### The Role of Open Source in Germany - Results of the Open Source Monitor 2021

17.05.2022 Dr. Frank Termer

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#### **Bitkom Open Source Software Monitor 2021**

With the kind support of





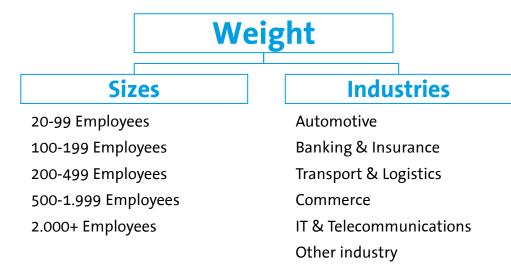
#### **Research Design**

	Economy	Public administration	
Population & Sample	Companies with more than 20 employees in Germany (n=1,152)	Organisations with more than 20 employees in Germany (n=100)	
Competitions	Disproportionately layered random sample		
Target group	Responsible for the topic of open source software in the company / organization, alternatively: responsible for the topic of software use or software development		
Survey period	24.05. to 23.07.2021	21.06. to 30.07.2021	
Methodology	Computer-aided, oral, telephone survey (CATI)	Computer-aided, oral, telephone survey (CATI)	
Weight	The respondents' statements were weighted so that the results give a representative picture of companies with 20 or more employees (in the respective sector) by industry and size classes	no weighting	
Statistical fault tolerance	+/- 3 Percentage points		



#### Sample and representativeness: Economy

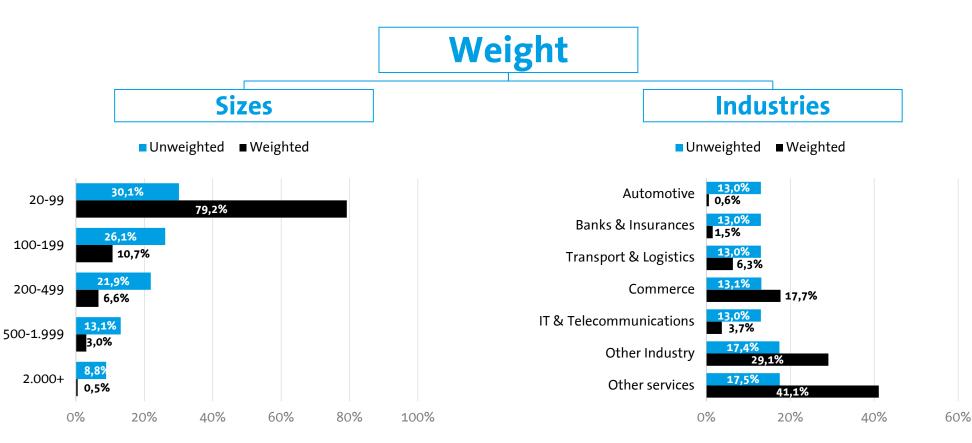
- By stratifying the random sample, it was ensured that companies from the different industries and size classes are represented in sufficient numbers for statistical evaluations.
- The respondents' statements were weighted so that the results give a representative picture for all companies in Germany with 20 or more employees according to industry groups and size classes.
- As a result, the assessments of smaller companies are given comparatively high weight in the overall results due to their high share of the total number of enterprises.



Other services



#### Sample and representativeness: Economy





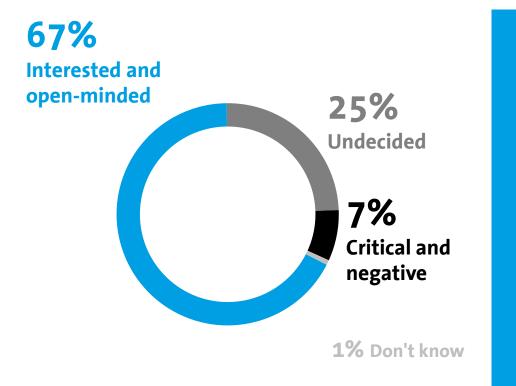
5 Basis: All companies with 20 or more employees (n=1,152) | Source: Bitkom Research

### **Attitude to OSS**



#### Attitude towards OSS – 20+ employees in total

How does your company generally feel about OSS?



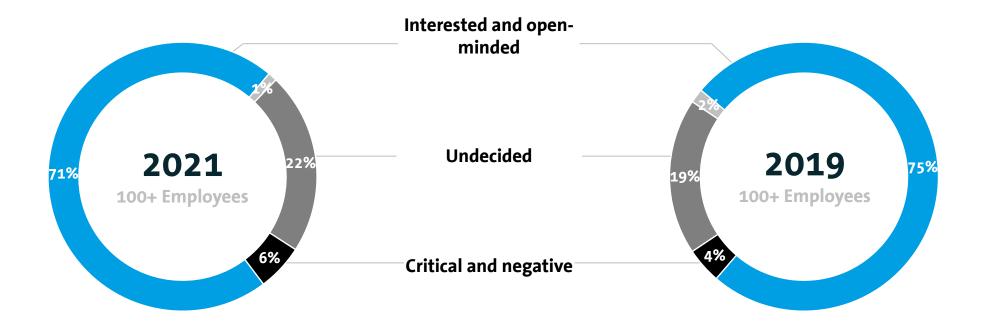
"By open source software we mean software, such as program modules, programming tools or libraries, whose source codes are disclosed and whose license allows the licensee to freely execute the software, analyze it, adapt it to one's own needs and pass it on in both unchanged and modified form. In addition to the openly accessible source code, this also requires freedom from license fees."

