



VDMA Study  
**Product Piracy**  
2022



**Note**

Of course, we treated the information provided by the participants with the usual discretion. In the following chapters, you will therefore find the results in anonymised and summarised form. If you have any further suggestions or questions about the evaluation for the next study on product piracy, please contact us.

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Status: 15.04.2022

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# 1 Introduction

Every two years, the VDMA conducts a study about product and brand piracy among its member companies. For 19 years now, reliable figures and information have thus been collected to give a picture of the threat posed by plagiarism, counterfeiters and copycats in our industry. The necessity of the survey among member companies is shown by the large proportion of companies affected. The damages estimated by the companies run into billions every year for the German mechanical and plant engineering industry alone.

## Definition of Product Piracy

This study is concerned only with the illicit reproduction of products. By illicit reproductions (otherwise called product piracy or counterfeiting), we refer to the

- imitation of products in breach of special proprietary rights (e.g. protected brands or patents, or
- imitation of products without any breach of proprietary rights, but against accepted competitive practice.

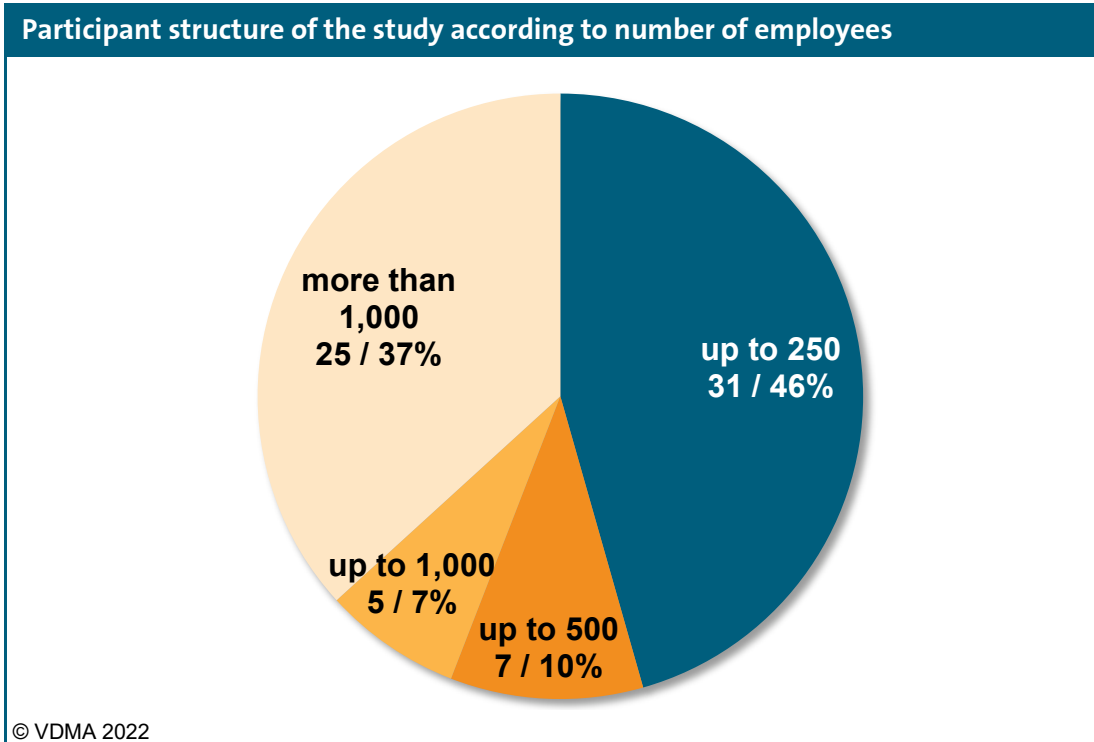
A product is considered a reproduction against accepted competitive practice if the simple fact of the imitation is accompanied by another illicit act, which can mean deliberately obscuring the original product's maker (increasing the likelihood of confusion) and benefiting illicitly from the original brand's good reputation.

## Participant Structure 2022

This year, 68 VDMA member companies took part in the product piracy study during the data collection period from early February to mid-March. Compared to the last study in 2020, the number of participants has thus dropped from 146 to slightly less than half.

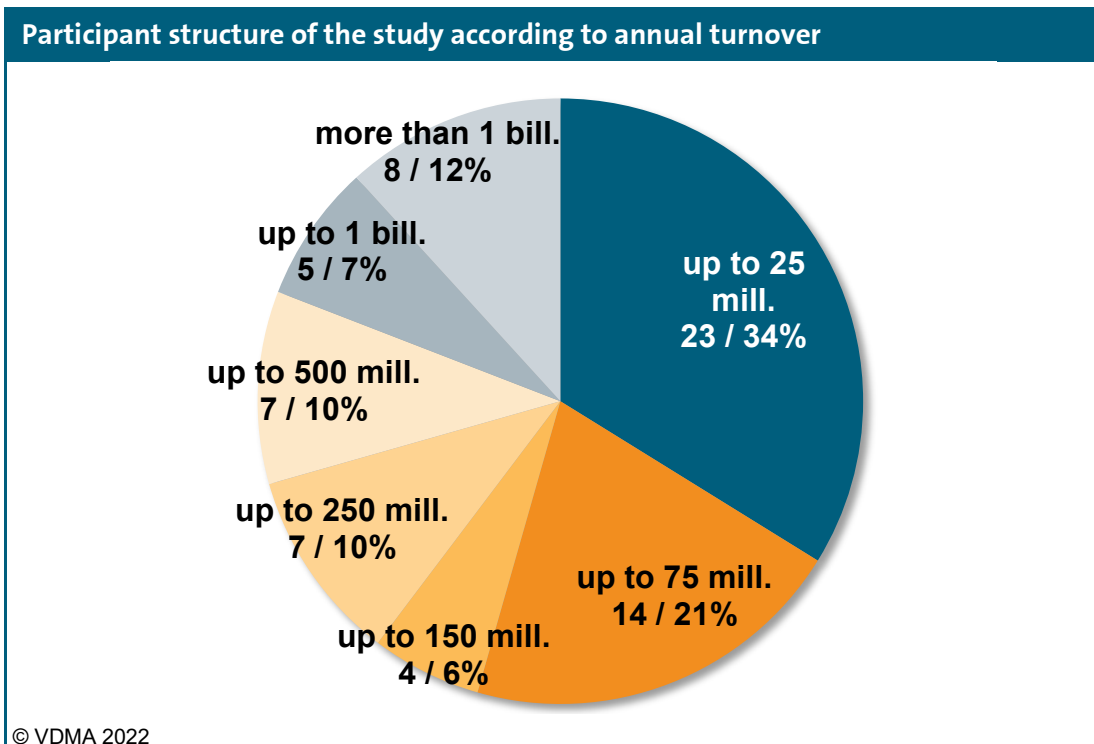
While the study results can thus still show a trend in responses to the questions, fluctuations in responses to individual questions are no longer as meaningful as in previous years. The respective sample size is indicated for the individual questions.

