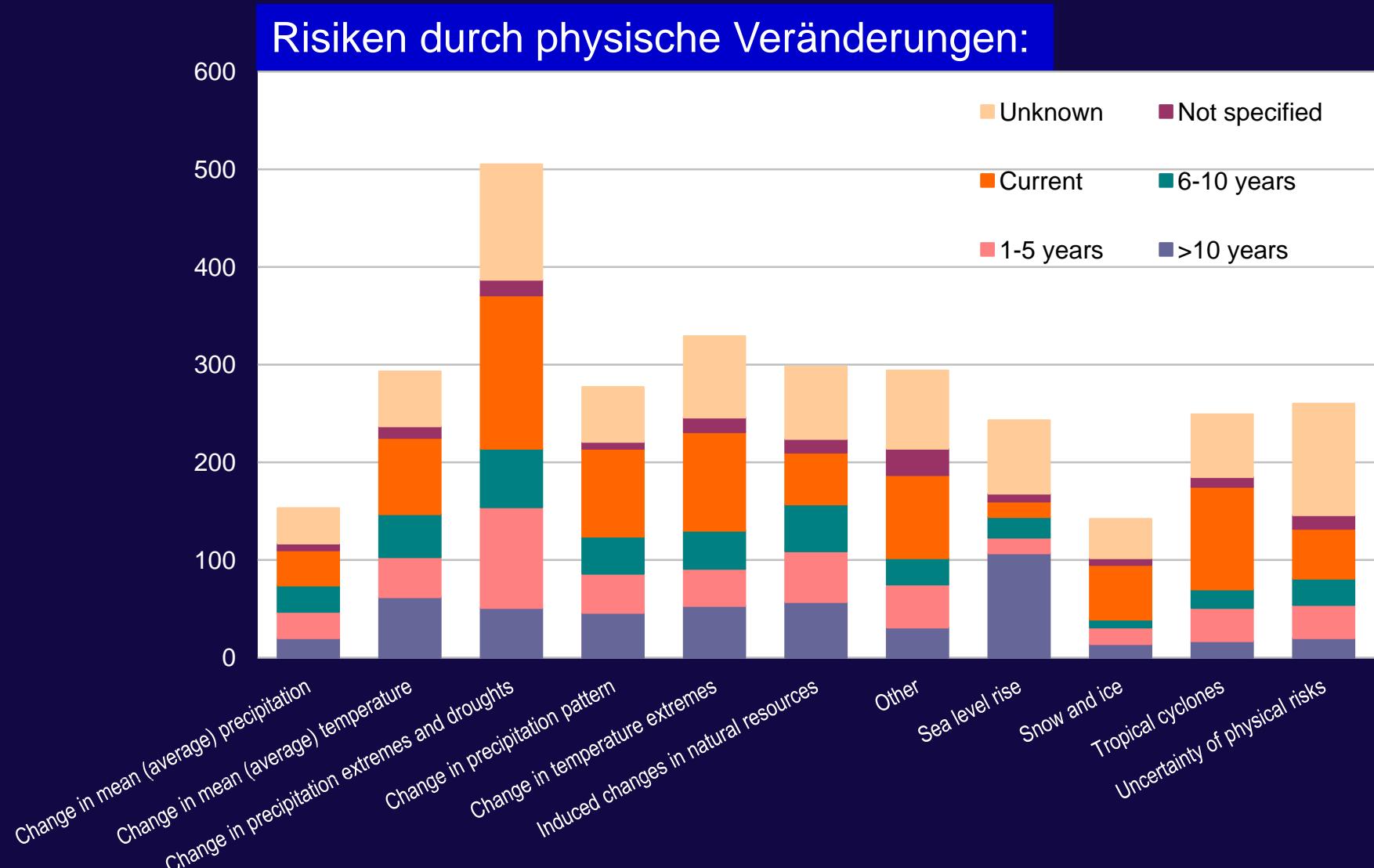
physische Risiken

## Risiken durch Regulierung:

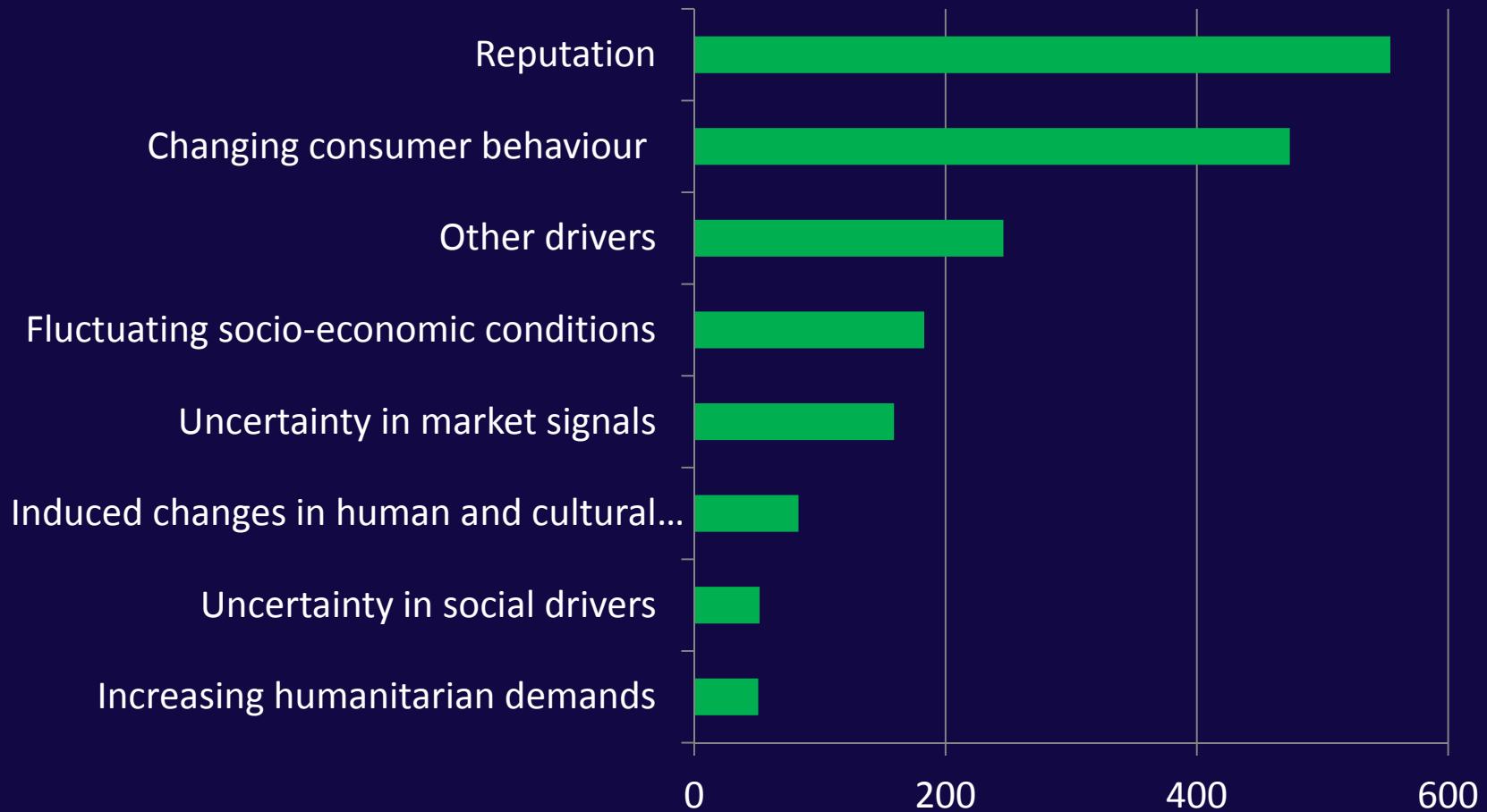


# Mehrheit der berichteten physischen Risiken tritt innerhalb der kommenden 5 Jahre ein

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## andere Risiken:





WIE  
GEHEN UNTERNEHMEN  
DAMIT UM?