*In the following we only use the abbreviation OSS for Open Source Software.* 



#### Attitude towards OSS – 100+ employees year-on-year

How does your company generally feel about OSS?



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#### Advantages OSS – 20+ employees in total

From your point of view, what is the biggest advantage that speaks for the use of OSS in your company?

Cost	Cost savings	24%
Openness	Access to source code	14%
	Simple change of provider	8%
	Easy adaptation to own needs	5%
	Wide choice of OSS components	<b>5% 41%</b>
	Better compatibility between tools and components	4%
	Open standards and interoperability	3%
	Large number of OSS providers with commercial support	2%
IT Security	High security through timely updates	7%
	High stability, low susceptibility to errors	2%
Cooperation & Innovation	Broad and active community for knowledge exchange	4%
	Better competitive opportunities	3% - 8%
	Promotion of innovations	1%
Image	Good reputation of OSS	1%
	Attractive IT workplace, motivation for employees	0%
No advantage	There is no advantage	14%



9 Basis: Alle Unternehmen ab 20 Beschäftigten (2021: n=1.152) | Offene Abfrage, nur eine Antwort möglich | Quelle: Bitkom Research

#### **Disadvantages OSS – 20+ employees in total**

From your point of view, what is the biggest disadvantage that speaks against the use of OSS in your company?

	Lack of OSS specialists	14	1%
Staff	High training and familiarisation costs	10%	249/
	Lack of training offers	6%	<b>≻ 34%</b>
	Lack of acceptance in the company	4%	
	Unclear warranty situation or supplier liability	10%	
Uncertainty	Legal uncertainties regarding licensing obligations	5%	<b>≻ 18%</b>
	Uncertain future of OSS	3%	
	Security aspects	7%	
IT Security	Low stability, high susceptibility to errors	2%	<b>9%</b>
Supply	Lack of certification for OSS	0%	
	Too much choice of OSS	7%	
	Lack of commercial support	7%	<b>~ 20%</b>
	Lack of interfaces	5%	2070
	Lack of OSS solutions for use cases	3%	
Cost	Effort required to switch to OSS	4%	
Image	Bad reputation of OSS	2%	
No disadvantage	There is no disadvantage	9%	

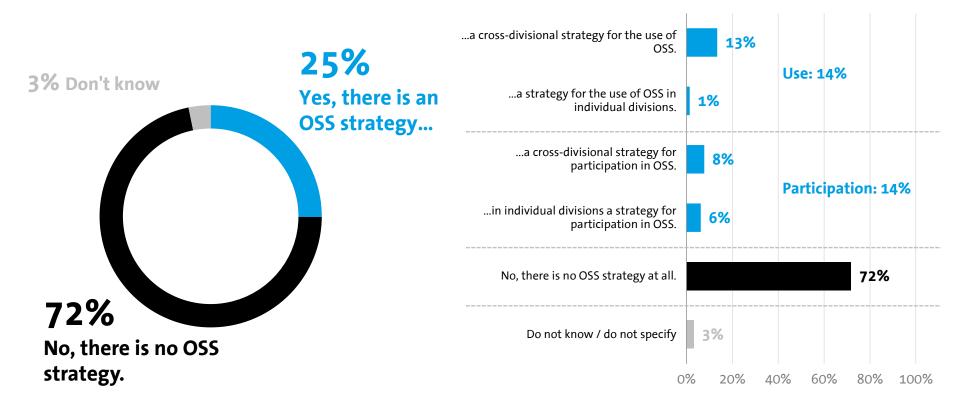


# **OSS Strategy**



#### OSS strategy – 20+ employees in total

Does your company have a strategy for using or participating in OSS?

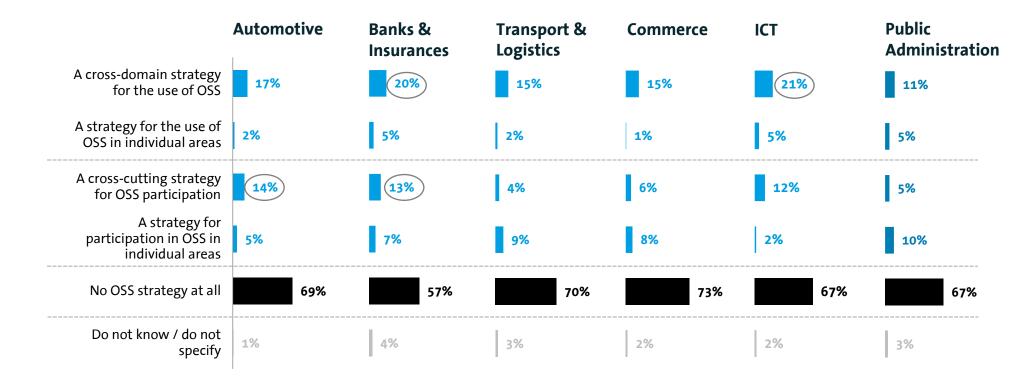




12 Base: All companies with 20 or more employees (2021: n=1,152) | Multiple answers possible | Source: Bitkom Research

#### **OSS Strategy – 20+ Employees Industries**

Is there a strategy in your company / organization for using or participating in OSS?