Of the participants, again almost half (46 percentage points) belong to small and medium-sized enterprises. Together with the other half of large companies, this leads to balanced and representative results. While a smaller number of companies with up to 1,000 employees took part compared to the last study, the number of participants above this level remained almost identical. As a result, companies with more than 1,000 employees are more strongly represented in this study than last time (+9 percentage points). The exact structure of participants by number of employees and annual turnover can be seen in the following two charts.



Breakdown of study participants by number of employees.

N=68



Breakdown of study participants by annual turnover.

N=68

## 2 Management Summary

The present results of the survey on product piracy show that the overall high threat level due to product piracy continues and that product and brand piracy and its defence play a central role for the entirety of the members.

Fortunately, this year a significant increase in the number of measures initiated following the discovery of plagiarism is accompanied by a decrease in corporate damages.

**At a constantly high level, 72 per cent of the companies surveyed in the German mechanical and plant engineering sector stated that they were affected by product or brand piracy. The estimated damage amounts to 6.4 billion euros annually.**

Compared to the last study from 2020, the absolute corporate damage has thus decreased significantly by 1.2 billion euros. This could go hand in hand with the simultaneously observed strong increase in measures initiated. However, a turnover in the damage amount of 6.4 billion euros is still enormous and would secure almost 29,000 jobs in the industry. In addition to the loss of turnover and jobs, there are also consequences in the affected companies that are difficult to assess in monetary terms, for example loss of reputation, loss of market advantage or unjustified liability claims.

### Significant increase in measures taken after plagiarism discovery

This year, there was a significant increase of between 33 per cent and 100 per cent in the rate of measures taken as soon as plagiarism was discovered. With a new high of 58 per cent, out-of-court action remains the front-runner, followed by civil court action in 35 per cent of cases.

The People's Republic of China remains the undisputed top dog as the country of origin of counterfeits with a new high of 87 percent. For the first time, Germany is displaced from second place: with strong growth to 26 percent, India takes second place ahead of Germany with 19 percent.

### Plagiarism remains a safety risk

Counterfeits demonstrably pose a safety risk: Around one in two companies report counterfeits posing a safety threat to the plant, and only 33 per cent say that counterfeits of their products pose no threat at all, for example to the user or the environment. Particularly sensitive: Two out of five companies state that counterfeits of their products pose threats to people, for example the operator of a plant.

### Help: Guide and standards as a first source of information

VDMA aids on "Product and know-how protection", on "Measures at trade fairs" and on "Industrial security" offer affected companies support in selecting and implementing suitable protective measures. Further information can be found in the current list of publications at the end of the study.

**The most important results of the VDMA Product Piracy Study 2022 at a glance:**

- **72 percent of companies in the mechanical and plant engineering sector are affected by product piracy (2020: 74 percent).**
- **After the clear trend reversal in the perceived threat of plagiarism in the last study, the majority of the companies surveyed (57 percent) could no longer detect any change in the last two years.** Nevertheless, 41 percent still perceived an increase.
- **The estimated loss in the 2021 turnover year was €6.4 billion, a significant decrease of €1.2 billion compared to the 2020 study. The average loss for affected companies was 4.9 per cent of annual turnover.**
- The loss of 6.4 billion euros in sales corresponds to around 29,000 jobs (2020: 35,000).
- In the case of plagiarism, the means of choice continues to be to enforce the applicable rights first out-of-court (58 per cent) and then under civil law (35 per cent). **However, a significant increase was observed across all categories of measures, by 33 to 100 per cent depending on the category.** Unsurprisingly, large companies remain the forerunners in taking action: **While more than every second large company initiated proceedings after discovering plagiarism, this is the case for only every seventh small and medium-sized company.**
- The People's Republic of China clearly leads the list of countries of origin of counterfeits with 87 percent. India follows in second place for the first time with 26 per cent, ahead of Germany in third place (19 per cent).
- At 70 percent, the most frequent plagiarists continue to be direct competitors, followed by professional large-scale plagiarists with a strong gain to 30 percent. In the case of **business partners (customers, suppliers, licensees, joint venture partners), 41 percent of the respondents state that there is a plagiarist among at least one of them.**
- With regard to infringements of intellectual proprietary rights, **unfair copying is in first place with 53 percent, but this year it is closely followed by trademark piracy in second place with 47 percent.** The infringement of other rights, such as copyright, also increased significantly by 9 percentage points to 28 percent. The only slight decrease was observed in utility models, by 4 percentage points to 11 per cent.
- The most frequent plagiarism remains the two categories "components" and "external appearance (design)" in around 60 percent of cases. So-called "soft" plagiarism (catalogues, brochures, product photos) is less frequent, with a decline of 9 percentage points to 29 percent. **For the first time, the survey asked about plagiarism of websites and online shops, which affects every fifth company.**
- **Counterfeits are demonstrably a safety risk:** 41 per cent of companies report counterfeits that pose a risk to operators or users. **More than half of the respondents (57 per cent) see a danger to the safe operation of the plant in the counterfeits they discover.**

## The VDMA acts

Product piracy is an enormous threat to the innovative strength and competitiveness of our industry. The dangers of piracy and the loss of know-how in mechanical and plant engineering are very diverse. The digital transformation in particular poses new challenges for the protection of data and information, both in product development and in the operation of machines and plants. At the same time, digital services and protective measures are a good way to distinguish oneself from plagiarists with added value and to make simple copying more difficult.

