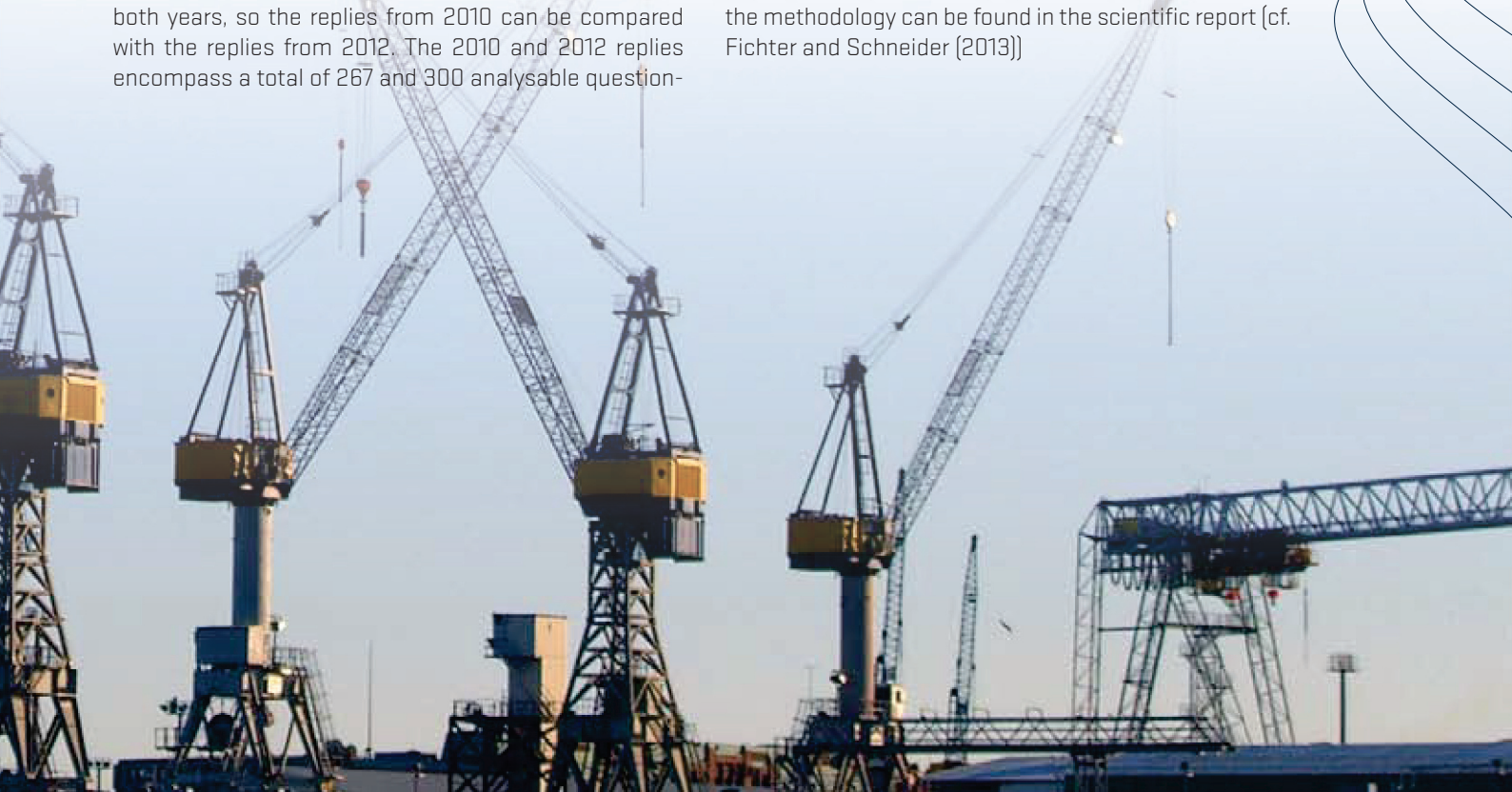


The Economic Importance of Climate Change is Growing

The survey of 4.000 companies in the metropolitan area of Bremen-Oldenburg in north-western Germany conducted by the University of Oldenburg as part of the 'nordwest2050' project in 2010 and 2012 showed that the economic importance of climate change is growing. The 2012 survey revealed that 38% of the companies polled already saw climate change as an important success factor for their company. In 2010, 31% of the companies surveyed said that they ascribed a "high" to "very high importance" to climate change for corporate success.

