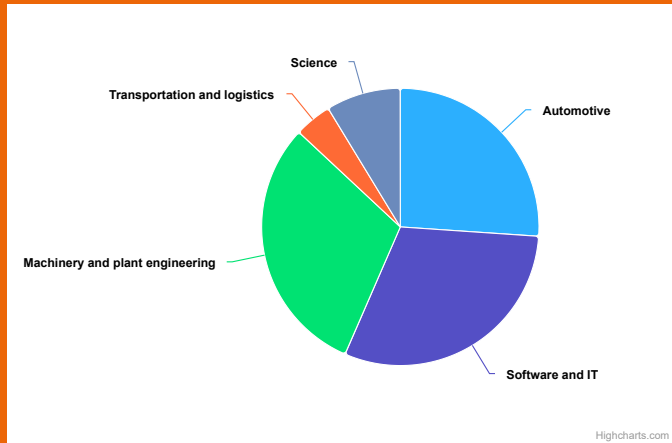


## Which sector would you assign your company to?



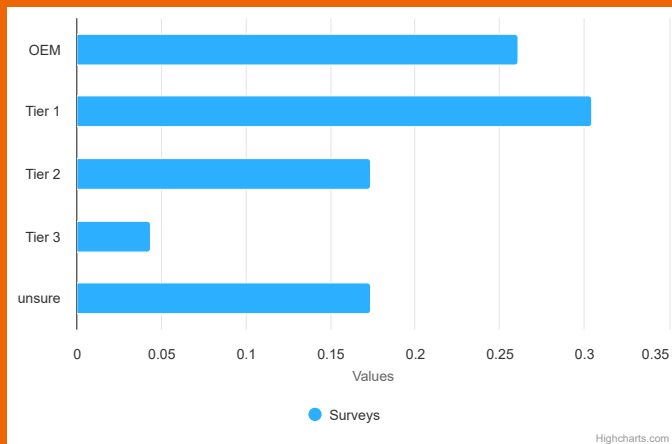
### Results

Automotive	26.09%
Software and IT	30.43%
Machinery and plant engineering	30.43%
Transportation and logistics	4.35%
Science	8.70%

### Free-texts

- Transportation and logistics
- Industry Automation

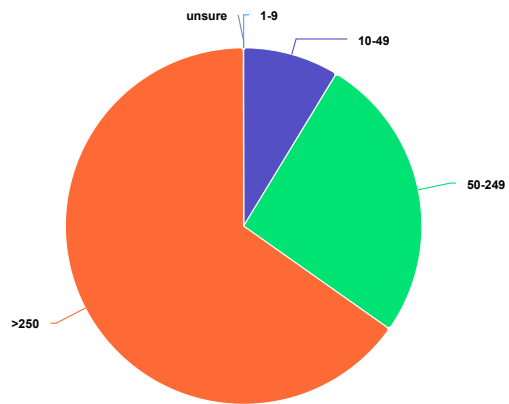
## Which supplier level of the supply pyramid would you assign your company to?



### Results

OEM	26.09%
Tier 1	30.43%
Tier 2	17.39%
Tier 3	4.35%
unsure	17.39%

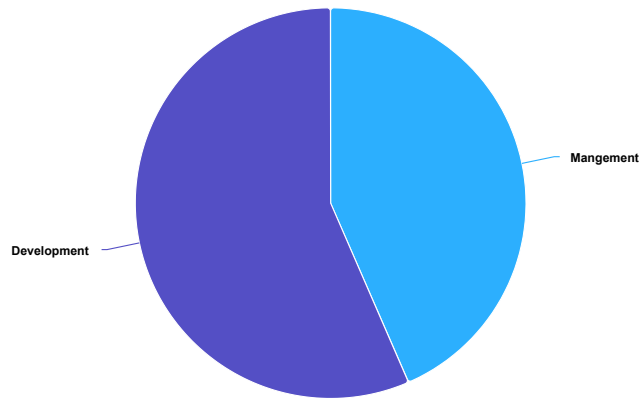
## How many employees does your company have?



#### Results

1-9	0.00%
10-49	8.70%
50-249	26.09%
>250	65.22%
unsure	0.00%

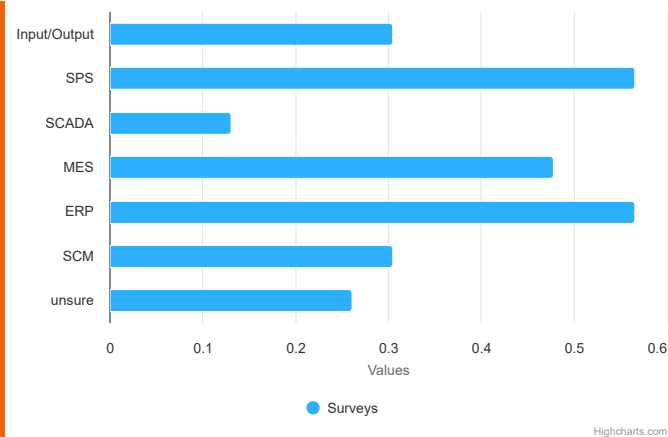
### What is your function in the company?



#### Results

Mangement	43.48%
Development	56.52%

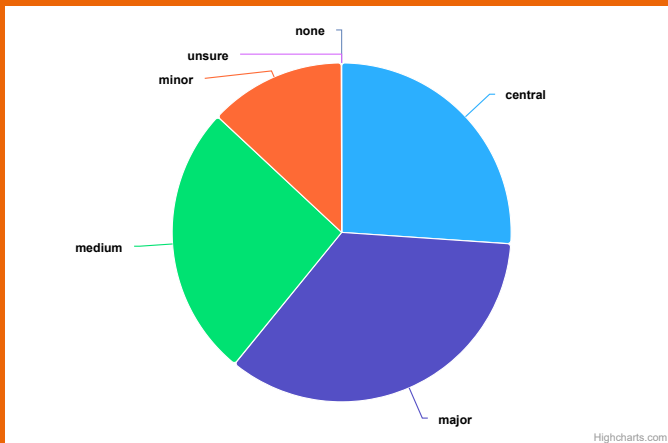
### Which automation systems do you personally work with?



#### Results

Input/Output	30.43%
SPS	56.52%
SCADA	13.04%
MES	47.83%
ERP	56.52%
SCM	30.43%
unsure	26.09%

### What role do environmental aspects and sustainability play in the development of your business strategy and technology investments? ↗