To deal with product piracy in a sustainable manner, we advise companies to adopt a comprehensive defence strategy with adjustments to the company's situation and piracy risks. Different, coordinated measures should be combined to form an individual protection concept according to ISO 22384. In principle, legal protection measures should be taken in the form of applications for protective rights in the respective markets. Without an application for a protective right, it is almost impossible to enforce the law. Likewise, organisational and technical measures must be taken into consideration that include employees as well as traders or customers.

The VDMA actively supports its member companies in the fight against product piracy in the various areas:

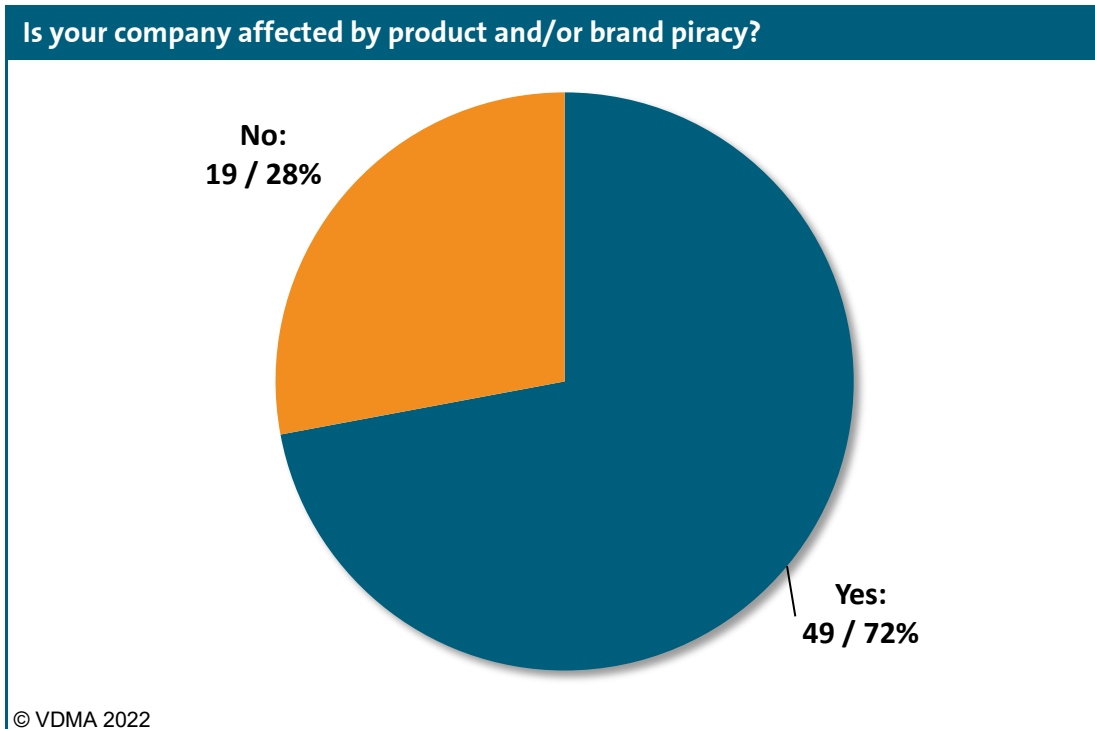
- The VDMA Legal Department provides advice and information on legal issues.
- The VDMA Working Group "Intellectual Property Rights" connects affected member companies on organisational and legal measures.
- Through our offices in Berlin and Brussels, we continue to increase pressure on the German government and the European Union to take more decisive action against product piracy.
- The VDMA working groups "Industrial Security" and "Information Security" connect member companies to gain knowledge and exchange experience in the field of cyber-attacks, security management, crisis response and protective measures.
- The "Traceability" working group (planned) connects member companies with the aim of establishing product tracing, authentication, and identity verification in mechanical and plant engineering.
- The VDMA played a leading role in ISO 22384 "Guidelines to establish and monitor a protection plan and its implementation".
- The VDMA provides the deputy chairman in the German mirror committee of ISO/TC 292 "Security and resilience", the NIA-02-01 "Measures for the authenticity and integrity of products".
- Annual user days on the topic of "Industrial Security" at the VDMA as well as an "Industrial Security" exhibition area at the Hannover Messe offer up-to-date information and tried-and-tested solutions.



### 3 Threat and Concern

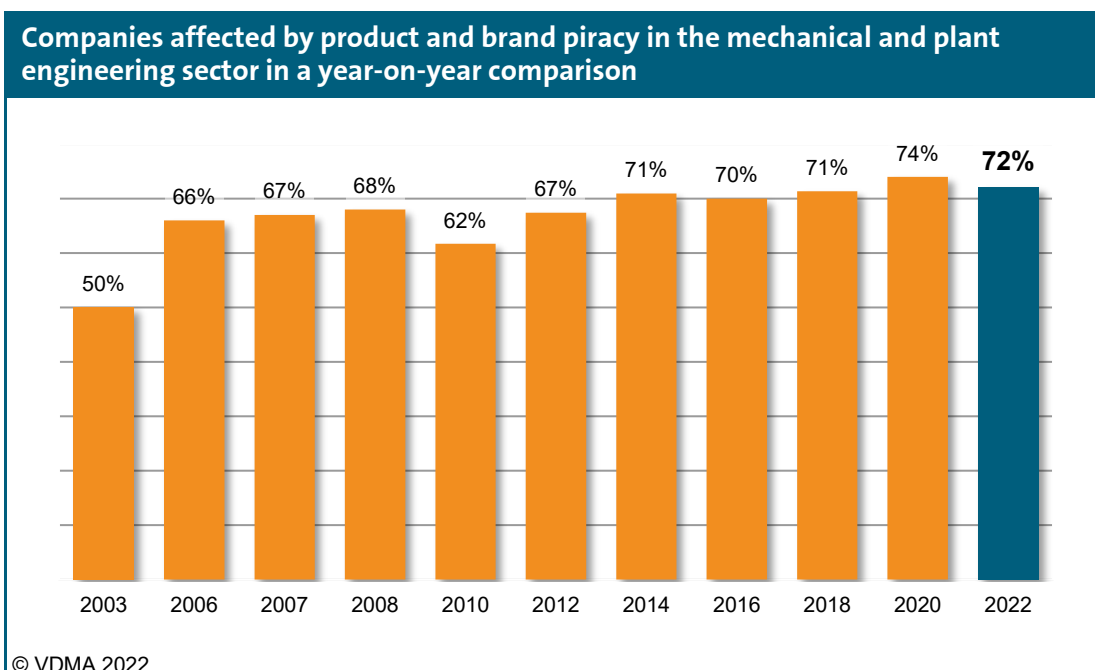
Product piracy is and remains an enormous threat to the innovative strength and competitiveness of our industry, which is reflected in a still very high value despite a slight decline: **72 percent of the companies surveyed are affected by product piracy.**