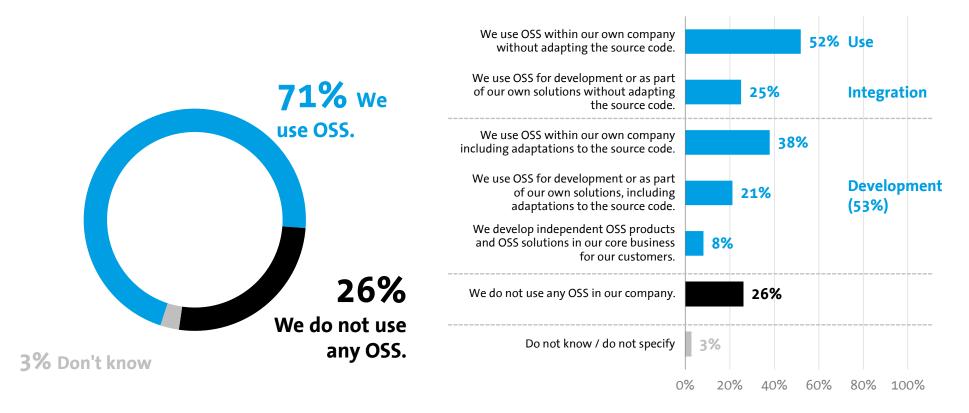
13 Basis: All companies with 20 or more employees (2021: n=1,152) + all organisations with 20 or more employees (2021: n=100) | Multiple answers possible | Source: Bitkom Research





#### OSS Use - 20+ employees in total

Which of the following statements apply to the use of OSS in your company?

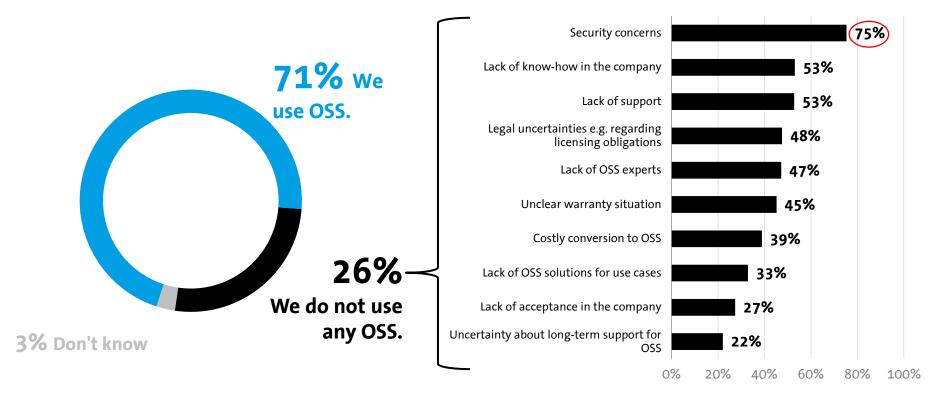




#### **Obstacles OSS use – 20+ employees in total**

Which of the following statements apply to the use of OSS in your company?

For what reasons do you not use any OSS in your company??





16 Base left: All companies with 20 or more employees (2021: n=1,152) | Base right: Companies with 20 or more employees who do not use any OSS in their company (2021: n=301) | Multiple answers possible | Source: Bitkom Research

# **OSS Application – Security Check**



#### Security check OSS – 20+ employees in total

What approach do you take in your company when testing for the security of the OSS components you use?

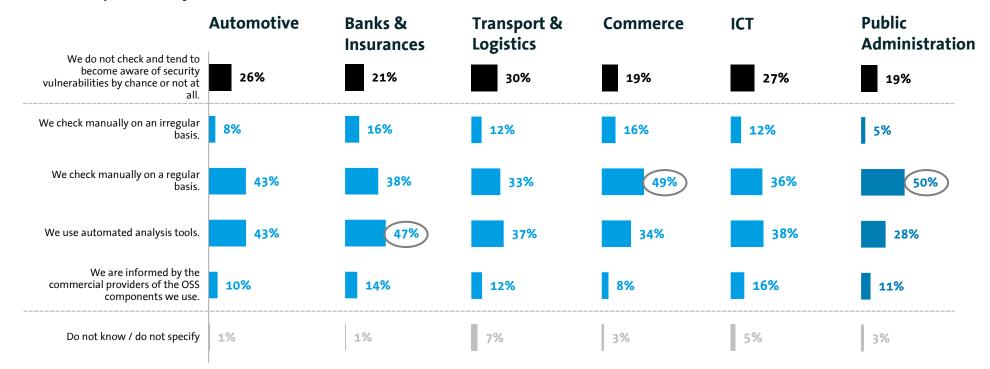




**18** Basis: Companies with 20 or more employees that use or integrate or (further) develop OSS (2021: n=820) | Deviations of 100% are | due to rounding Multiple answers possible | Source: Bitkom Research

#### Security audit OSS – 20+ employees industries

What approach do you follow in your company / organization when checking for the security of the OSS components you use?