This short + sharp presents and compares key results of the company survey performed in 2010 and 2012, and, in addition, presents key findings from six case studies on corporate climate adaptation strategies. In 2010 and 2012, 4.000 companies from the metropolitan area of Bremen-Oldenburg were surveyed using a four-page questionnaire. The same companies were contacted in both years, so the replies from 2010 can be compared with the replies from 2012. The 2010 and 2012 replies encompass a total of 267 and 300 analysable question-

naires respectively, i.e. the response rate could be increased from 6.8% to 7.6%. Altogether 125 companies took part in the survey, both in 2010 and 2012. Because of the chosen random sampling approach, the results of the survey enable statements to be made about climate adaptation of companies in the whole of the metropolitan area of Bremen-Oldenburg. Further information on the methodology can be found in the scientific report (cf. Fichter and Schneider [2013])



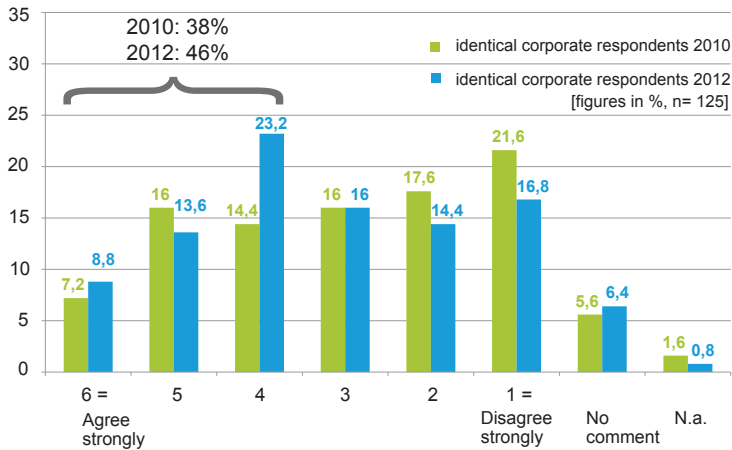


Results of the Company Surveys in 2010 and 2012

The level of awareness of climate change is increasing:

The consequences of climate change are already clearly noticeable today by more than one third of the companies surveyed. Of the companies who took part in both the 2010 survey and the 2012 survey (“identical corporate respondents”) in 2010 just under 38% agreed completely (6) to somewhat (4) with the statement that “Climate change is already clearly noticeable by my company today”. The agriculture, construction, real estate and housing as well as the hospitality sectors appeared to be particularly sensitive to changes resulting from climate change. The results from 2012 demonstrate that the level of awareness had risen even further. 46% of the replies from identical corporate respondents agreed completely (6) to somewhat (4) with the same statement in 2012.

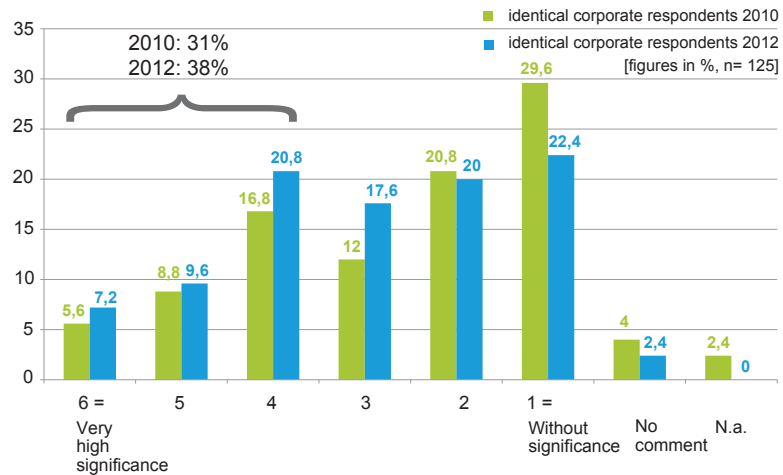
Consequences of climate change are already noticeable by my company



The economic importance of climate change is growing:

In 2010 31% of the companies polled stated that they ascribed a “high” to “very high importance” to climate change for corporate success. In the 2012 survey, 38% of companies saw climate change as an important success factor for their company.

Significance of the climate change for business success



The strategic relevance of climate change is increasing:

In the opinion of the companies who participated in both the 2010 and the 2012 survey, the effects of climate change will gain substantially in strategic relevance in future. Over half the companies surveyed stated that the effects of climate change would be strategically important for their corporate success by 2050. However, overall there was still a great deal of uncertainty amongst respondents about what impact the effects of climate change would have on their own company and how they would be able to prepare for them effectively.