Here, comprehensive countermeasures by companies and authorities are confronted with a global exchange of data, changes due to Industry 4.0 and increasing motivation of plagiarists.



Proportion of companies affected by product and brand piracy.

N=68



Proportion of companies affected compared to previous years.

N=68 (2022)

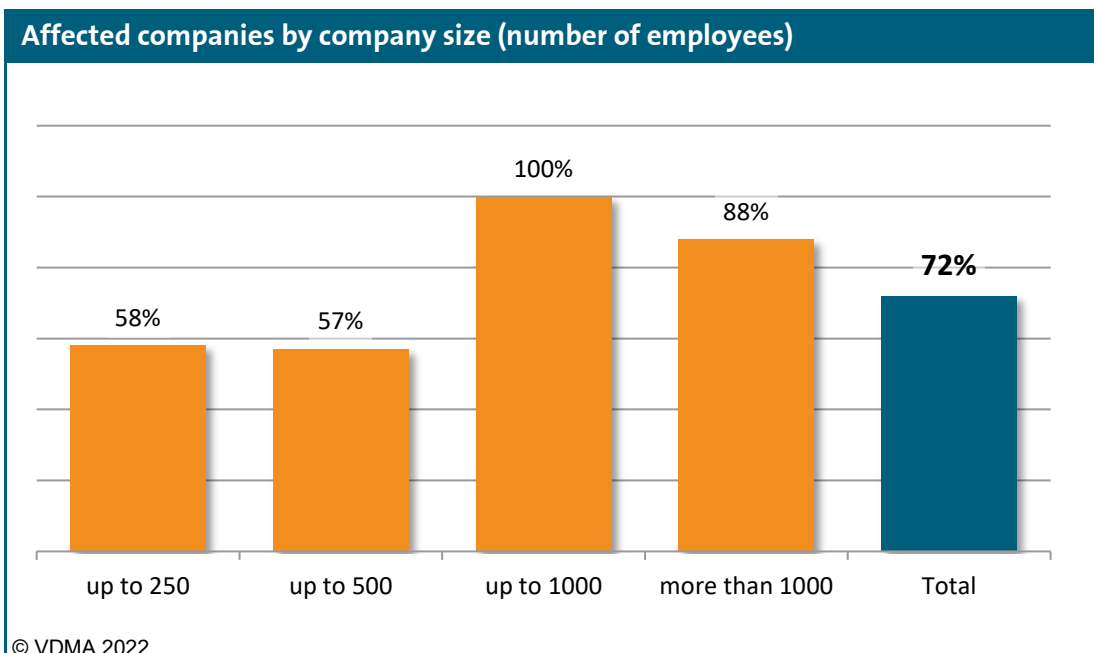
Compared to the results of the past 19 years, despite all the efforts and activities undertaken by the companies, by the VDMA or by the Federal Government, the rate of companies affected by product and/or brand piracy is not significantly decreasing.

However, this does not at all mean that these activities are ineffective, as a significant increase in the number of affected companies has been prevented over the last few years. On the contrary, the high rate of affected companies underlines even more clearly that such efforts and activities as a whole, and especially on the part of politicians, must be further expanded in the future.

In addition, new ways must be found to reduce the impact of product piracy. Promising approaches to this are provided by the possibilities that digitalisation brings with it, for example in know-how protection or licensing.

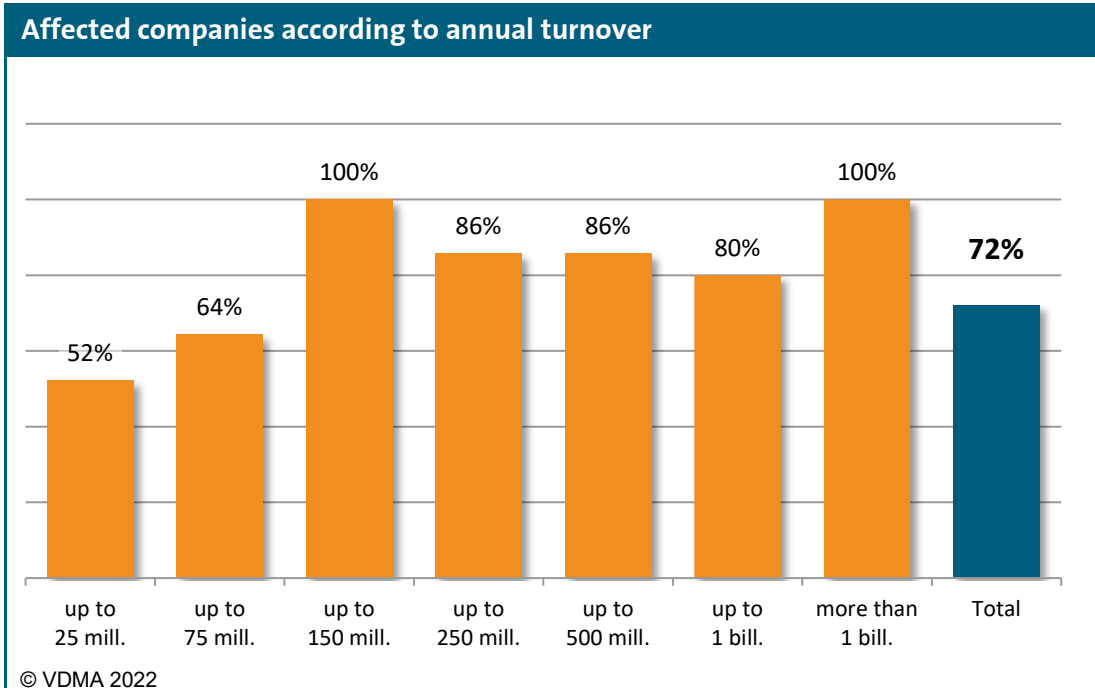
Further interesting insights are provided by a breakdown of the companies affected by product and/or brand piracy according to the number of employees or annual turnover. This shows that the larger the company, the greater the incentive for plagiarists to share in this success: **For companies with more than 1,000 employees, or with an annual turnover of more than 75 million euros, the rate of being affected rises from the average value of 72 percent to a value of slightly more than 90 percent.**

