

Industry Survey

from China; April - 2022

Background & Introduction

The international automotive market has suffered a turbulent year in 2021 and is still experiencing the challenging start to 2022. The supply chain uncertainties, pandemic lockdown, and the war between Russia and Ukraine exacerbated the current situation and affected the VDA members' operation in China.

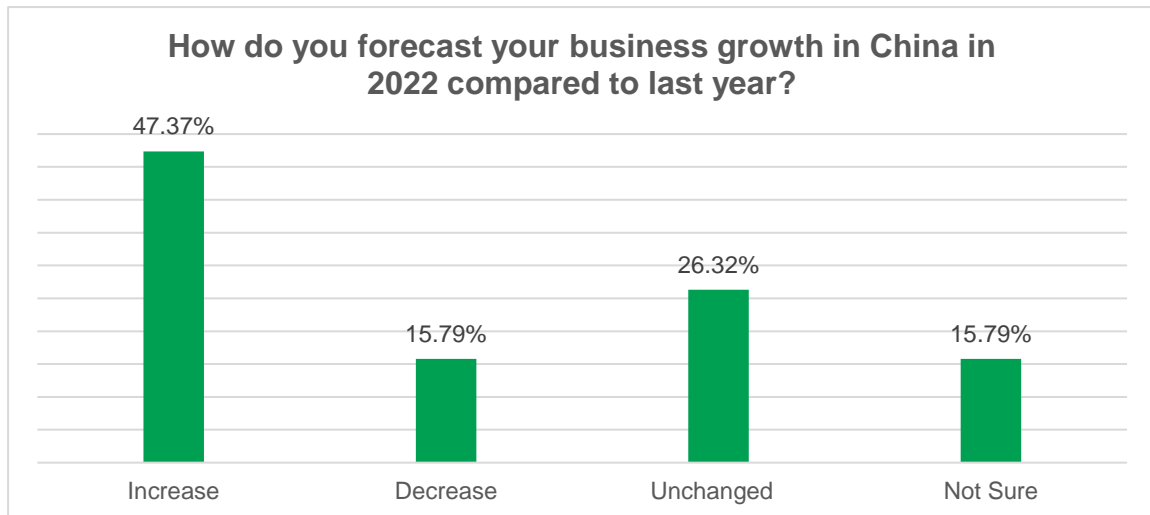
The industry survey by the VDA was conducted among members in China from the end March to early April. These questions of the survey are varied, cover a diverse range of topics: **from business forecast/expectation, environmental/political impact on business operations, supply chain challenges, to the key areas VDA are advocating incl. cybersecurity & data security, and carbon neutrality.** It aims to help members in China collect the snapshot of the business operation, common challenges are facing, realize compliance measures to take, and further support the pragmatic Sino-German cooperation in the automotive industry for future. Furthermore, the results of the survey will be the foundational element of our Consolidated Paper, as an input from the industry perspective for the upcoming inter-governmental consultations.