Fast 60% der Unternehmen integrieren schon  
heute Klimawandel in ihr Risikomanagement

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Keine dokumentierten  
Prozesse / keine Angabe

Spezifischer Risikomanagement-Prozess  
für Klimawandel

10,3%

41,3%

48,4%

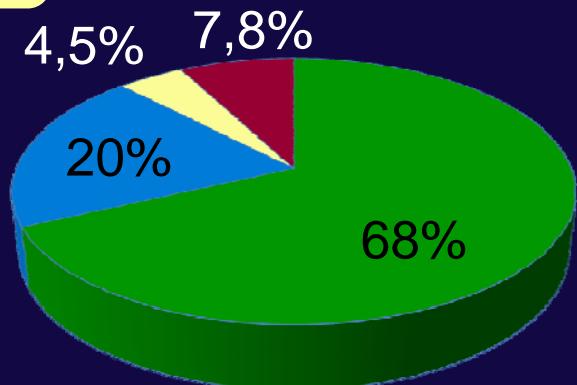
Klimawandel in einen multi-disziplinären unternehmensweiten  
Risikomanagement-Prozess integriert

# Bereits 2 von 3 Unternehmen haben Strategien zum Klimawandel an höchster Stelle integriert

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anderer Manager/  
Verantwortlicher

kein Individuum oder Komitee mit  
übergeordneter Verantwortung für  
Klimawandel / keine Angabe



Senior Manager/  
Verantwortlicher

Individuum / Sub-Komitee des  
Vorstands / anderes Komitee ernannt  
durch den Vorstand

# Best Practice Beispiele – Wie reagiert Bayer auf die Risiken des Klimawandels?

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## Top Answers for Governance & Strategy for Pharmaceuticals, Biotechnology & Life Sciences Industry Group

Company Name: Bayer AG - Investor CDP 2011

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities integrated into multi-disciplinary company wide risk management processes

2.1a

Please provide further details (see guidance)

i) Process scope: Managing opportunities and risks is an integral part of the corporate governance system in place throughout Bayer. All risks that could jeopardize a sustainable increase in the company's value are recorded in our risk management database BayRisk. In terms of scope, BayRisk covers both strategic and operational risks from the following areas (among others): Environment; economic and political frameworks; procurement; production/supply chain; sales markets; capital markets; IT; product development; HR. Thus, our risk management process considers climate-change-related regulatory, physical and other risks.

Our HSEQ and sustainability managers as well as our Climate Champions in the United States, India and China monitor legislative changes in the respective countries as well as academic research, e.g., regarding physical climate-related changes. Potential risks are reported to the Environment and Sustainability department of the Corporate Center. Physical risks related to climate change are further covered by the Bayer Emergency Response System – a mandatory element of our HSEQ management system. It is the task of the subgroups and strategic business entities to make use of the strategic opportunities that arise in their respective markets, whereas the Corporate Center supports the process as a sparring partner or challenger. Opportunities identified and exploited by our subgroups include regulatory, physical and other opportunities (e.g., demand driven by the growing awareness of customers on climate-related topics). To further identify and exploit climate-related opportunities, the "Energy and Climate" project was initiated in 2010 involving R&D and New Business experts from all subgroups to analyze their research pipeline with regard to energy and climate.

ii) Risk & opportunity assessment at company level: Risks and opportunities, including those related to climate change, are identified and substantiated at subgroup and business unit level as an integral part of the planning and controlling process. All subgroups, service companies and the units of the holding company have risk management coordinators and executives at upper managerial level who are designated as being responsible for risk management. Corporate Auditing is responsible for coordinating the identification and documentation of risk areas throughout the Group.

The opportunities and risks that are evaluated both qualitatively and quantitatively when determining the strategies of the strategic business entities and regions are updated at regular conferences held to discuss business performance.

The Community Board for Sustainable Development brings together different subgroups and business units and facilitates the sharing of information where risks and opportunities apply to several organizational units in the Bayer Group.

Our Climate Change and Legislation Summit serves to discuss relevant legislative developments such as international policy frameworks and national regulations, identify mid- and long-term risks, and discuss climate-related initiatives and opportunities. Participants include our worldwide Climate Champions, energy managers, public policy managers and the officers of our liaison offices. Furthermore, political developments are discussed by the Community Council for Politics.

iii) Risk & opportunity assessment at asset level: Risks that apply to individual facilities are evaluated within our HSEQ management process. These include, for example, weather-related risks such as hurricanes or storms that could impact our sites located close to the sea such as Baytown, Caojing or Antwerp.