Although small and medium-sized enterprises are not affected to the same extent, a shockingly high rate of over 50 percent is also shown here for companies with fewer than 500 employees. This means that even among small and medium-sized enterprises, around half of the companies are victims of product and/or brand piracy. Compared to the last study, there has been a slight decrease here: In the 2020 study, the figures for companies with fewer than 250 employees were still at 64 percentage points, in 2018 at 60 percent of companies and in the 2016 study only at 55 percent.



Proportion of companies affected by product and brand piracy by number of employees.

N=68



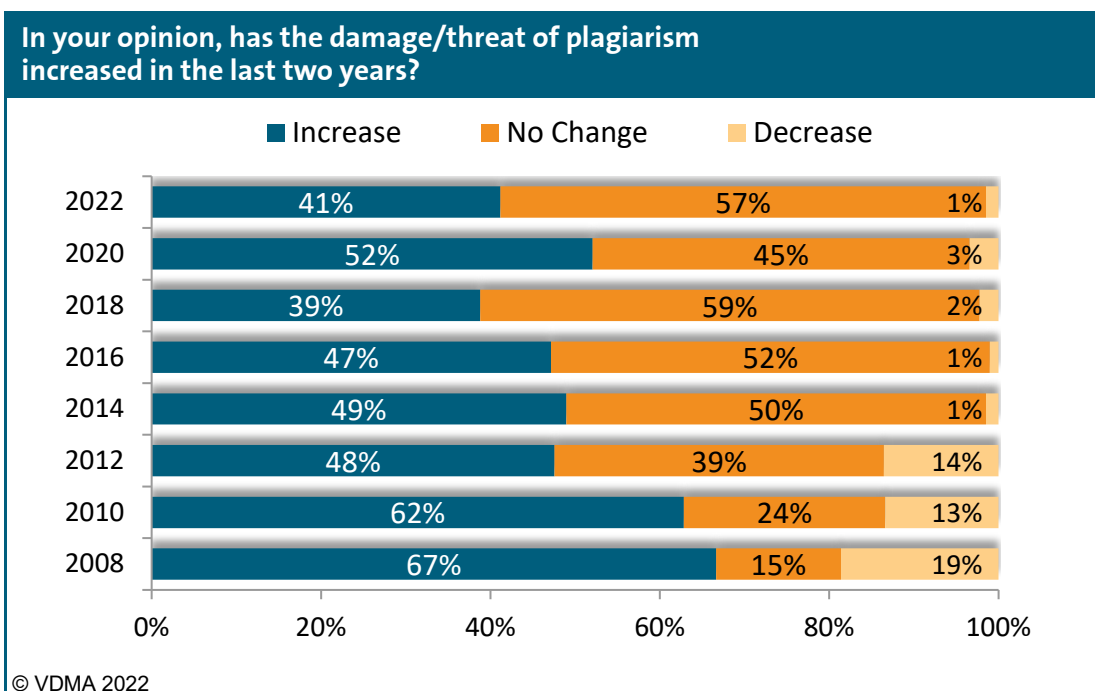
Proportion of companies affected by product and brand piracy by annual turnover.

N=68

Another question of the study dealt with the subjective assessments of the study participants on the perceived threat within the past two years.

After the clear trend reversal in the perceived threat level in the last study, **this year only 41 percent of the study participants are in favour of an increase in the threat level, a decrease of 11 percentage points.**

However, only one percent of the respondents perceived a decrease in the threat level, the majority of the respondents could not observe any change.



Assessment of the threat situation.

N=68 (2022)