Key Findings of the Survey

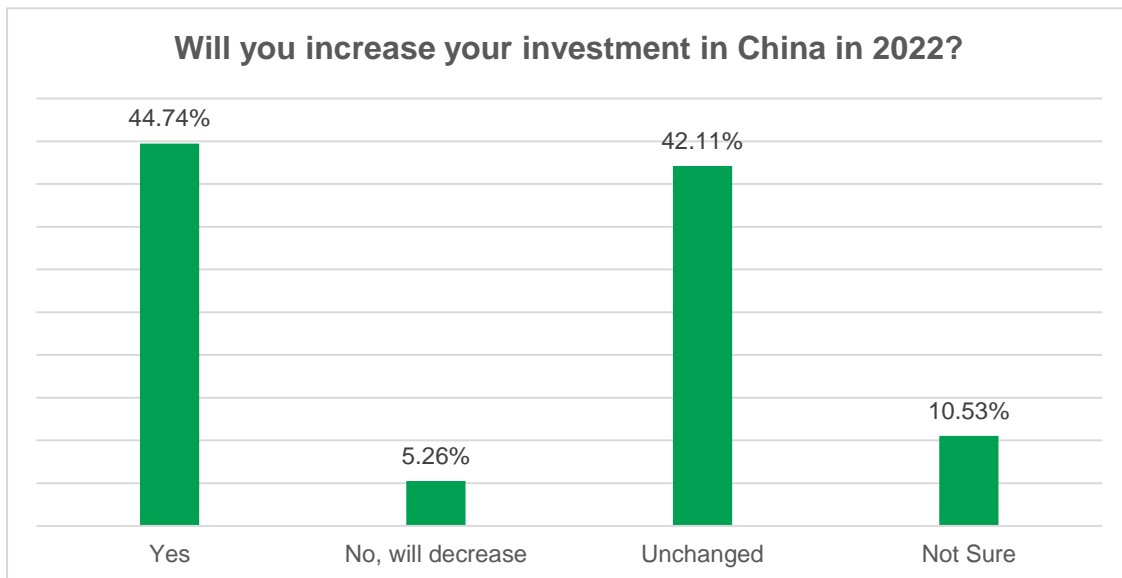
- **Half of surveyed members foreseeing business growth under the difficult situation. R&D and production are still focus areas to increase investment.**

Even facing the current challenging situation, almost half (47%) of surveyed members hold confidence on their business growth in China. 16% of companies expect business decrease or unchanged for 2022. Around one fourth (26%) companies foresee no changes of their business compared to last year.

Almost half (45%) of surveyed members will increase their investment in China, mainly focus on R&D and production area. 42% of companies will not change their investment. 11% of companies are not sure about their investment yet, while 5% of companies will decrease their investment in 2022.

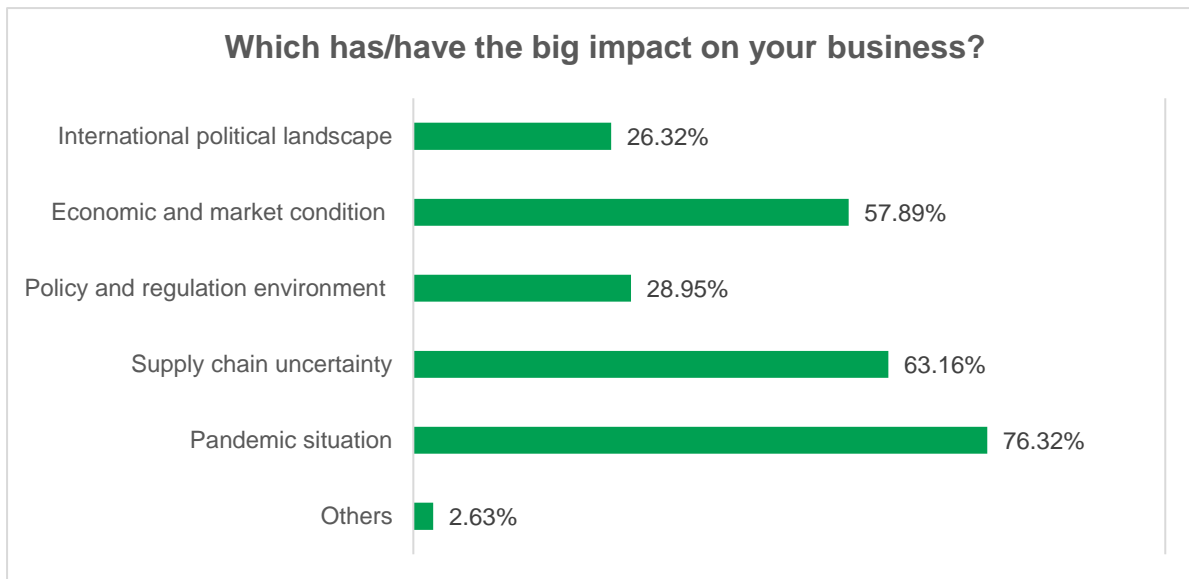


(Note: Among increase expectation, 35% expect growth rate would reach 3%-5%, 35% expect to grow by 10%-15%, 15% expect to grow by 20-30%, while the rest predict their business growth will be even higher than 30%; Of decrease growth rate, max. rate is 20%)