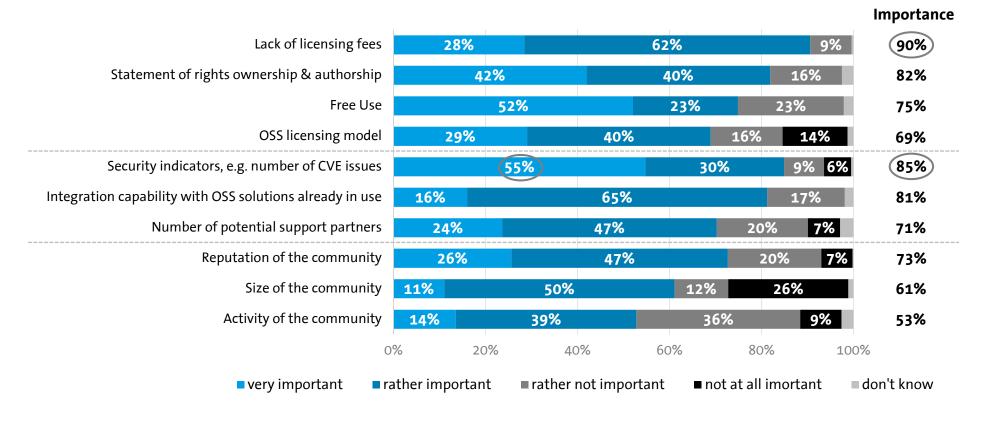
Basis: Companies with 20 or more employees that use or integrate or (further) develop OSS (2021: n=820) + all organizations with 20 or more employees that use or integrate or (further) develop OSS (2021: n=64) | Multiple answers possible | Source: Bitkom Research

### **OSS Application – Selection Criteria**



#### Selection of OSS projects – 20+ employees in total

How important are the following criteria when selecting OSS projects in your company?



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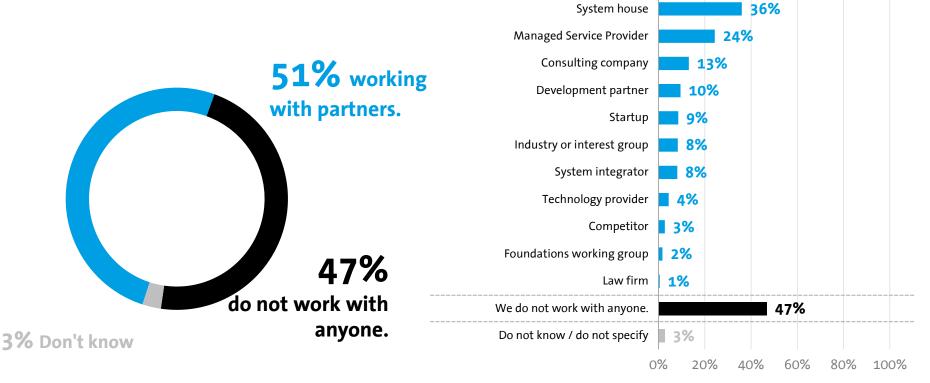
21 Basis: Companies with 20 or more employees that use or integrate or (further) develop OSS (2021: n=820) | Deviations of 100% are | due to rounding Source: Bitkom Research

# **OSS Deployment – Collaboration**



#### **Collaboration OSS deployment – 20+ employees in total**

With which of the following partners does your company work conceptually and / or implementing within the framework of OSS?

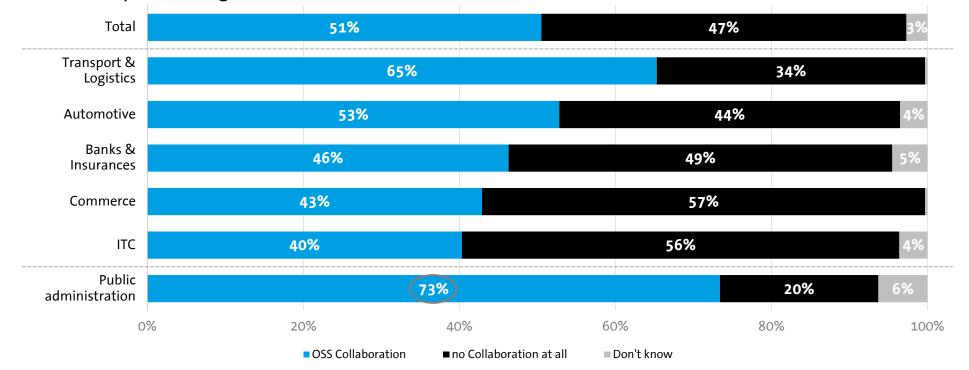




23 Basis: Companies with 20 or more employees that use or integrate or (further) develop OSS (2021: n=820) | Deviations of 100% are | due to rounding Multiple answers possible | Source: Bitkom Research

#### **Collaboration OSS deployment – 20+ employees industries**

With which of the following partners does your company / organization work together conceptually and / or implementing within the framework of OSS?