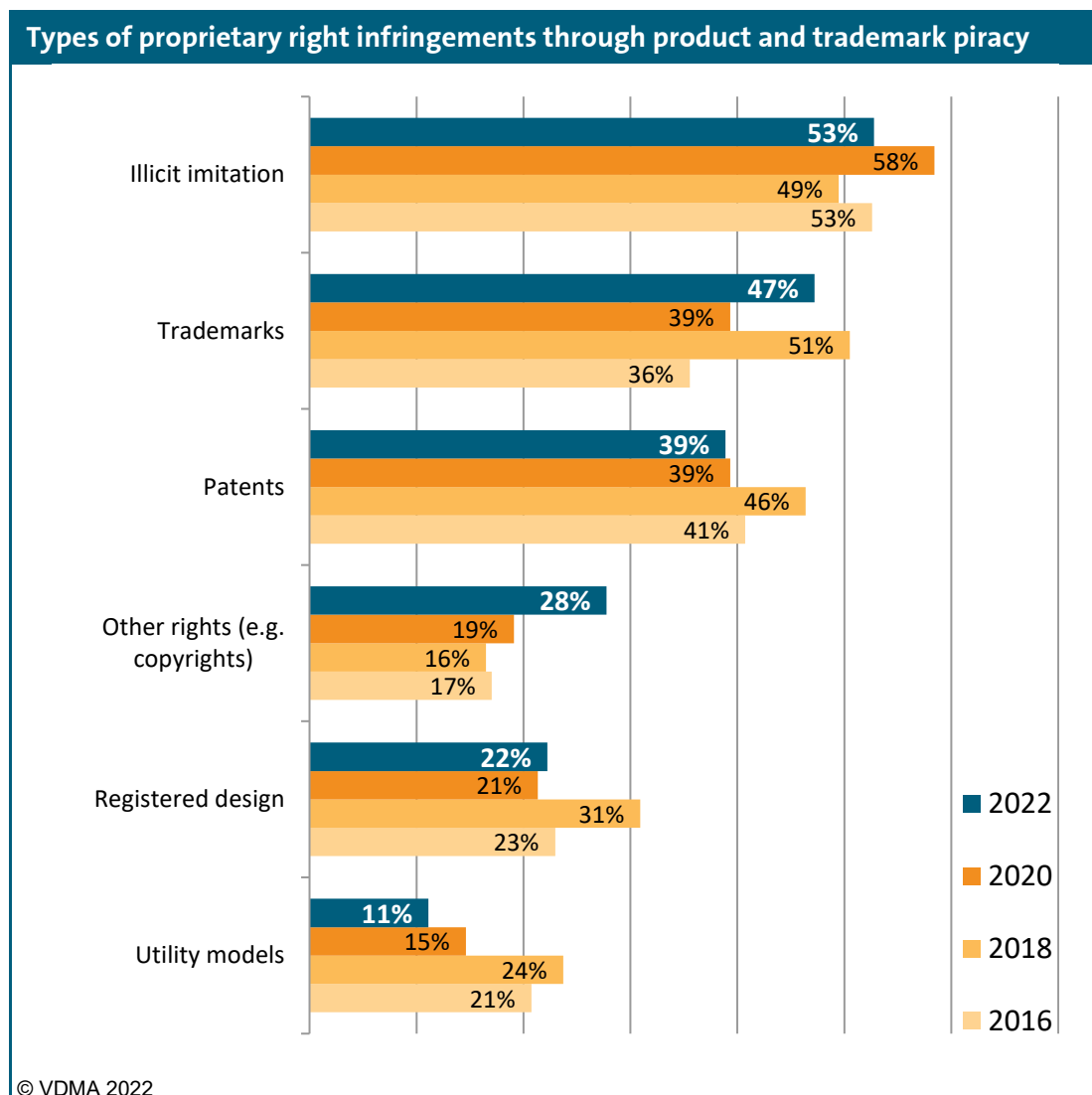
## 4 Infringement of Proprietary Rights

When asked about the type of infringement of IP rights, there was a slight decrease in "classic" illicit imitation by 5 percentage points to 53 percent compared to the last study.

**There has been a significant increase in trademark piracy and infringement of other rights:** with an increase of 8 percentage points, 47 percent and with an increase of 9 percentage points, respectively, 28 percent of the companies concerned have now become victims of this.

The trend of a lower number of infringed utility models continues this year: Only 11 percent of the companies concerned still observe this type of IP right infringement.

There are no significant changes in the infringement of patents and designs compared to the last study: **four out of ten, or one out of five, companies complain about infringements of these property rights.**



Types of IP rights infringements.

N=36 (2022, multiple answers possible)

## 5 Typical Types of Plagiarism

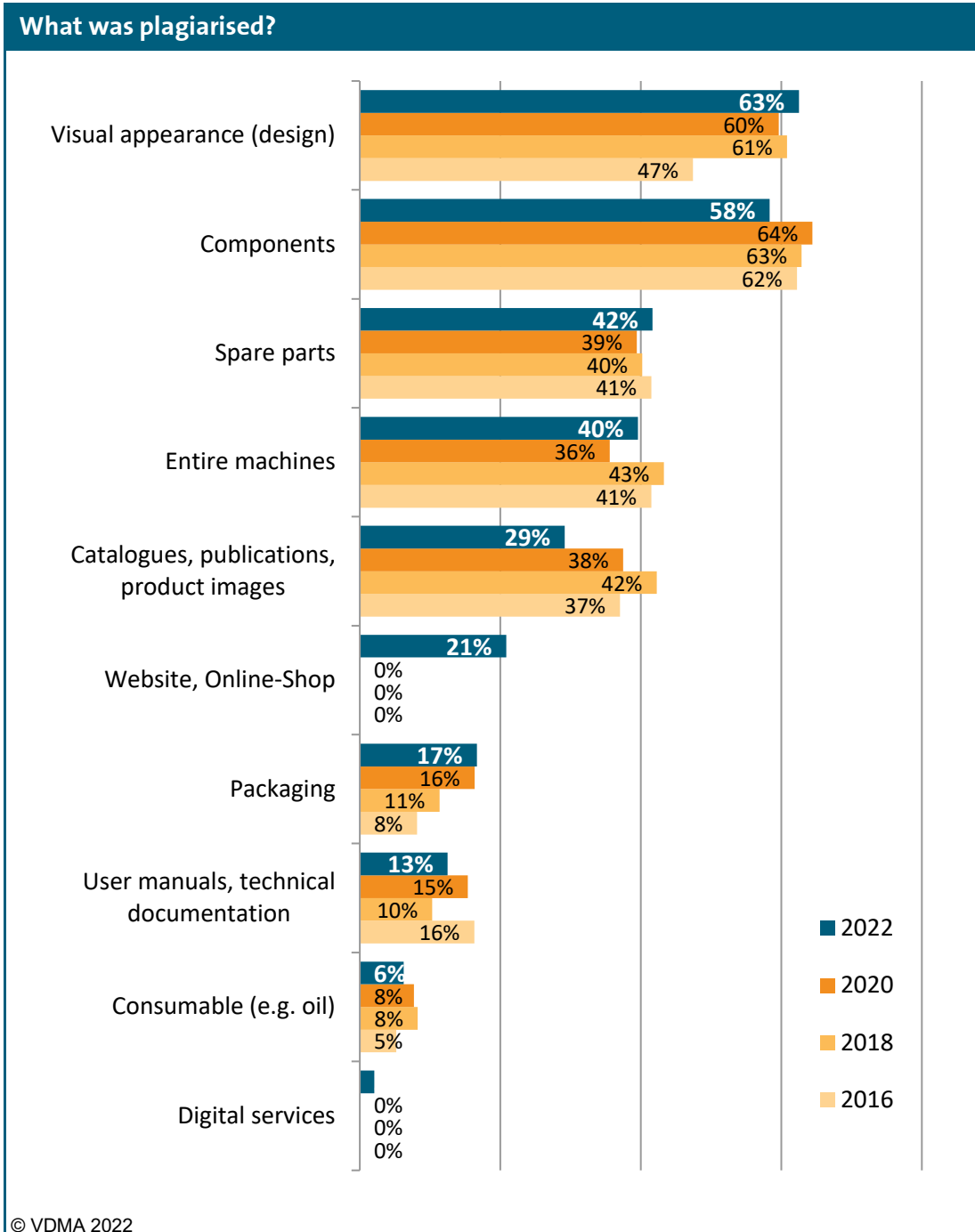
The fact that there can be many different forms of imitation and counterfeiting behind a plagiarism is shown again this year in the answers to the question about the type of plagiarism.