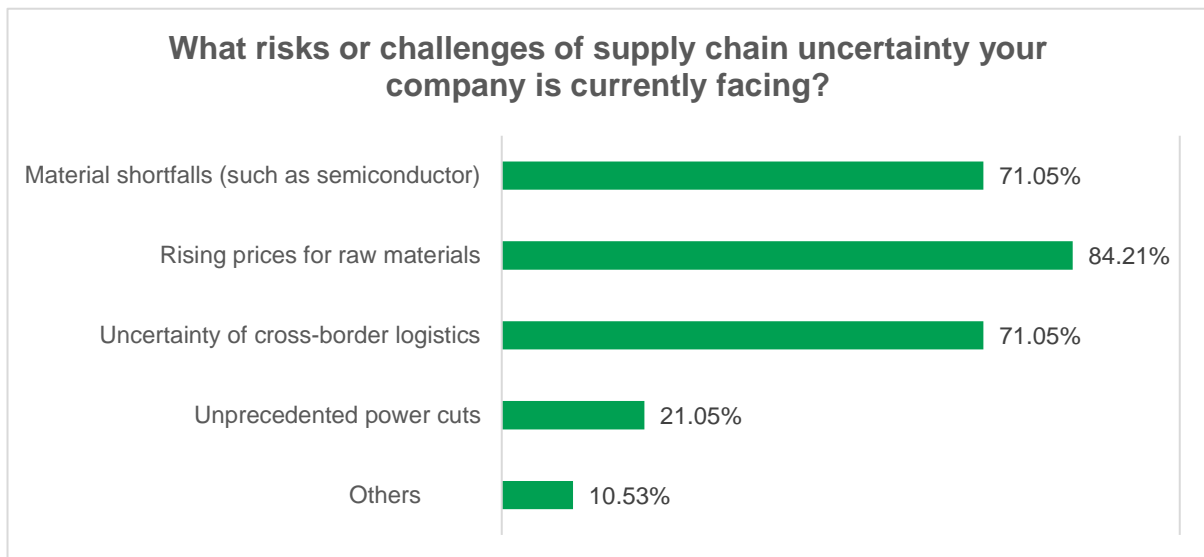


- **The pandemic situation and supply chain uncertainty haunt most surveyed companies for their business operation in China. Rising prices for raw materials, shortage of the semiconductor and logistics disruption are key factors affecting the supply chain.**

Regarding the environmental/political factor on the business operations, 76% of surveyed members are facing challenges caused by the pandemic situation (e.g., travel restriction, zero-tolerance policy). (Note: This figure was concluded based on the responses from late March or early April. It's believed the percentage would be even higher due to the recent COVID lockdowns in several cities of China from April.) The second biggest challenge is the supply chain uncertainty (63% of the companies are suffering with this). The uncertainty is believed mainly from rising prices for raw materials (84% of companies), materials shortfall (e.g., semiconductor) and uncertainty of cross-border logistics ranks the second (each with 71% of companies choose these 2 factors).



(Note: Multiple choices are applicable, percentages based on number of responses)



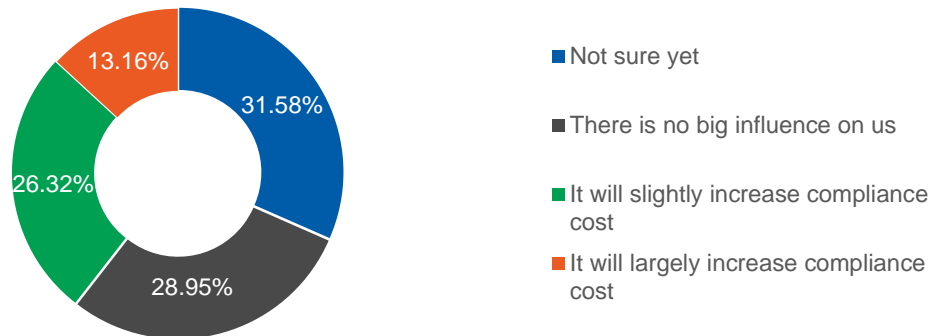
(Note: Multiple choices are applicable, percentages based on number of responses. Other factors incl. labor shortage, high transportation cost for import materials, competition in engineering resources)