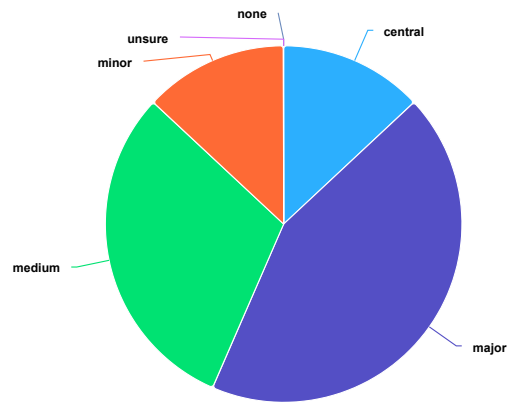


#### Results

central	26.09%
major	34.78%
medium	26.09%
minor	13.04%
none	0.00%
unsure	0.00%

#### Free-texts

### What role do environmental aspects and sustainability play in product development? ↗

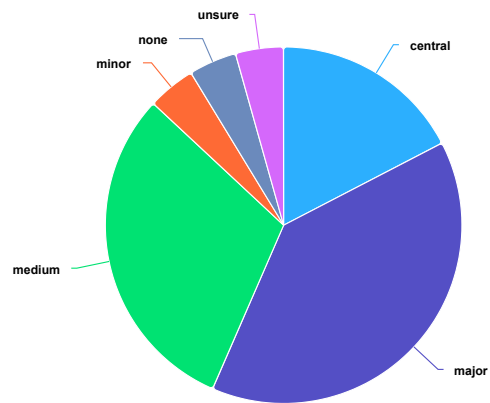


#### Results

central	13.04%
major	43.48%
medium	30.43%
minor	13.04%
none	0.00%
unsure	0.00%

#### Free-texts

### What role do environmental aspects and sustainability play in production?

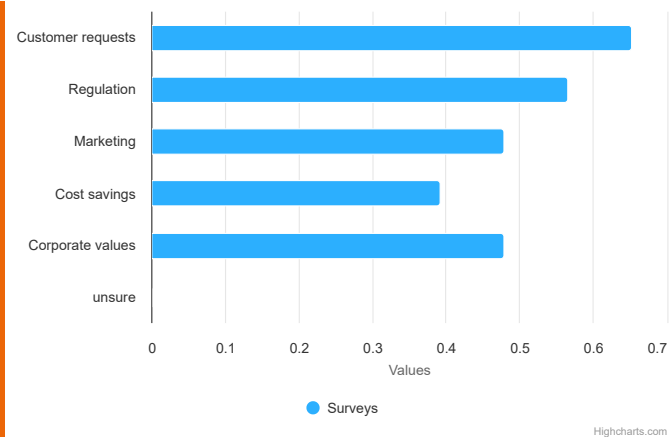


#### Results

central	17.39%
major	39.13%
medium	30.43%
minor	4.35%
none	4.35%
unsure	4.35%

#### Free-texts

### What are the main drivers for your company's sustainability efforts?



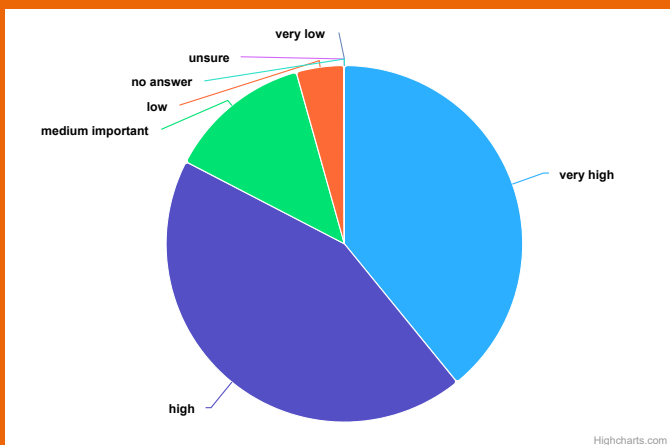
## Results

Customer requests	65.22%
Regulation	56.52%
Marketing	47.83%
Cost savings	39.13%
Corporate values	47.83%
unsure	0.00%

## Free-texts

How highly do you rate the relevance of the three dimensions of sustainability (economic, environmental, social) for your company?

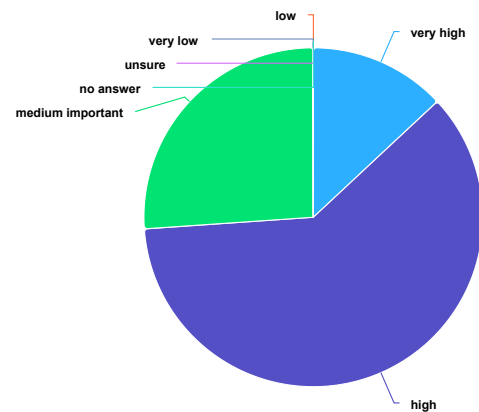
economic



## Results

very high	39.13%
high	43.48%
medium important	13.04%
low	4.35%
very low	0.00%
unsure	0.00%
no answer	0.00%

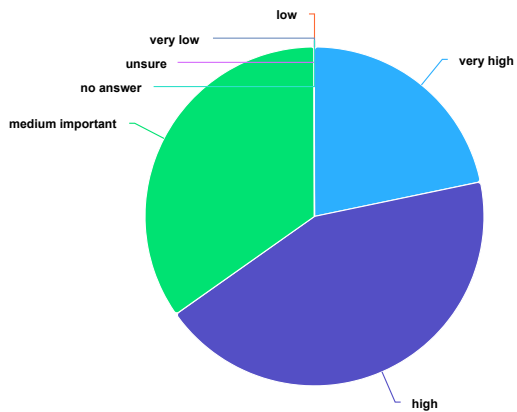
environmental



#### Results

very high	13.04%
high	60.87%
medium important	26.09%
low	0.00%
very low	0.00%
unsure	0.00%
no answer	0.00%

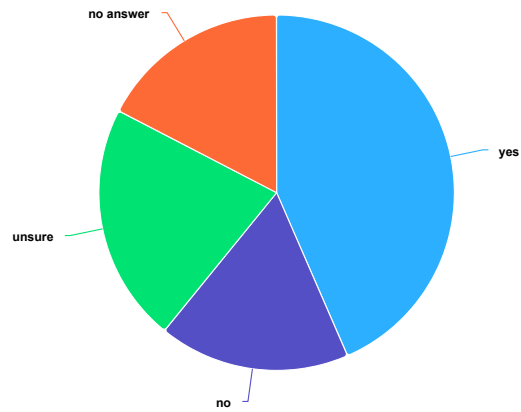
## social



#### Results

very high	21.74%
high	43.48%
medium important	34.78%
low	0.00%
very low	0.00%
unsure	0.00%
no answer	0.00%

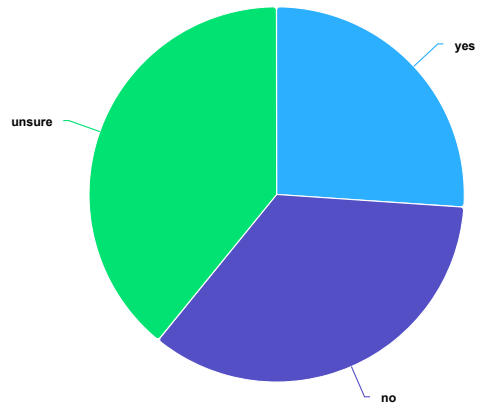
Have you ever encountered conflicts of interest between different sustainability aspects when implementing measures in your company?



#### Results

yes	43.48%
no	17.39%
unsure	21.74%
no answer	17.39%

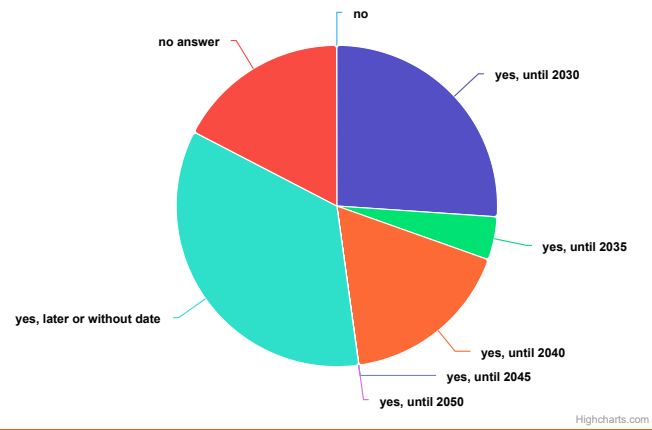
If so, is there a clear strategy for achieving an overall optimum in such cases?