Apart from a **decrease in plagiarism of entire catalogues, brochures, or product photos by 9 percentage points** to 29 percent, there were no significant changes compared to the last study.

**Plagiarism of the external appearance and individual components continue to** lead the way as the **clear frontrunners with around 60 per cent**, although they have swapped order this year.

Compared to last year, counterfeits of spare parts and entire machines show a slight increase of 3 and 4 percentage points respectively.

This year, for the first time, we asked about the type of plagiarism "website/online shop", or plagiarism of digital services in general, which affected 21 percent of the companies surveyed: **One in five companies could observe plagiarism of their web presence.**



Types of plagiarism.

N=48 (2022, multiple answers possible)

## 6 Plagiarists and Their Clients

One of the study's questions was aimed at determining by whom the counterfeits are produced and circulated, or who commissions this.

For more clarity, two categories have already been combined in the questions this year: organised crime and underground factories, as well as licensees and joint venture partners.

Unsurprisingly, direct competitors can claim first place in around three out of four cases as the most frequent plagiarist group, with a clear lead.

With a significant gain of 9 percentage points, **professional large-scale plagiarists** follow in **second place with a strong 30 per cent**; almost one in three of the companies concerned is thus faced with competitors who specialise in plagiarism.

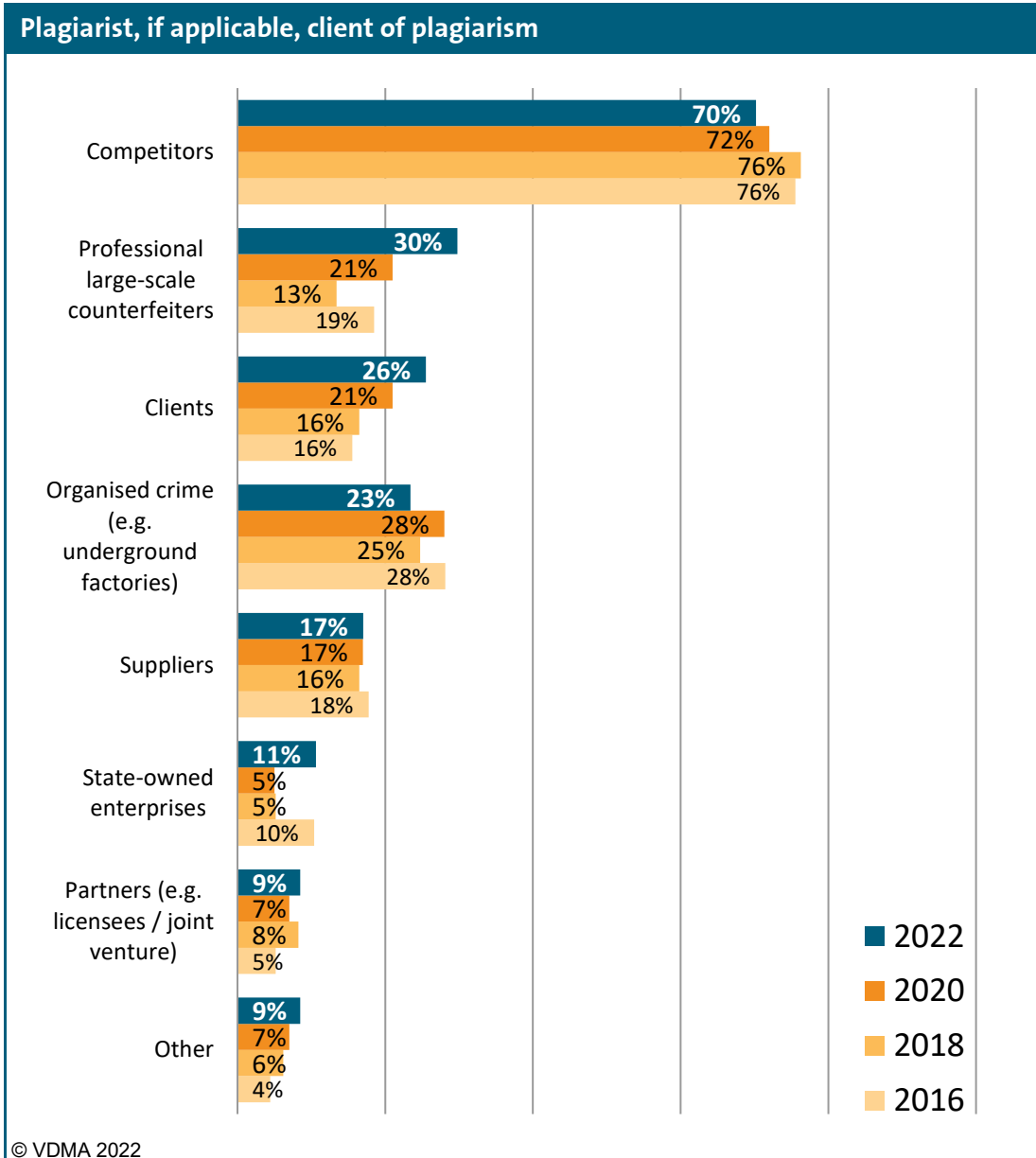
Although still lagging behind, **state-owned enterprises are once again moving further into the picture, with a significant increase to 11 per cent.**

Customers also appear more frequently as plagiarists: **in around one in four cases, plagiarism originates from customers.**

The increase in plagiarising customers and professional large-scale plagiarists thus continues the trend of the last two studies.

Only in the case of organised crime does a slight decrease to 23 per cent seem to be visible, although this may also be due to the small number of participants.