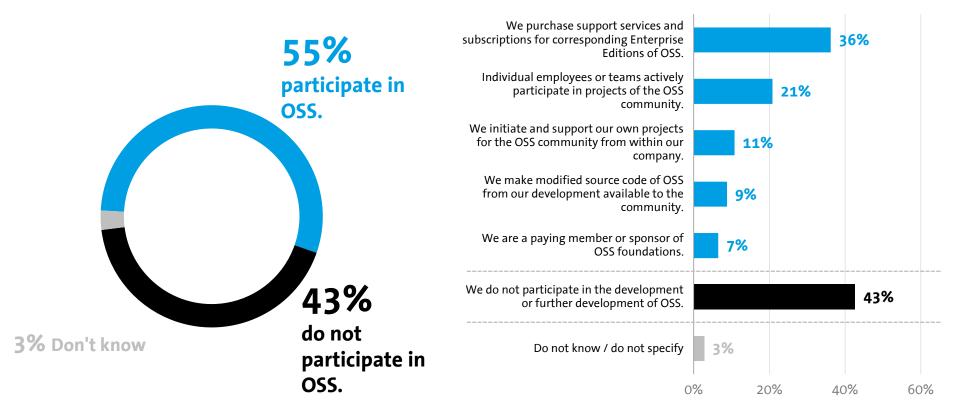
24 Basis: Companies with 20 or more employees that use or integrate or (further) develop OSS (2021: n=820) + all organizations with 20 or more employees that us or integrate or (further) develop OSS (2021: n=820) + all organizations with 20 or more employees that us or integrate or (further) develop OSS (2021: n=64) | Deviations of 100% are | due to rounding Source: Bitkom Research

### **OSS Participation**



#### Participation OSS – 20+ employees in total

To what extent does your company participate in the development or further development of OSS?

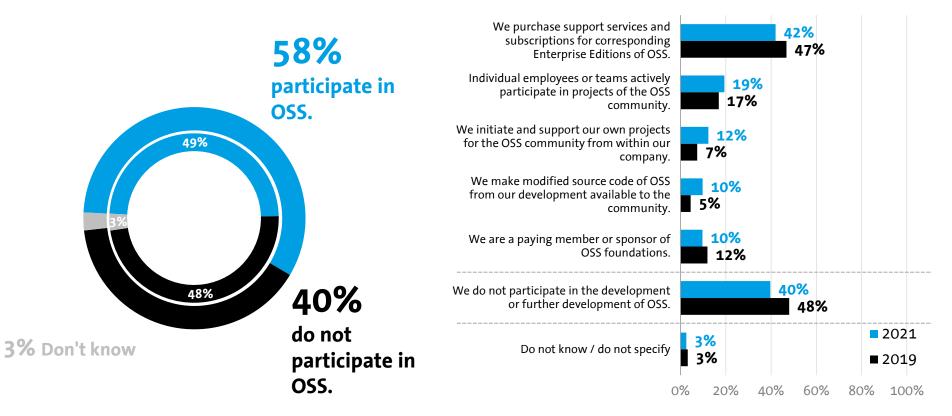




26 Base: All companies with 20 or more employees (2021: n=1,152) | Deviations of 100% are | due to rounding Multiple answers possible | Source: Bitkom Research

#### Participation OSS – year-on-year comparison 100+ employees total

To what extent does your company participate in the development or further development of OSS?





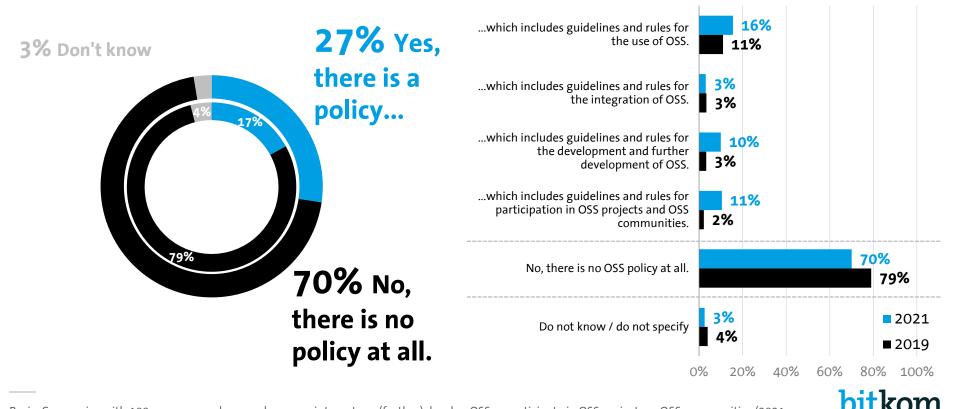
27 Base: All companies with 100 or more employees (2021: n=805 | 2019: n=804) | Deviations of 100% are | due to rounding Multiple answers possible | Source: Bitkom Research

# OSS Compliance – OSS-Policy



#### **OSS Policy – Year-on-year comparison 100+ employees total**

Does your company have an OSS policy, i.e. a document in which guidelines and rules for dealing with OSS in your company are written down?