- **Most surveyed companies in China are not clear or see slight/no influence of German Supply Chain Act on them. Therefore, most of them are in planning phase or have no plan yet to comply with the Act.**

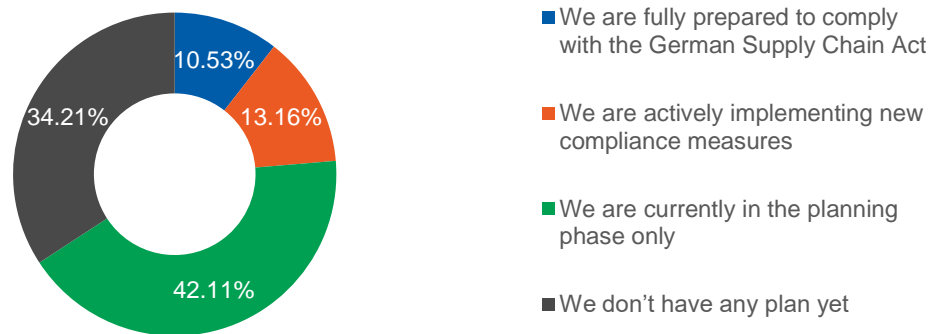
Regarding the influence of the German Supply Chain Act, 32% of the surveyed companies are not clear about that yet; 29% of companies see no big influence on them; around one fourth (26%) of companies estimate slightly compliance cost will arise. 13% of companies see large compliance cost will increase for them.

Based on this estimation, only 11% of surveyed companies fully prepared to comply with the Act; 42% of companies are in planning phase; 34% of companies don't have any plan yet; 13% of companies are actively implementing the compliance measures.

How does your company evaluate the influence from the German Supply Chain Act?



How does your company implement new compliance measures for the German Supply Chain Act?