#### Results

yes	26.09%
no	34.78%
unsure	39.13%

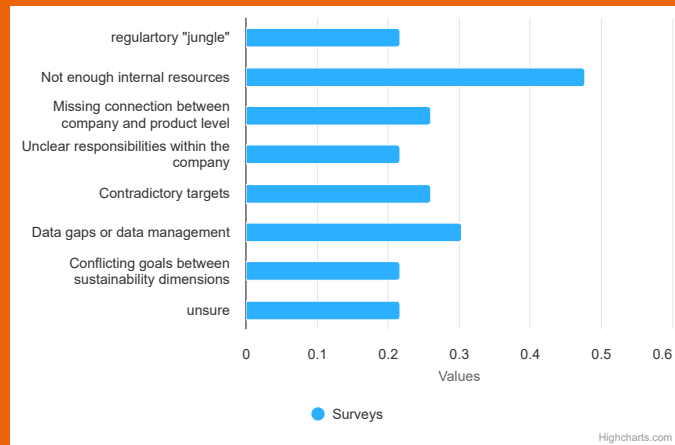
Is your company aiming for climate neutrality? If so, by when?



### Results

no	0.00%
yes, until 2030	26.09%
yes, until 2035	4.35%
yes, until 2040	17.39%
yes, until 2045	0.00%
yes, until 2050	0.00%
yes, later or without date	34.78%
no answer	17.39%

## What challenges do you face when implementing sustainability efforts in the company?



### Results

regularatory "jungle"	21.74%
Not enough internal resources	47.83%
Missing connection between company and product level	26.09%
Unclear responsibilities within the company	21.74%
Contradictory targets	26.09%
Data gaps or data management	30.43%
Conflicting goals between sustainability dimensions	21.74%
unsure	21.74%

## What challenges do you face when implementing sustainability efforts in the company?

### Free-texts

- Purchaisiing, IT Security
- - Costs (Development, Time)
- from ecomically point of view it is often not entrepreneurial because of bad turn of invest
- Data Management Digitalization

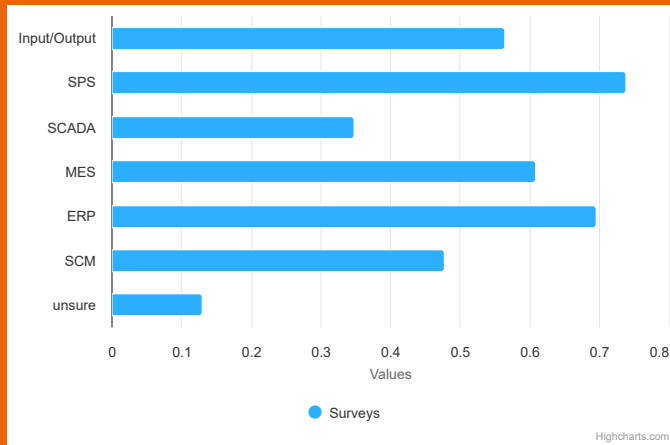


- The biggest problem is the cost btw. ROI of sustainable investments. The ROI has to be smaller then 4-7 years. Topics with longer ROI time are not / less interesting.

- Conflicts with product quality/specification

- Conflict with revenue and profit

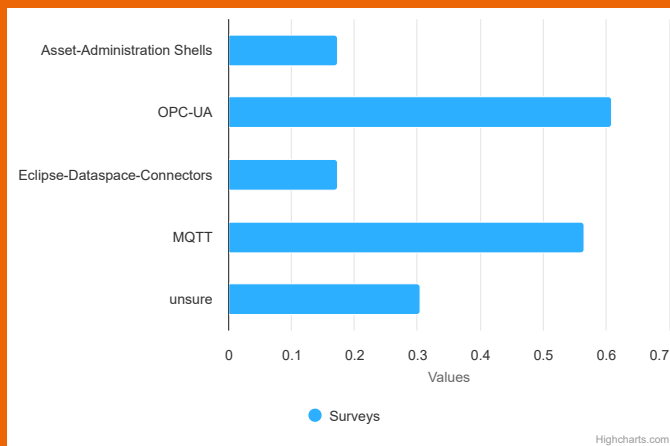
## What automation systems does your company use?



### Results

Input/Output	56.52%
SPS	73.91%
SCADA	34.78%
MES	60.87%
ERP	69.57%
SCM	47.83%
unsure	13.04%

## Which of the following technologies do you already use in your company?

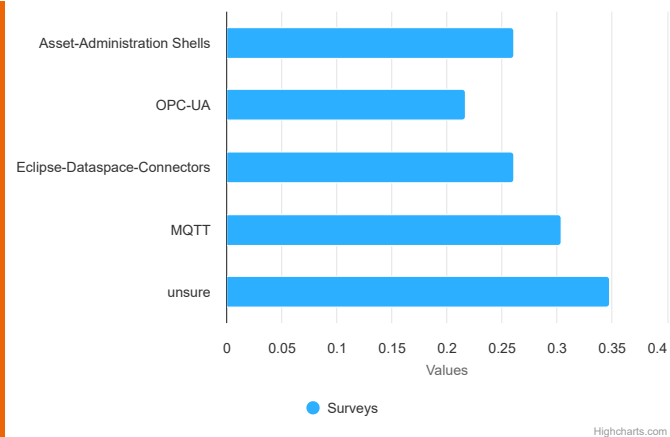


### Results

Asset-Administration Shells	17.39%
OPC-UA	60.87%
Eclipse-Dataspace-Connectors	17.39%
MQTT	56.52%
unsure	30.43%

### Free-texts

## Which of the following solutions do you plan to implement in your company in the next 2 years?



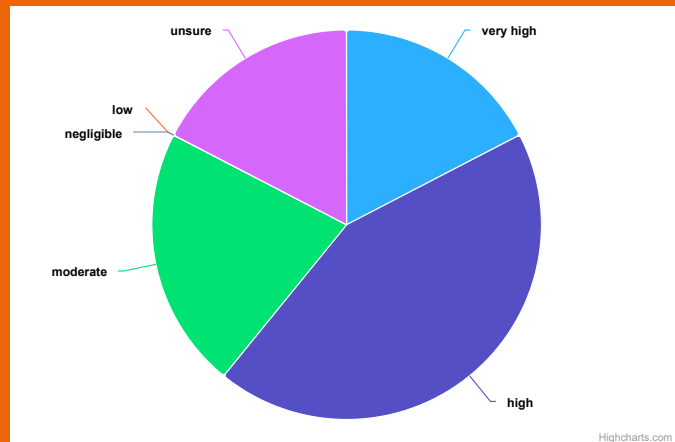
## Results

Asset-Administration Shells	26.09%
OPC-UA	21.74%
Eclipse-Dataspace-Connectors	26.09%
MQTT	30.43%
unsure	34.78%

## Free-texts

- KI

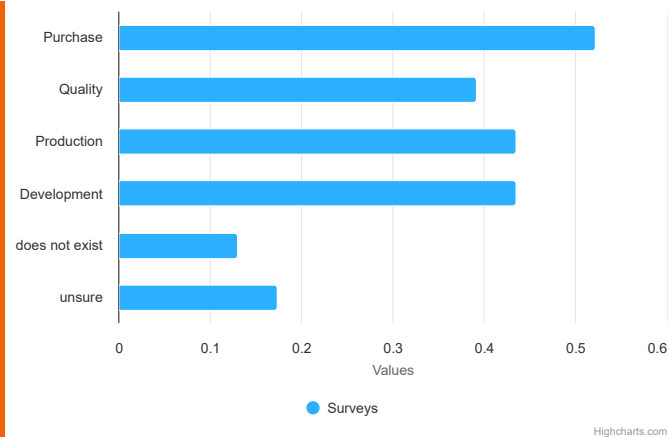
## What future relevance do you see for the asset administration shell?