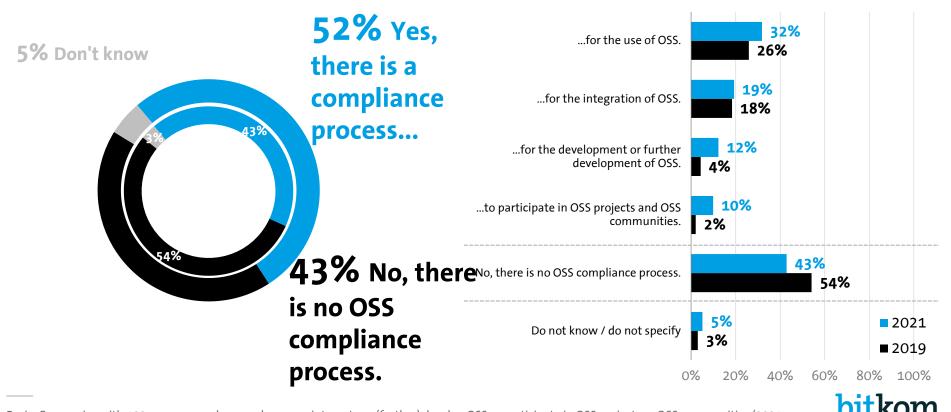
29 Basis: Companies with 100 or more employees who use or integrate or (further) develop OSS or participate in OSS projects or OSS communities (2021: n=187 | 2019: n=570) | Multiple answers possible | Source: Bitkom Research

### **OSS Compliance – Compliance Process**



#### **OSS Compliance Process – Year-on-year comparison 100+ employees total**

Does your company have a written compliance process for dealing with OSS? By compliance process, we mean a standardized approach to dealing with OSS.



Basis: Companies with 100 or more employees who use or integrate or (further) develop OSS or participate in OSS projects or OSS communities (2021: n=187 | 2019: n=570) | Multiple answers possible | Source: Bitkom Research

### **OSS Compliance – Compliance** Actions



#### **Compliance actions I – 20+ employees in total**

Which of the following compliance measures and instruments for the **use or integration** of OSS are used in your company?



33 Basis: Companies with 20 or more employees that use or integrate OSS (2021: n=669) | Deviations of 100% are | due to rounding Multiple answers possible | Source: Bitkom Research

#### **Compliance actions I – 20+ employees in total**

Which of the following compliance measures and instruments are used in your company for **participation** in OSS projects or for the (further) development of OSS?



Basis: Companies with 20 or more employees who use or integrate OSS with changes to the source code or (further) develop or participate in OSS projects

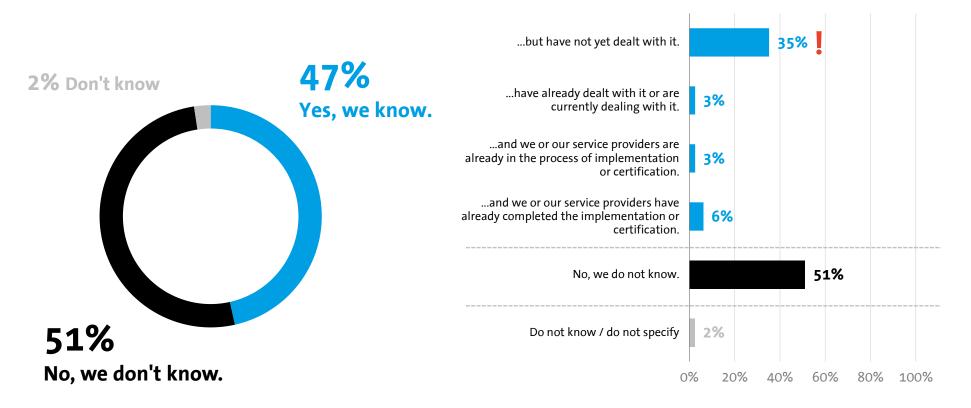
34 or OSS communities (2021: n=687) | Deviations of 100% are | due to rounding Multiple answers possible | Source: Bitkom Research

### **OpenChain Standard ISO 5230**



#### Awareness openChain standard – 20+ employees total

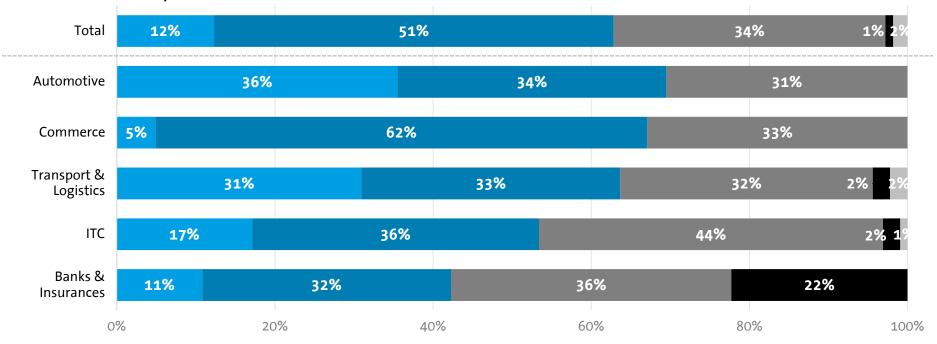
Do you know the OpenChain standard for OSS compliance or ISO 5230?