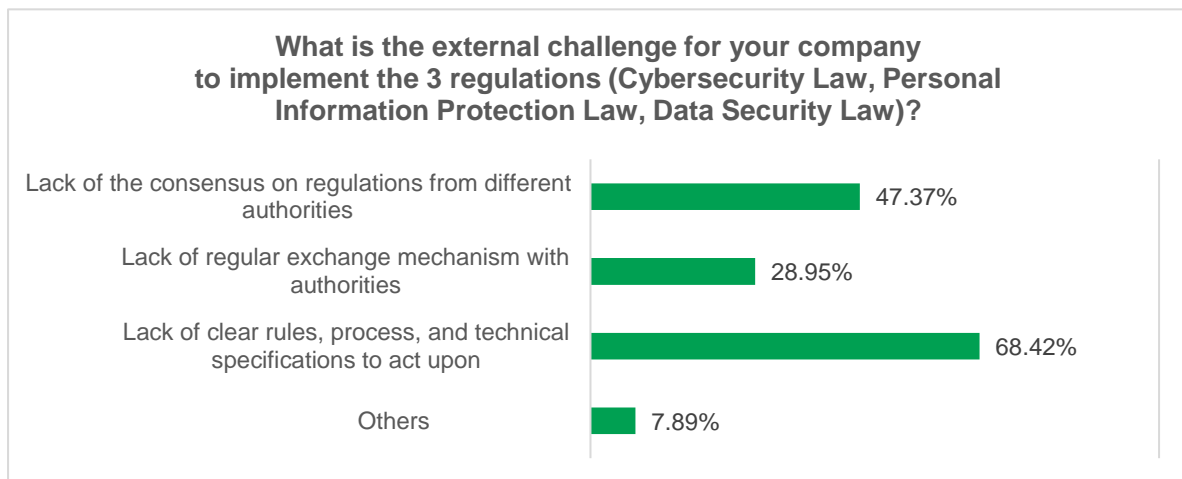
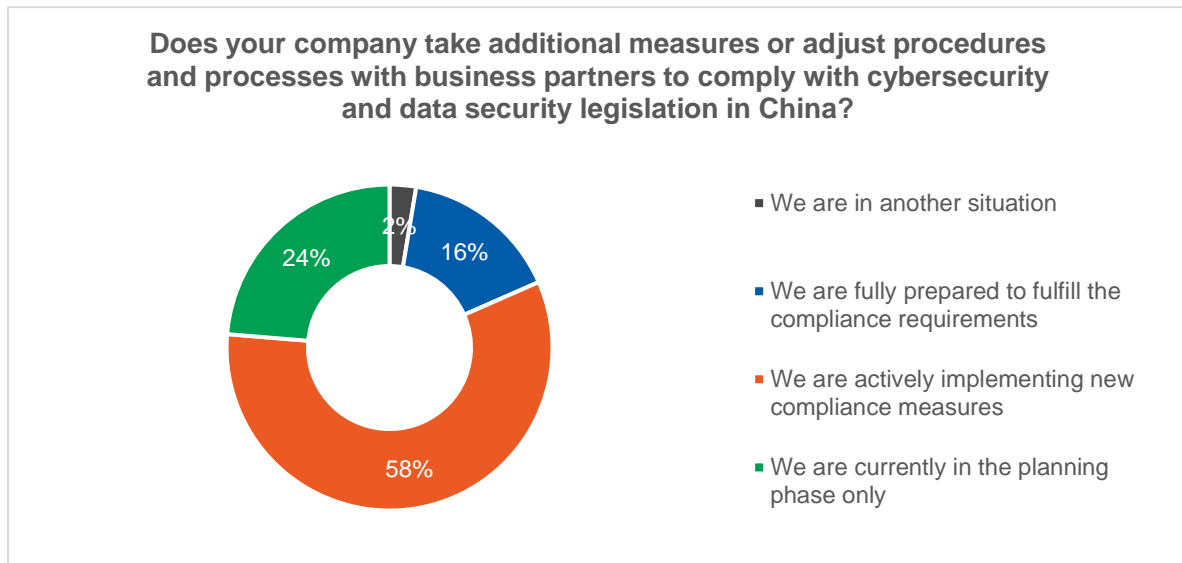
- More than half of surveyed companies are actively implementing new compliance measures for the Cybersecurity (CS) and Data Security (DS) legislation. Only a few are fully prepared to fulfill the compliance. Lack of clear rules, process, and technical specifications to act upon is the biggest external challenge while lack of effective communication mechanisms is the common internal challenge.**

Regarding the status of members to comply with CS and DS legislation, 58% of surveyed companies are actively implementing the compliance measures with business partners to comply with cybersecurity and data security legislation in China; 27% of companies currently are in the planning phase; 16% of which believe they are fully prepared to fulfill the compliance requirements.