## Results

very high	17.39%
high	43.48%
moderate	21.74%
low	0.00%
negligible	0.00%
unsure	17.39%

## Who is currently involved in supply chain management?

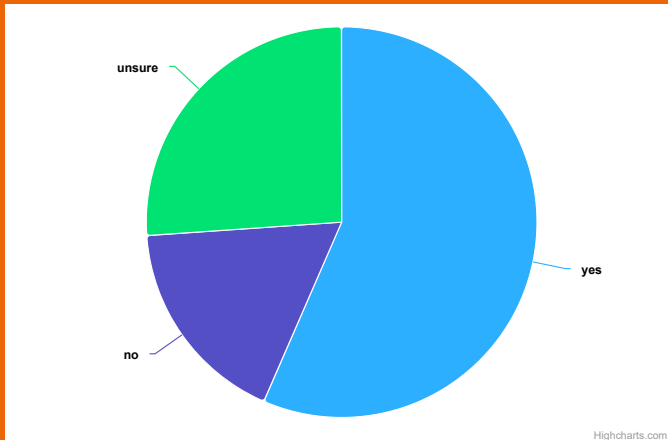


#### Results

Purchase	52.17%
Quality	39.13%
Production	43.48%
Development	43.48%
does not exist	13.04%
unsure	17.39%

#### Free-texts

### Do you use software to optimize and manage your SCM processes?



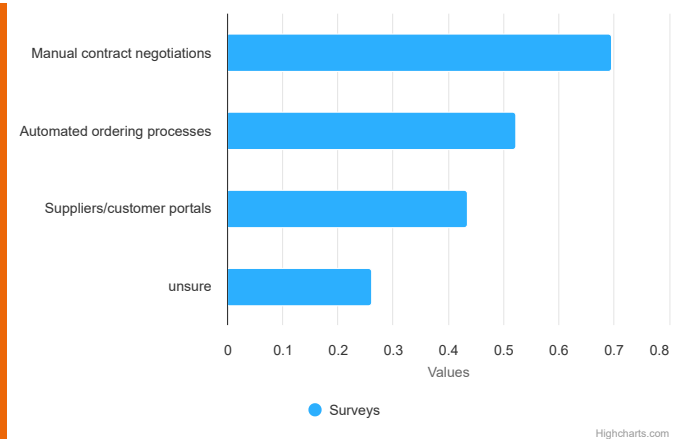
#### Results

yes	56.52%
no	17.39%
unsure	26.09%

#### Free-texts

- SAP, Jaggaer

### How are your suppliers and customers integrated into the value creation process?

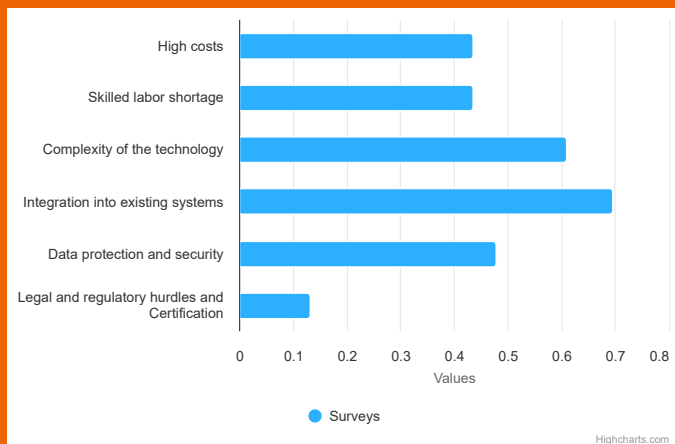


## Results

Manual contract negotiations	69.57%
Automated ordering processes	52.17%
Suppliers/customer portals	43.48%
unsure	26.09%

## Free-texts

# What obstacles do you see in the implementation of automation technologies in your company?



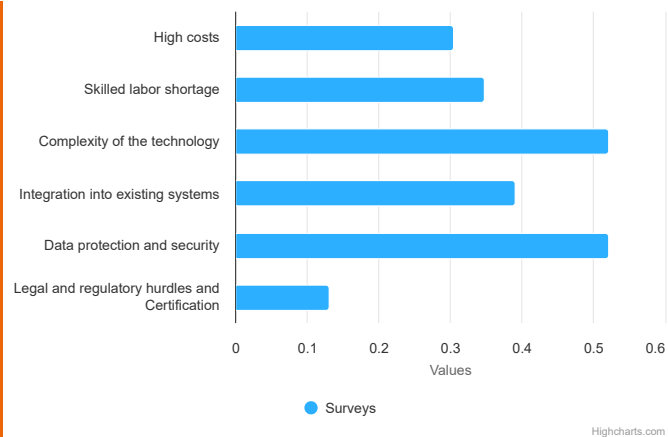
## Results

High costs	43.48%
Skilled labor shortage	43.48%
Complexity of the technology	60.87%
Integration into existing systems	69.57%
Data protection and security	47.83%
Legal and regulatory hurdles and Certification	13.04%

## Free-texts

- surplus of function is less than cost advantages

# What obstacles do you see in the use of automation technologies in your company?

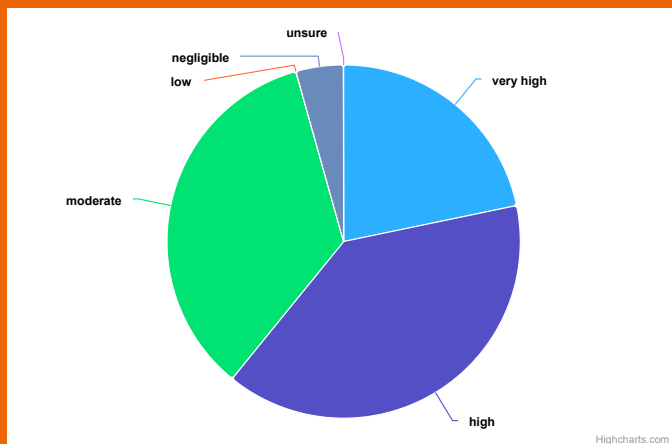


## Results

High costs	30.43%
Skilled labor shortage	34.78%
Complexity of the technology	52.17%
Integration into existing systems	39.13%
Data protection and security	52.17%
Legal and regulatory hurdles and Certification	13.04%

## Free-texts

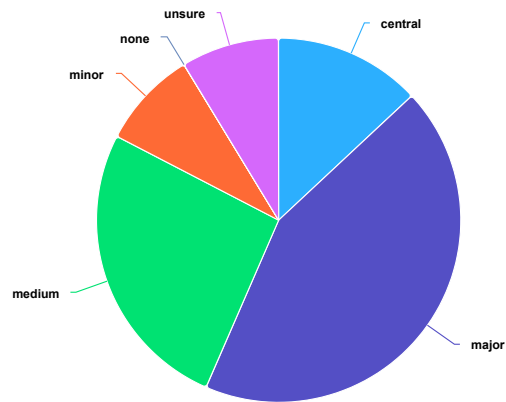
## How do you assess your company's current capacities in terms of digital transformation and innovation?