# Added Value OpenChain Standard – 20+ employees Industries

How do you assess the added value of the OpenChain standard for OSS compliance or ISO 5230 to increase OSS compliance??



■ Very high added value ■ Rather high added value ■ Rather low added value ■ No added value at all ■ Do not know / do not specify

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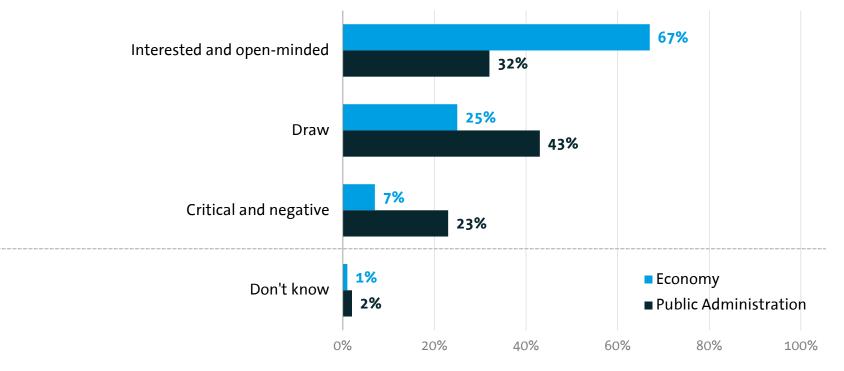
37 Base: Companies with 20 or more employees who have already dealt with the OpenChain standard or .ISO 5230 (2021: n=92) | Deviations of 100 percent are | due to rounding Source: Bitkom Research

# **Public Administration**



# Attitude towards open source software in public administration

How does your organization / company generally feel about OSS?



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**39** Basis of public administration: All public administration organisations with 20 or more employees (2021: n=100) | Economy base: All companies with 20 or more employees (2021: n=1,152) | Source: Bitkom Research

## **Advantages OSS – Economy vs. Public Administration**

From your point of view, what is the biggest advantage that speaks for the use of OSS in your company?

J 1	, 00 0	
Cost	Cost savings	14%
	Access to source code	7%
Openess	Simple change of provider	8%
	Easy adaptation to own needs	5%
	Wide choice of OSS components	5% (11%)
	Better compatibility between tools and components	4% 7%
	Open standards and interoperability	2%
IT C	Large number of OSS providers with commercial support	
	High security through timely updates	3% 7%
IT Security Cooperation & Innovation	High stability, low susceptibility to errors	2% 5%
	Broad and active community for knowledge exchange	3%
	Better competitive opportunities	3%
	Promotion of innovations	1%
	Good reputation of OSS	3%
Image	Attractive IT workplace, motivation for employees	©% ■ 1% ■ Economy
No advantage	There is no advantage	14% ■ Public Administration
9		



40 Basis: All companies with 20 or more employees (2021: n=1,152) + all organisations with 20 or more employees (2021: n=100) | Open query, only one answer possible | Source: Bitkom Research

# **Disadvantages OSS – Economy vs. Public Administration**

From your point of view, what is the biggest disadvantage that speaks against the use of OSS in your company?

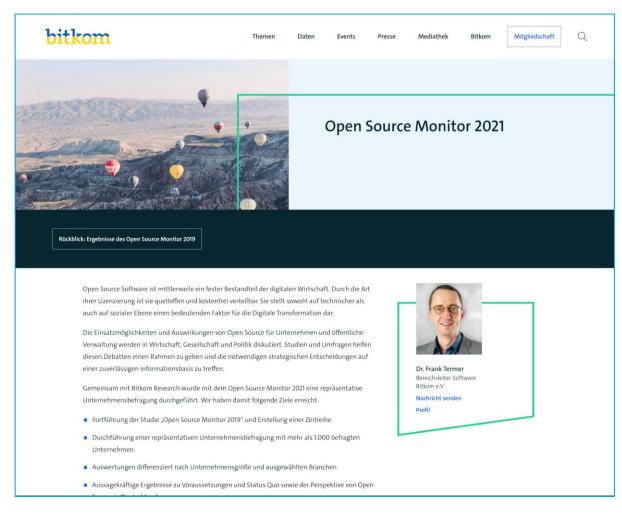
	Lack of OSS specialists	12%14%	
Staff	High training and familiarisation costs	3%	
	Lack of training offers	<u>6%</u> 9%	
	Lack of acceptance in the company	4% 7%	
Insecurity	Unclear warranty situation or supplier liability	8% <sup>10%</sup>	
	Legal uncertainties regarding licensing obligations	5% 8%	
	Uncertain future of OSS	3%	
	Security aspects	<u>7%</u> 9%	
IT Security	Low stability, high susceptibility to errors	0% 2%	
	Lack of certification for OSS	<u>0%</u> 5%	
Cumply	Too much choice of OSS	2% 7%	
	Lack of commercial support	67%	
Supply	Lack of interfaces	<b>1%</b>	
	Lack of OSS solutions for use cases		
Cost	Effort required to switch to OSS	<mark>4%</mark> 6%	
Image	Bad reputation of OSS		Economy
No disadvantage	There is no disadvantage	9% 15%	■ Public Administration