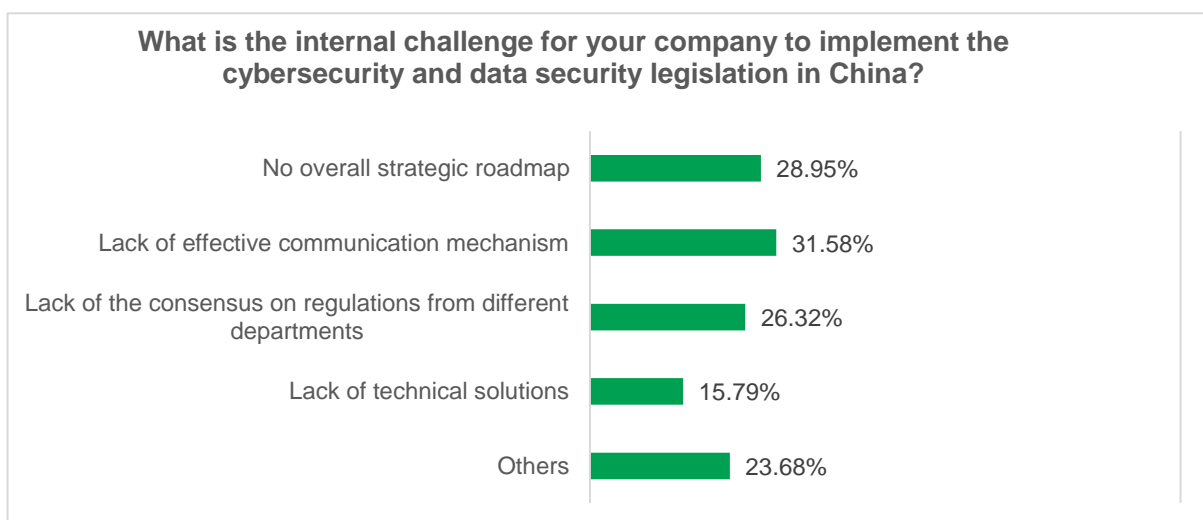
68% of surveyed companies are facing the challenge that lack of the consensus on regulations from different authorities, 47% of companies see lack of the consensus on regulations from different authorities is the external challenge to comply with the CS and DS legislation, 29% of companies think lack of regular exchange mechanism with authorities is another obstacle.

The internal challenges for surveyed companies are varied from lack of effective communication mechanism (32%), no overall strategic roadmap (28%), lack of the consensus on regulations from

different departments (26%), to lack of technical solutions (16%). In addition, no sufficient training and strict monitoring on employee execution is also mentioned as the internal challenge.



(Note: Multiple choices are applicable, percentages based on number of responses. Other factor incl. lack of enough lead time, certain requirements are potentially discriminatory against foreign players, regular changes of policies and interpretations)