## Results

very high	21.74%
high	39.13%
moderate	34.78%
low	0.00%
negligible	4.35%
unsure	0.00%

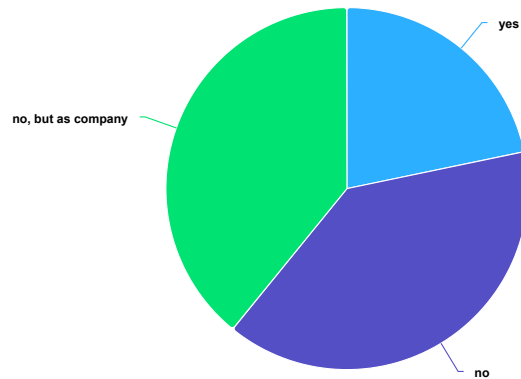
## What role do open source technologies play in your corporate strategy for digital innovation?



#### Results

central	13.04%
major	43.48%
medium	26.09%
minor	8.70%
none	0.00%
unsure	8.70%

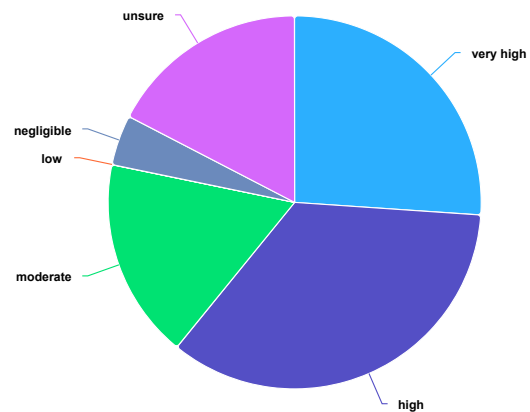
### Do you personally contribute to the development of open source technologies?



#### Results

yes	21.74%
no	39.13%
no, but as company	39.13%

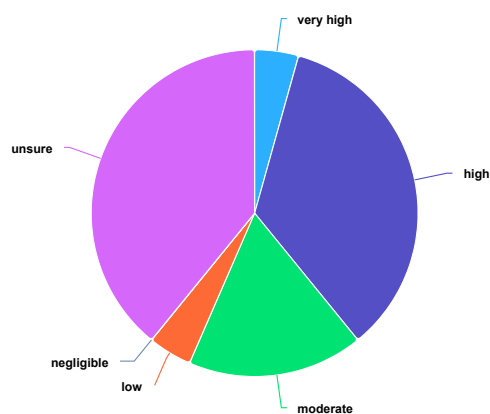
### To what extent have your supply chains been impacted by the coronavirus pandemic?



#### Results

very high	26.09%
high	34.78%
moderate	17.39%
low	0.00%
negligible	4.35%
unsure	17.39%

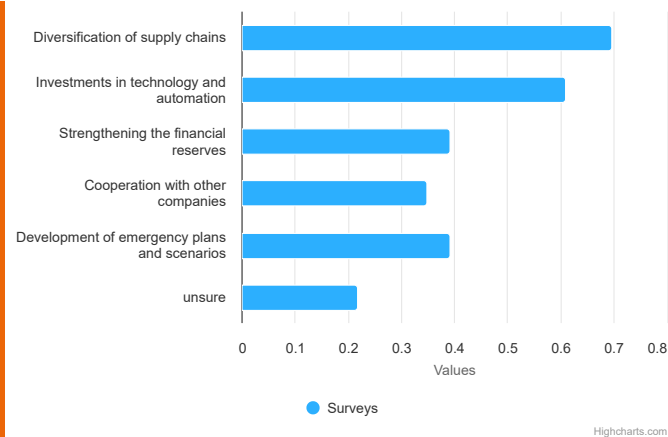
To what extent have you taken measures in the last 5 years to prepare your supply and value chains for uncertainty and volatility?



#### Results

very high	4.35%
high	34.78%
moderate	17.39%
low	4.35%
negligible	0.00%
unsure	39.13%

What strategies are you pursuing to increase your company's resilience to future crises?



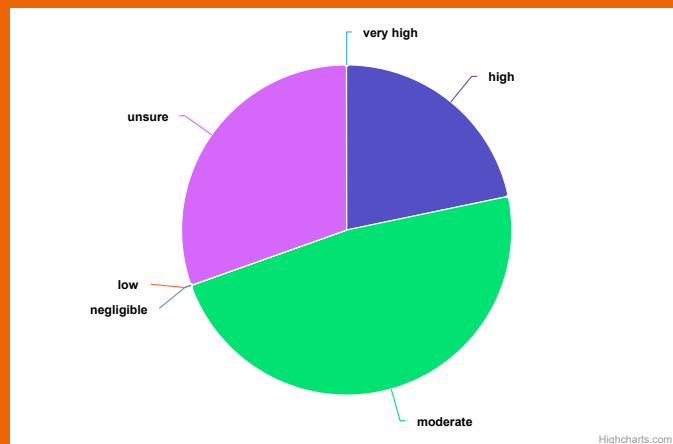
## Results

Diversification of supply chains	69.57%
Investments in technology and automation	60.87%
Strengthening the financial reserves	39.13%
Cooperation with other companies	34.78%
Development of emergency plans and scenarios	39.13%
unsure	21.74%

## Free-texts

- local supplier
- Built up stock

## How resilient do they generally consider your supply chains to be?

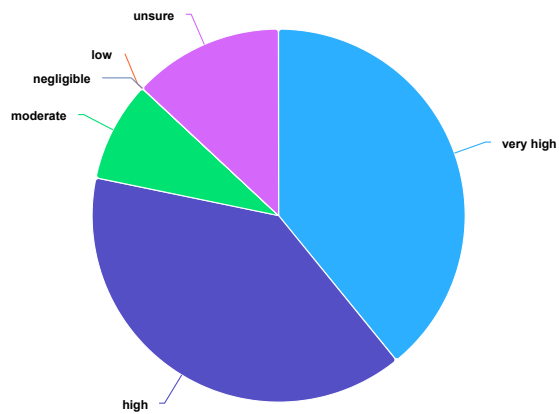


## Results

very high	0.00%
high	21.74%
moderate	47.83%
low	0.00%
negligible	0.00%
unsure	30.43%

## How important do you see this for the next 5 years?

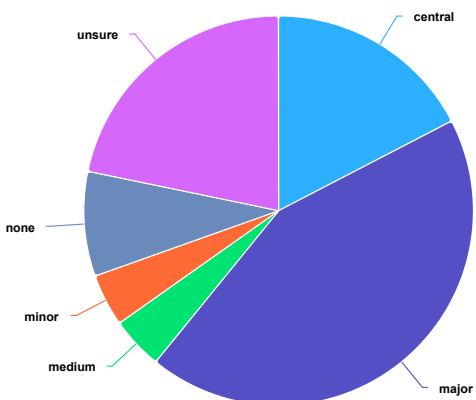




#### Results

very high	39.13%
high	39.13%
moderate	8.70%
low	0.00%
negligible	0.00%
unsure	13.04%