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41 Basis All companies with 20 or more employees (2021: n=1,152) + all organisations with 20 or more employees (2021: n=100) | Open query, only one answer possible | Source: Bitkom Research

# And many more insights...





https://www.bitkom.org/opensourcemonitor



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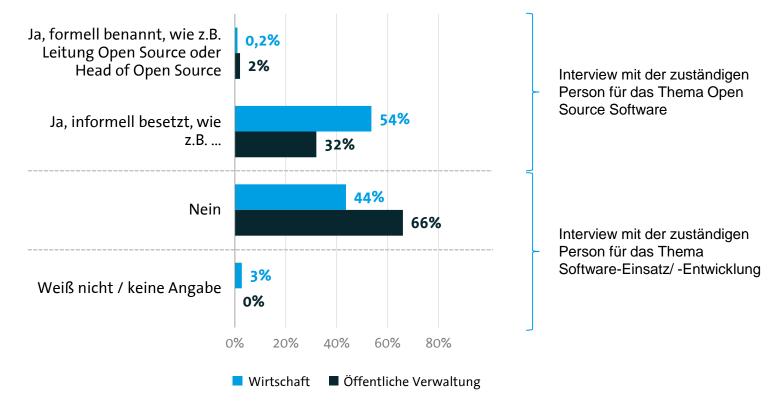






# Übersicht der Funktionen der Befragten – Zuständigkeit

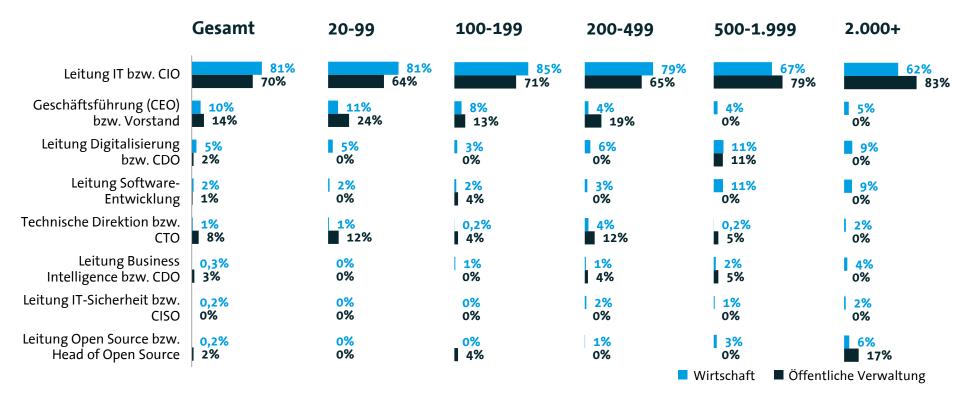
Gibt es in Ihrem Unternehmen eine Person, die für das Thema Open Source Software zuständig ist?





# Übersicht der Funktionen der Befragten nach Größenklasse

Welche Funktion bekleiden Sie innerhalb Ihres Unternehmens / Ihrer Organisation?

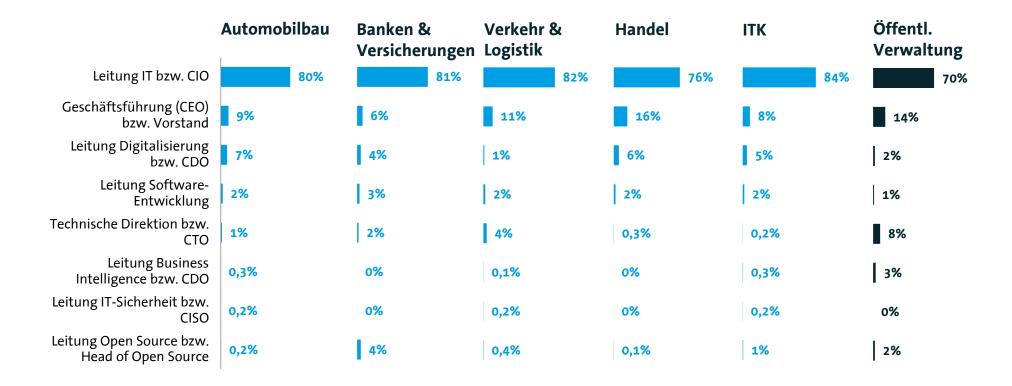




47 Basis: Alle Unternehmen bzw. Organisationen ab 20 Beschäftigten (n=1.152 | n=100) | Abweichungen von 100 Prozent sind rundungsbedingt | Ouelle: Bitkom Research

# Übersicht der Funktionen der Befragten nach Branche

Welche Funktion bekleiden Sie innerhalb Ihres Unternehmens / Ihrer Organisation?



48 Basis: Alle Unternehmen bzw. Organisationen ab 20 Beschäftigten (n=1.152 | n=100) | Abweichungen von 100 Prozent sind rundungsbedingt | Quelle: Bitkom Research