Growing awareness of the problem in companies and effects of ‘nordwest2050’:

Whilst awareness of the problem among respondents rose between 2010 and 2012, uncertainty about the effects of climate change slightly fell. The biggest reduction was recorded for practical partners involved in the joint ‘nordwest2050’ project. The activities of the ‘nordwest2050’ project appear to be having an effect here. As regards the other respondents, it became clear that the companies felt informed about the effects of climate change, but only a few of the companies polled named information sources for climate change that they considered reliable.



Supply shortages and liquidity problems should be taken into account:

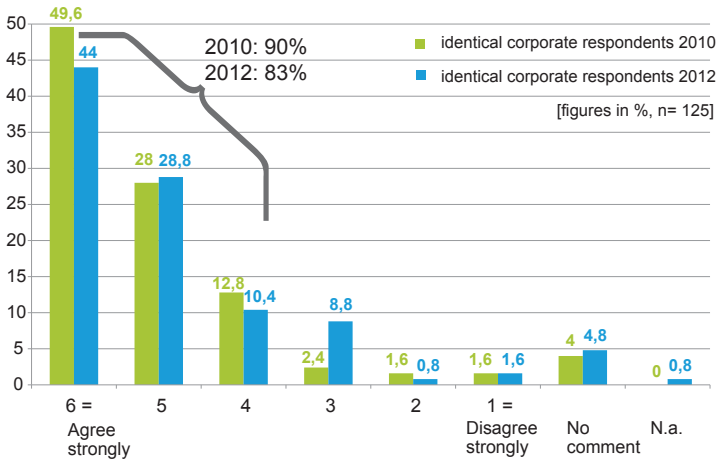
Around one third of the companies surveyed in both 2010 and 2012 (identical corporate respondents) in the latter survey expected shortfalls in the delivery of goods, IT failure or supply shortages over the next 10 years due to weather conditions. Moreover, the number of companies who could “completely rule out” their company being affected by supply shortages in the next 10 years had decreased from 14.4% (2010) to 8.8% (2012). The rating of the risk of liquidity problems due to availability problems or supply shortages rose slightly between 2010 and 2012. In 2012, 21% of identical corporate respondents considered this risk to be somewhat likely (4), likely (5) or very likely (6).

Measures for adaptation to climate change are seen as necessary:

In 2010 90% and 2012 83% of the companies surveyed agreed completely (6) to somewhat (4) with the assessment that measures for adaptation to the effects of climate change would be needed.

A large section of the companies polled were planning or implementing measures that might be helpful for adaptation to the effects of climate change, such as insurance, decentralised energy supply or construction measures. However, whether these activities were targeted climate adaptation measures or whether they were principally aimed at adaptation to the effects of climate change or other objectives could not be determined within the framework of the survey. Within the scope of supplementary case studies performed by Fichter, Hintemann and Schneider (2013), it has become clear that climate adaptation measures are more likely to be implemented in companies if they can be combined with other corporate goals.

We need measures for adaptation to the effects of climate change



sibility to implement climate adaptation measures independently. Compared to the assessment of their personal responsibility, less responsibility was assigned to the government for instance, although slightly more than in 2010. These views were expressed by respondents who had already suffered damage in the past due to extreme weather conditions (e.g. hail, storms, heat waves, etc.).

Improvement in information services:

As far as information services on the subject of climate change



and climate adaptation is concerned, it transpired that in the opinion of the companies surveyed both the availability and quality of information had improved within two years. Nevertheless, there was still a need for action by chambers of commerce, professional organisations and science, as considerable information gaps could still be seen. Despite the improving quality of information, around 70% of respondents in 2012 stated again that they did not trust any information sources concerning climate change.

The prospect of opportunities is still greater than the prospect of risks:

The assessment of the companies surveyed with regard to opportunities and risks of climate change largely remained stable. In 2012 respondents assumed again that in the long run it would be more likely that opportunities would open up due to climate change rather than risks increasing.

Important findings from case studies on corporate climate adaptation strategies

(cf. Fichter, Hintemann and Schneider 2013):

Without exception, the examined companies considered climate change to be an environmental change that needs to be taken seriously, which is today already having a noticeable effect on individual sectors (particularly agriculture) and will affect a lot more industries in the future.

In corporate practice, climate protection and climate adaptation are frequently seen as an integrated challenge and a clear distinction is not made between them. This may be satisfactory in some cases, but in other cases it may reduce the relevance of implementing climate adaptation measures if climate risks are not examined separately and are confused with emission reduction.