Physical risks related to climate change are covered by the Bayer Emergency Response System (BayERS). BayERS is a mandatory element of the integrated HSEQ management system at Bayer production sites designed to ensure appropriate crisis management in the event of unusual occurrences. For non-ad-hoc and non-catastrophic events, Bayer closely monitors critical trends and is prepared to take action wherever the situation requires.

iv) Frequency of monitoring: Risk-relevant information is collected at least four times a year and on an ad-hoc basis if necessary. The CB SD described above meets on a quarterly basis to review all sustainability-related issues, including climate-related risks and opportunities. Focusing on regulatory risks, the Bayer Climate Change and

*"Bayer invested EUR 1 billion in climate-related R&D and projects between 2008 and 2010 under the umbrella of the Bayer Climate Program"*

(Bayer AG 2011)

## Top Answers for Governance & Strategy for Pharmaceuticals, Biotechnology & Life Sciences Industry

### Group

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# Best Practice Beispiele – Wie integriert BMW die Risiken des Klimawandels?

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## 2. Strategy

### 2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities  
Integrated into multi-disciplinary company wide risk management processes

#### 2.1a

Please provide further details (see guidance)

As part of the risk reporting system, the Board of Management and the Supervisory Board are regularly informed about risks which could have a significant impact on business performance. This information is derived from the BMW Group's integrated Enterprise Risk Management (ERM) system. Furthermore, business decisions are reached after consideration of in-depth project analyses which show potential risks and potential opportunities. In addition, as part of long-term planning, annual budget and short-term forecasts, the risks and opportunities attached to specific business activities are evaluated and used as the basis for setting targets and implementing appropriate risk-mitigation measures. Climate change risk and opportunities are integrated into this multi-disciplinary company wide risk management process which is covering all kind of risks and opportunities.

i) Scope of Process The risk management process comprises the early identification of risks and opportunities, their measurement and the use of suitable instruments to manage and monitor risks. The risk management system comprises a wide range of organizational and methodological components that are all finely tuned to each other. The system's decentralized structure also encourages a balanced approach to risks at all organizational levels. Within the internal risk management network dedicated managers are responsible for reporting and managing environmental and climate change issues. Climate Change Risks and Opportunities are allocated to various risk categories like regulatory, reputational, shifts in customer demand, operational (weather related risk and risk out of the supply chain belong to this category), physical risks.

There are other categories as well which are important to the company (e.g. financial risks, market risk, compliance, governance, human resources, R&D, ...). In addition to this bottom-up approach the company conducts a top-down approach as well. The top-down approach is formulating Wild Cards and Megatrends as part of our strategy. This riskradar covers Risks and Opportunities concerning climate changes as well.

ii) Process of Risk Assessment The risk management process is built up on a companywide functional network. Within that network it is the responsibility of these managers to report to the central ERM department all kind of risks exceeding a magnitude of impact of 100 million EUR. The likelihood of occurrence has to be reported as well. The network is built up at functional levels/departments and goes up the hierarchy till board level. Climate change risks and opportunities are therefore identified by various departments' and different function levels. The reporting to the board is coordinated by the risk management steering committee. This committee is proposing measures and actions to the board as well.

iii) Assessment of Risk at Asset Level Risks due to climate change are reported by the managers out of the risk management network. The assessment and evaluation is supported by a team of risk managers and insurance managers. Group external expertise is provided by experts from insurance companies (Allianz, Munich Re). Plants, locations and stores, logistic issues (distribution channel inbound and outbound), limited liabilities are considered as well as locations of plants of suppliers and risks in the supply chain. Important weather related risks are: Water damages, flooding, storms, blizzards, hail, interruption of distribution channels caused by climate changes and availability/usage of water.

iv) Frequency of Monitoring Regular reporting line to the board is updated at least twice a year. Substantial alterations of evaluated risks are reported immediately and will be monitored closely on an ongoing basis.