### What role does the criticality of raw materials play for your company?

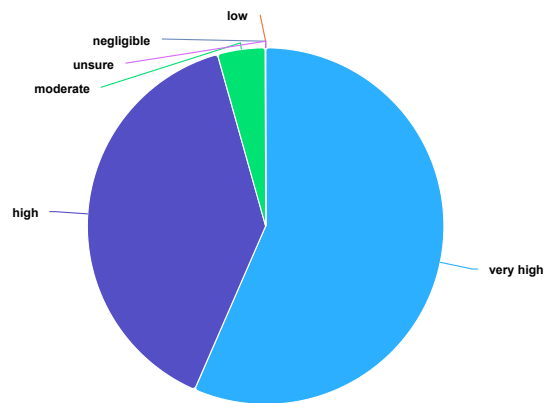


#### Results

central	17.39%
major	43.48%
medium	4.35%
minor	4.35%
none	8.70%
unsure	21.74%

#### Free-texts

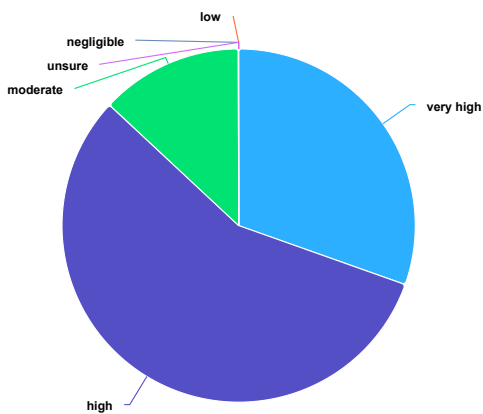
### With regard to cross-company communication, which of the following factors do you expect from your suppliers or customers? Security



### Results

very high	56.52%
high	39.13%
moderate	4.35%
low	0.00%
negligible	0.00%
unsure	0.00%

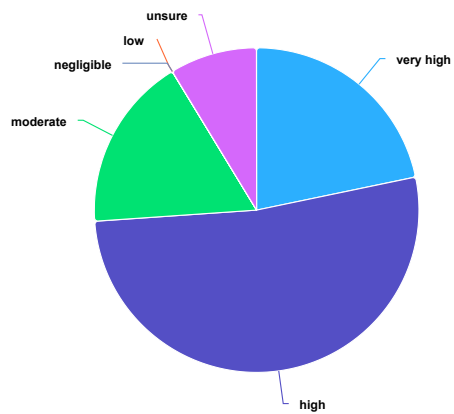
## Standardization



### Results

very high	30.43%
high	56.52%
moderate	13.04%
low	0.00%
negligible	0.00%
unsure	0.00%

## Regulated data access

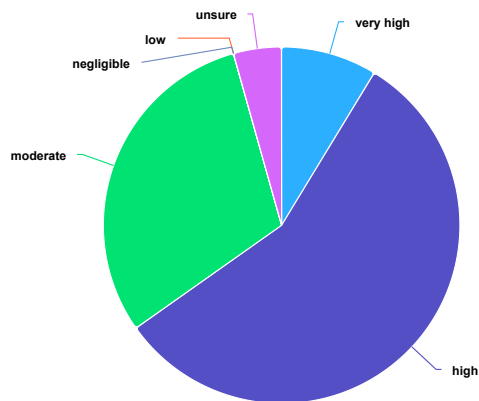


Highcharts.com

## Results

very high	21.74%
high	52.17%
moderate	17.39%
low	0.00%
negligible	0.00%
unsure	8.70%

## Interoperability



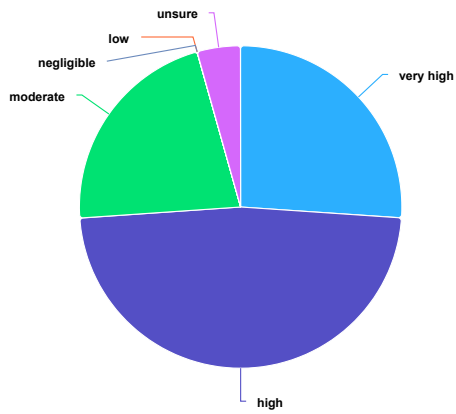
Highcharts.com

## Results

very high	8.70%
high	56.52%
moderate	30.43%
low	0.00%
negligible	0.00%
unsure	4.35%

## Transparency



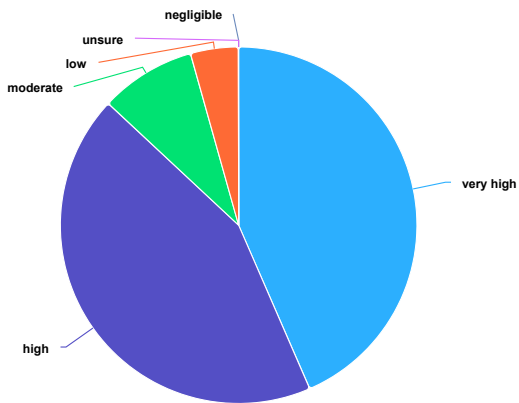


Highcharts.com

## Results

very high	26.09%
high	47.83%
moderate	21.74%
low	0.00%
negligible	0.00%
unsure	4.35%

## Compliance

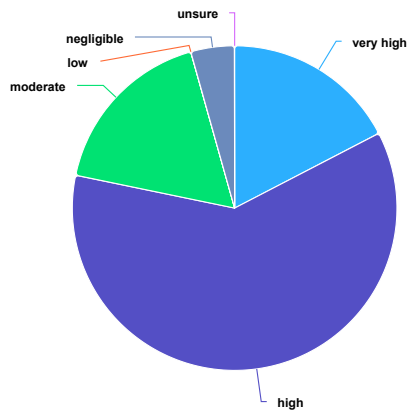


Highcharts.com

## Results

very high	43.48%
high	43.48%
moderate	8.70%
low	4.35%
negligible	0.00%
unsure	0.00%

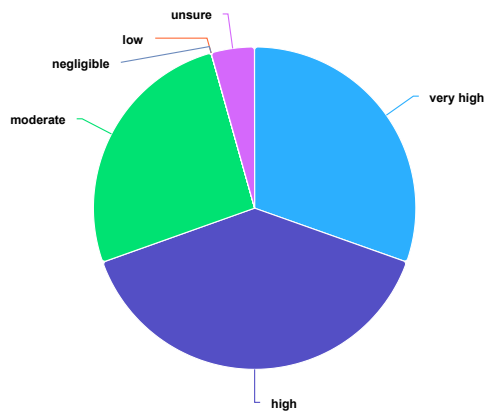
## Flexibility



#### Results

very high	17.39%
high	60.87%
moderate	17.39%
low	0.00%
negligible	4.35%
unsure	0.00%