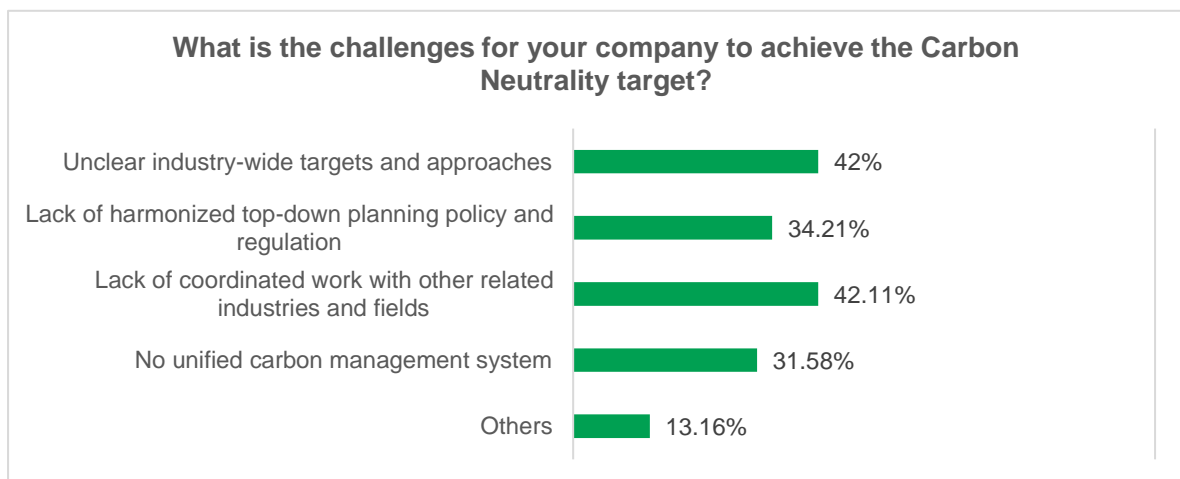
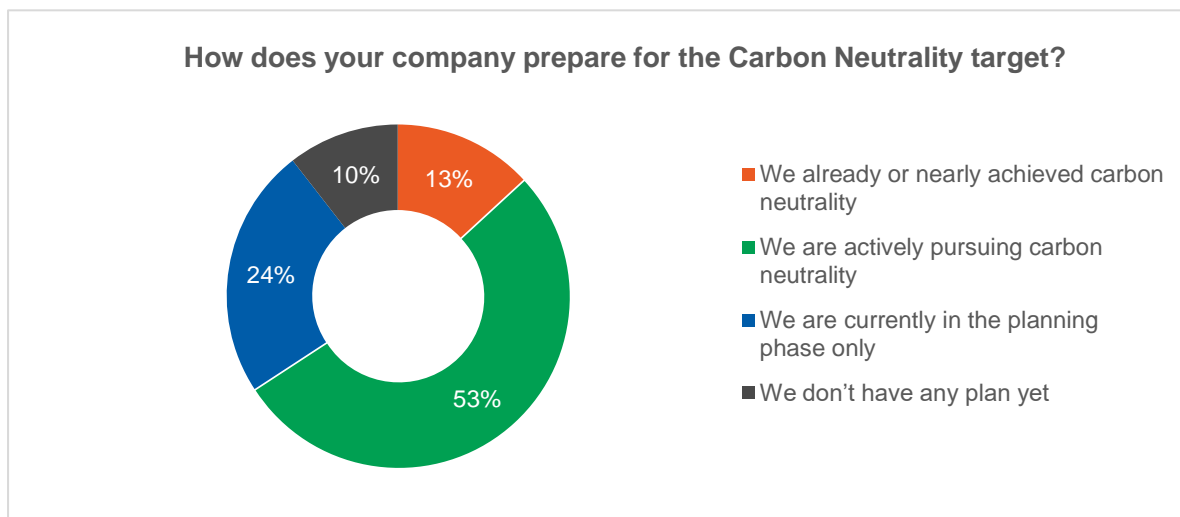


(Note: Multiple choices are applicable, percentages based on number of responses. Others incl. lack of sufficient training and strict monitoring on employee execution)

- **To achieve the target of Carbon Neutrality, most surveyed companies have initiated different measures, 13% of which have already or almost achieved the target. Lack of coordination with other related industries and fields, unclear industry-wide targets and approaches are the most common challenges for companies.**

Most (53%) of member companies are actively pursuing carbon neutrality; One fourth (24%) are in planning phase; 13% already achieved carbon neutrality; 10% of which don't have plan yet.

Lack of coordinated work with other related industries and fields is the most common challenge among those companies (42%); Unclear industry-wide targets and approaches is also mostly believed the common challenge (42%). 34% of surveyed companies think the challenge also incl. lack of harmonized top-down planning policy and regulation; 32% of companies think that no unified carbon management system is the barrier.



(Note: Multiple choices are applicable, percentages based on number of responses. Others incl. Supply chain side is still lack of carbon management system to support)

Summary and outlook

For the global automotive market, the difficult situation of supply chain caused by the pandemic as well as considerable restrictions in terms of logistics and distribution have not been overcome. In addition, high raw material and energy prices and the resulting inflation in many regions are factors of uncertainty for economic development. What's more, China's recent COVID lockdowns in several cities: Shanghai, Changchun, Shenyang, Guangzhou, etc. where major auto makers and suppliers located halted production have been seriously affecting the vehicle production all over China even the global market.

From the results of survey, we see nearly half of VDA members still hold confidence in the business growth and investment. Regarding the key focus of the industry: e.g., the CS and DS legislation, companies are actively taking measures to fulfill the requirements, however the clear rules, processes, and feasible guidelines from the authorities are still needed. In terms of Carbon Neutrality, most of companies are actively pursuing the target, while some of them have already achieved the target ahead of schedule. The future efforts to make shall be in the specific target of automotive industry and coordinated work with related ministries and fields.

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