#### v) Criteria for determining materiality and priorities

Materiality is determined by the magnitude of impact and likelihood of occurrence. Materiality is measured by influence on P/L and cashflow and by influence on image/reputation of the company. All risks which might have an effect on image/reputation are managed at high priority. All laws and regulation deriving directly or indirectly out of climate change shall be fulfilled anyway. Physical risks are covered by insurances and are part of the annual reassessment with our insurance companies.

vi) To whom are the results reported? We do have a risk management steering committee. A central ERM department is collecting and evaluation all risks/opportunities reported from the functional departments throughout the group and is preparing the information to the steering committee. Members of the steering committee are first line managers of the group. This steering committee is prioritizing the reported risks and opportunities and is taking decisions about risks and opportunities reported to the board; it will propose measures and actions as well. The task of in-depth analysis, e.g. climate change, can be given by the board to functional departments on how to cope with the risks and opportunities reported at any time.

BMW erkennt über das „Enterprise Risk Management System“ Risiken - z.B. aus dem EU ETS Trading Scheme - die mit einer Wahrscheinlichkeit von fast 100% eintreten werden.

Powered by:  
SAP BusinessObjects  
BI OnDemand

## 2. Strategy

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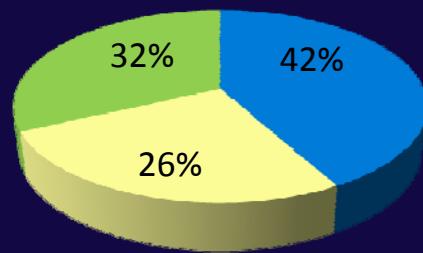
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# KLIMAWANDEL:



NUR EIN RISIKO?

■ Regualtory ■ Physical ■ Other



*"If the methodology for comparing the energy efficiency of various products is clearly defined in regulations, the **high energy efficiency of Honda products** can be demonstrated, which would be **a great business opportunity for Honda**. Because Honda has been stressing enhanced environmental performance in particular since concerns about air pollution began to grow in the 1960s, the **ample competitiveness of each product line-up can be clearly demonstrated.**" (Honda)*

*"Fortum has a long experience from operating in Nordic conditions. We are used to harsh winters and **can deliver our customers the power they need also during heavy snowfalls**. The experience gained in Northern Europe can be useful in our other operating countries, too. Climate change can increase the probability of heavy snowfalls for example in Poland. **We are prepared to manage the challenges** set by snow e.g. in **storing of fuel** or **maintaining the district heating pipelines**." (Fortum Oyj)*

*"It is said that consumers' awareness towards global warming continues to rise every year. We believe that only the companies that actively work on environmental issues can survive future competition. This will be an **opportunity to enhance Panasonic's Energy System Business**, including **solar cells, lithium-ion batteries, and energy management**. Additionally, Panasonic develops a number of **No. 1 energy-saving products**, the **sales expansion** of which can be anticipated as well." (Panasonic)*



WIE

KANN MEIN UNTERNEHMEN SCHRITT  
HALTEN?

- **Kick-off** Webinar mit bis zu **500 Emissionsreduktionsmaßnahmen** aus Ihrer Branche
- **Zugang** zum CDP Online Response System
  - Vertrauliche Behandlung Ihrer Klimadaten
  - Bis zu 8 Stunden persönliche **Betreuung** durch einen erfahrenen Berater von **PE INTERNATIONAL**
- Bewertung nach den zwei CDP-**Ratings** durch **TÜV SÜD**
- **Benchmarking**-Analyse gegen selbstwählbare Vergleichsgruppen auf Basis der **weltgrößten Unternehmensklimadatenbank**
- Individuelle Präsentation im persönlichen **Gespräch**: Erläuterung der Ergebnisse und **Verbesserungspotentiale** durch **TÜV SÜD**



**Jahresbeitrag:** 2.925 € – 4.975 €  
(abhängig von Unternehmensgröße)



**„Das CARBON DISCLOSURE PROJECT ist  
lebensnotwendig – und deswegen sollte  
jeder daran teilnehmen!“**

**BILL CLINTON  
2007**