### Technological compatibility of automation interfaces



#### Results

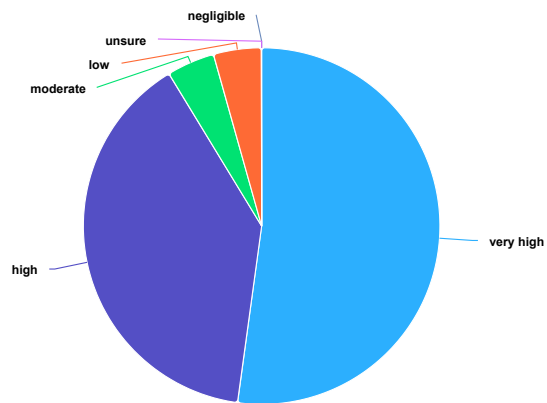
very high	30.43%
high	39.13%
moderate	26.09%
low	0.00%
negligible	0.00%
unsure	4.35%

### Further factors

#### Free-texts

- We provide the link to enable this points to our customers in Logistics
- Good prices

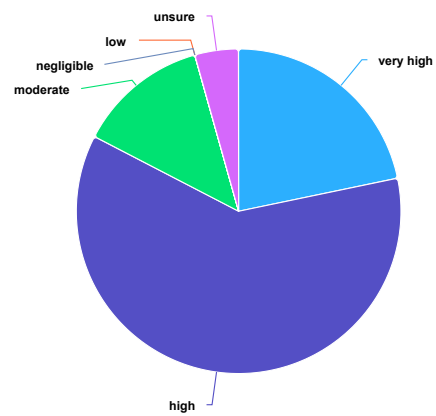
With regard to cross-company communication, how important is it to them to engage in the following points: Security



## Results

very high	52.17%
high	39.13%
moderate	4.35%
low	4.35%
negligible	0.00%
unsure	0.00%

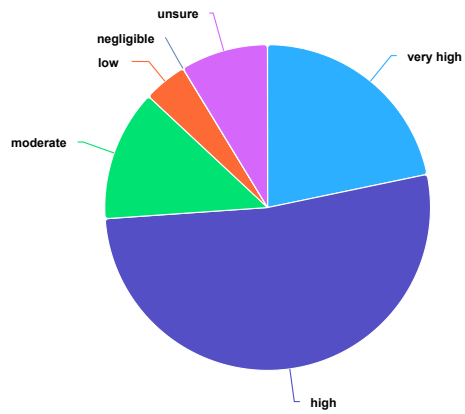
## Standardization



## Results

very high	21.74%
high	60.87%
moderate	13.04%
low	0.00%
negligible	0.00%
unsure	4.35%

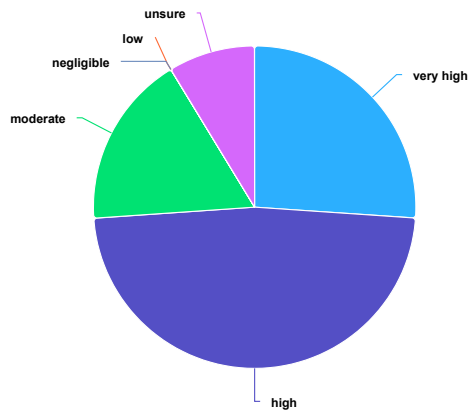
## Regulated data access



## Results

very high	21.74%
high	52.17%
moderate	13.04%
low	4.35%
negligible	0.00%
unsure	8.70%

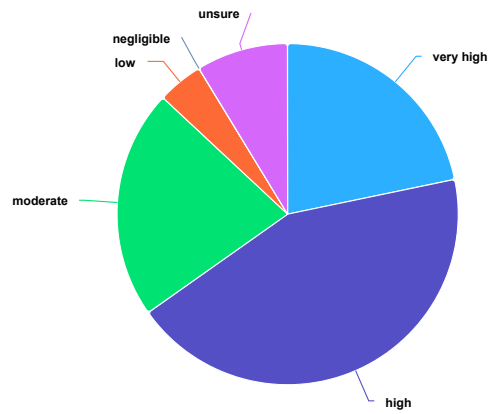
## Interoperability



## Results

very high	26.09%
high	47.83%
moderate	17.39%
low	0.00%
negligible	0.00%
unsure	8.70%

## Transparency

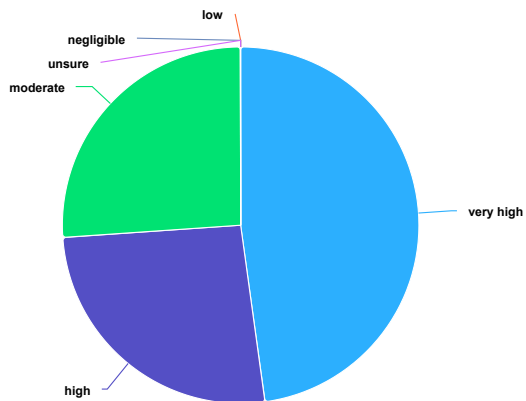


Highcharts.com

## Results

very high	21.74%
high	43.48%
moderate	21.74%
low	4.35%
negligible	0.00%
unsure	8.70%

## Compliance



Highcharts.com

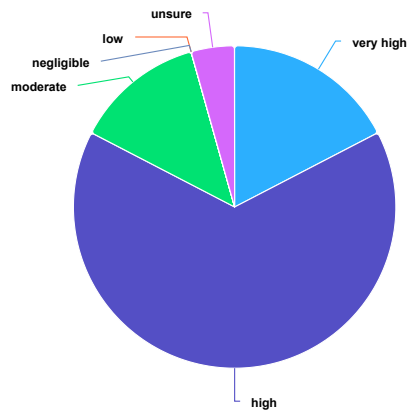
## Results

very high	47.83%
high	26.09%
moderate	26.09%
low	0.00%
negligible	0.00%
unsure	0.00%

## Flexibility



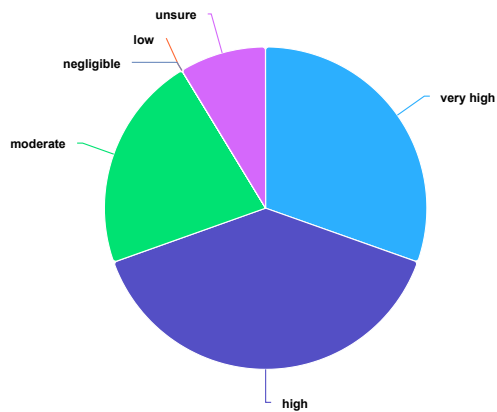




#### Results

very high	17.39%
high	65.22%
moderate	13.04%
low	0.00%
negligible	0.00%
unsure	4.35%

## Technological compatibility of automation interfaces



#### Results

very high	30.43%
high	39.13%
moderate	21.74%
low	0.00%
negligible	0.00%
unsure	8.70%

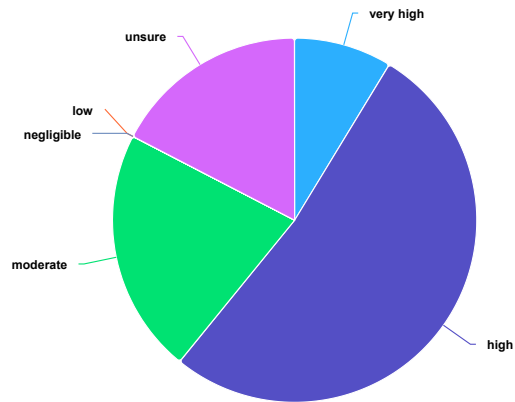
## Further factors

### Free-texts

- VDA5050 Standardization makes it easier to integrate mobile robots, but the ones not following the standards are chosen by the customer because they can do things the standard doesn't allow.