As regards the importance of external stakeholders in corporate climate adaptation, the special role of science must be highlighted. Representatives of both companies and trade associations regard science as being very credible when it comes to climate change (risks and opportunities). Moreover, science is referred to by respondents as a major driver for solutions to deal with the effects of climate change.





Conclusions and Recommended Action

The companies surveyed felt increasingly informed about the effects of climate change. At the same time, the surveys reveal a low level of trust in information sources outside their own sphere of perception and experience (e.g. own damage incidents, advice from in-house advisory boards, etc.). All the same, 70% of all respondents stated that they did not know any information source they could trust with regard to climate change. This result must be discussed with chambers of commerce, trade associations and other organisations offering business support as well as with the political players and authorities responsible for climate adaptation strategies. If we also include the importance of damage experience, then service providers who receive damage reports, such as insurance companies, could become distributors for climate adaptation information too.

Despite the deficits which still exist in terms of information sources, the supply of information on climate change to companies has noticeably improved in the metropolitan area of Bremen-Oldenburg. This change could on the one hand be due to the increasing awareness in the media in general, but it might also be attributable to the preparation and organisation of target-group-specific information materials and events in the surveyed area of Bremen-Oldenburg in connection with the ‚nordwest2050‘ project. To guarantee an adequate provision of information for companies, it is important that business players are permanently supplied with information specifically tailored to their needs even after the end of ‚nordwest2050‘. The “Netzwerk Innovation und Gründung im Klimawandel” (NIK) (network for innovation and entrepreneurship in times of climate change), sponsored by the German Federal Ministry for the Environment, the “Verein Metropolregion Bremen-Oldenburg im Nordwesten” (association for the metropolitan area Bremen-Oldenburg in north-western Germany) and the City of Oldenburg in the period July 2013 to December 2015 can make a significant contribution to this and is to ensure the permanent establishment of information and advisory services for companies, chambers of commerce, trade associations and other business players.

Companies still see more opportunities than risks in the effects of climate change. However, where these opportunities are supposed to lie remains unclear. The extent to which climate change could lead to a change in market demand and which innovative products or services might cover this demand is a question most companies have not been able to answer as yet. The key here is to better work out existing market, business and innovation opportunities. This is one of the tasks of the new “Netzwerk Innovation und Gründung im Klimawandel”, but also of the chambers of commerce, the local and regional business development institutions and the trade associations.

“Netzwerk Innovation und Gründung im Klimawandel” (NIK):

A new service for companies and business development institutions for the development of innovative solutions for climate adaptation

The NIK, born out of ‚nordwest2050‘, will prospective support the business community in the metropolitan area of Bremen-Oldenburg with regard to climate adaptation and climate-related innovation opportunities as follows:

- The NIK identifies, stimulates and supports existing companies and founders of new businesses offering innovative solutions for adapting to the effects of climate change within the scope of advisory sessions and workshops.
- The NIK gets involved in the regional structures of the metropolitan area and pursues the establishment of effective cooperations with regional stakeholders involved in promoting innovation, creative activity and business as well as political stakeholders at national and regional level.
- The NIK supplements existing start-up advice and innovation support offers by means of a climate adaptation competition and annual innovation reports for climate adaptation, thus supporting the existing innovation and start-up advice facilities in the metropolitan area of Bremen-Oldenburg.

Further information is available at www.uni-oldenburg.de/wire/innovation/forschung/nik/ and very shortly at www.n-i-k.net

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Technology Centre and Network (CTCN)", which is currently being created within the context of the United Nations Framework Convention on Climate Change (UNFCCC), is to promote the transfer of technologies and services for emission reduction and climate adaptation from industrial nations to emerging and developing countries. The national point of contact based at the German Federal Ministry of Economic Affairs and Energy and its transfer support should also be used intensively by companies in the metropolitan area of Bremen-Oldenburg.

Further reading

Fichter, K., Hintemann, R., Schneider, T. (2013). Unternehmensstrategien im Klimawandel: Fallstudien zum strategischen Umgang von Unternehmen mit den Herausforderungen der Anpassung an den Klimawandel [Corporate strategies for climate change: cases studies on strategies adopted by companies for dealing with the challenges of adapting to climate change]. ‚nordwest2050‘, Workshop Report No. 20

Fichter, K., Schneider, T. (2013). Wie Unternehmen den Folgen des Klimawandels begegnen. Ergebnisse der Panelbefragung 2010 und 2012 (How companies are dealing with the effects of climate change. Results of the panel survey 2010 and 2012). ‚nordwest2050‘, Workshop Report No. 24

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