- good prices

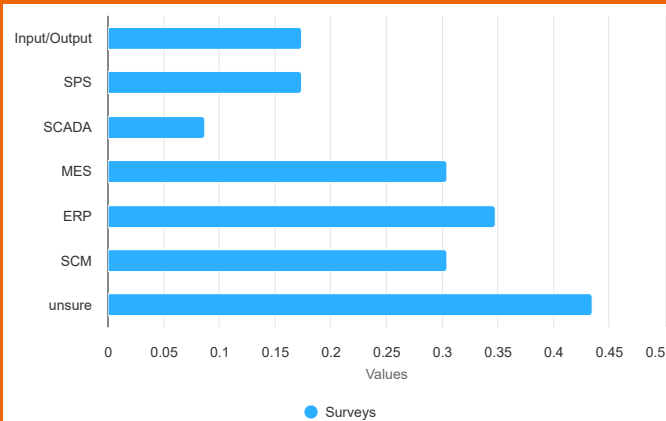
## How do you rate the potential of value networks compared to conventional global value chains?



#### Results

very high	8.70%
high	52.17%
moderate	21.74%
low	0.00%
negligible	0.00%
unsure	17.39%

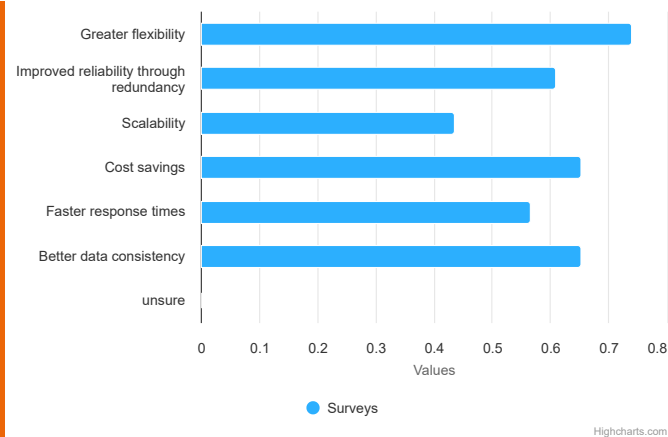
### What existing automation systems would you build value networks on?



#### Results

Input/Output	17.39%
SPS	17.39%
SCADA	8.70%
MES	30.43%
ERP	34.78%
SCM	30.43%
unsure	43.48%

### What would you expect from the use of a software-defined value network?



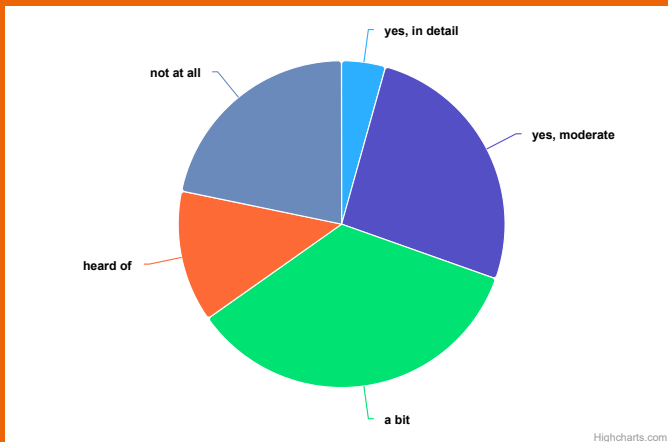
## Results

Greater flexibility	73.91%
Improved reliability through redundancy	60.87%
Scalability	43.48%
Cost savings	65.22%
Faster response times	56.52%
Better data consistency	65.22%
unsure	0.00%

## Free-texts

- high transparency
- transparency, accurate decision making

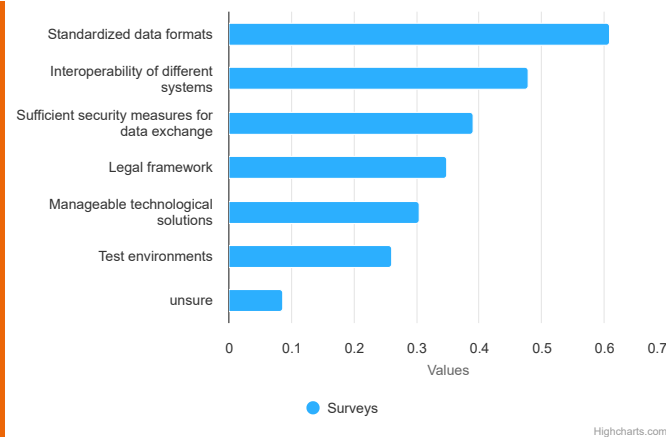
## Are you familiar with data rooms as a concept for cross-company information management?



## Results

yes, in detail	4.35%
yes, moderate	26.09%
a bit	34.78%
heard of	13.04%
not at all	21.74%

## In your opinion, what key factors are still missing for the successful implementation of automated value creation networks?



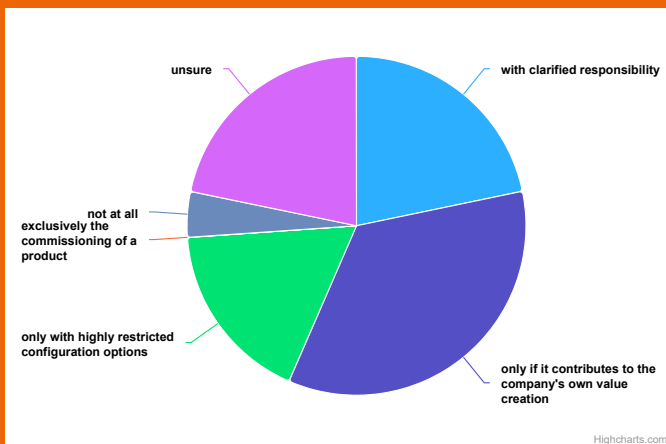
## Results

Standardized data formats	60.87%
Interoperability of different systems	47.83%
Sufficient security measures for data exchange	39.13%
Legal framework	34.78%
Manageable technological solutions	30.43%
Test environments	26.09%
unsure	8.70%

## Free-texts

- trust, clearness of benefits
- power to enforce a "western" standard.
- Needed Mindset

To what extent would you want a higher-level system to orchestrate your value creation processes and make data and services available to network partners, as long as it contributes to a comprehensive improvement in value creation?



## Results

with clarified responsibility	21.74%
only if it contributes to the company's own value creation	34.78%
only with highly restricted configuration options	17.39%
exclusively the commissioning of a product	0.00%
not at all	4.35%
unsure	21.74%

What challenges do you face when integrating new suppliers or introducing new products into your existing supply chain?

## Free-texts

- Quality, Security, availability
- High integration time
- n/a
- reliability automotive certifications necessary
- Setting up clear communication channels
- Complexity

## Do you have any further comments?

### Free-texts

- n/a

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- S-dVN may to be based Catena-X but on other technologies like MQTT

- Paradigm change in production/manufacturing (Architecture: Beyond Factory) by new KI based automation (Architecture: Embodied Intelligence) and new production processes (Architecture: primary forming proceses) and business architectures (Architecture: Platform Economy)

- the questionnaire seems to be at a very high level. More importance and deep dives in criterias for value stream generation would be helpful.