**If customers, suppliers and partners are grouped together under the heading of business partners, a shocking 41 per cent of respondents say that there is a plagiarist among at least one of them.** This shows that despite the existing relationship of trust, measures to protect company and trade secrets are necessary and that investments in protective measures pay off.



Plagiarists and, if applicable, their clients.

N=47 (2022, multiple answers possible)

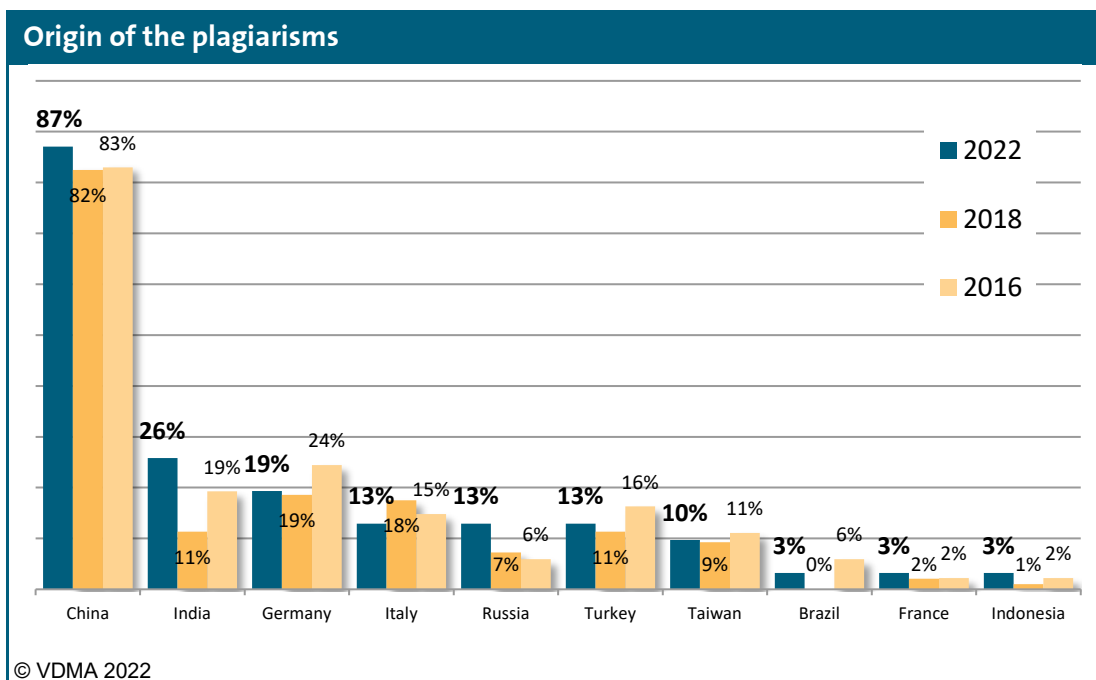


## 7 Origin of Plagiarism

After the last study in 2020 only asked about the country of distribution of counterfeits, this year the focus was again on the origin of the counterfeits.

The People's Republic of China remains the undisputed top dog as the largest source of counterfeits: **with a slight increase, 87 percent of the companies surveyed name China as the country where counterfeits are produced.**

A surprising development follows in second place, which has been occupied by Germany in the past studies. **With more than a doubling since the last study, India displaces Germany in third place with 26 per cent.**



Countries of origin, TOP 10 mentions

N=31 (multiple answers possible)

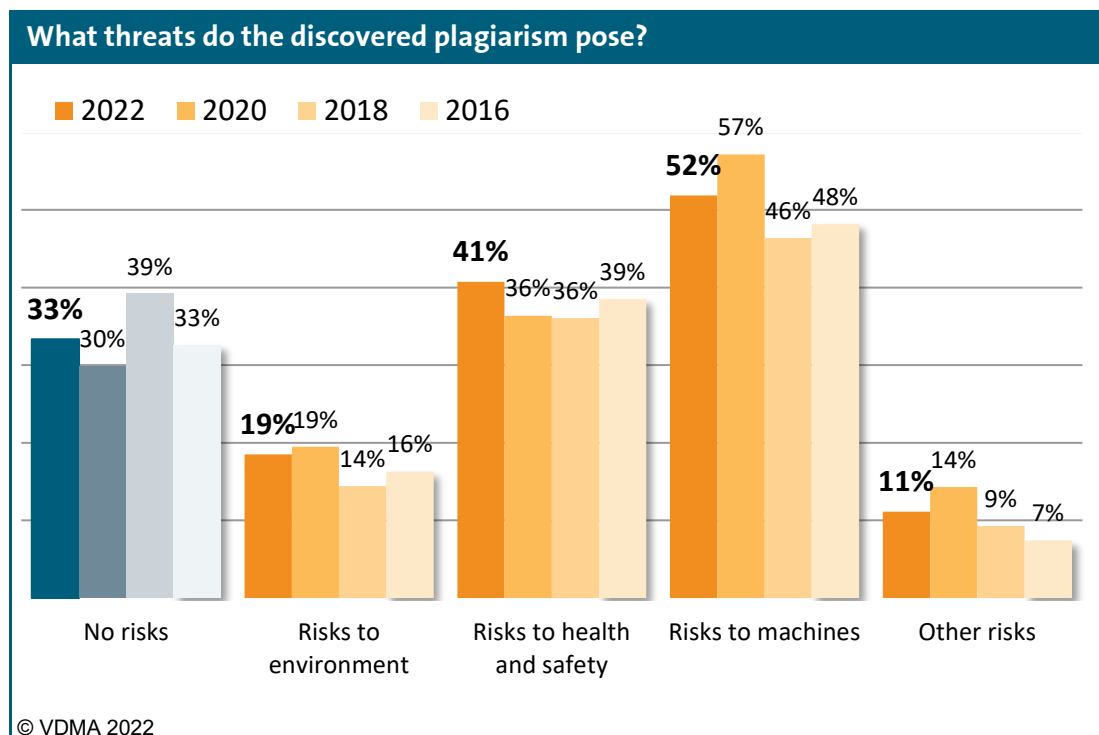
## 8 Safety Threats due to Plagiarism

Since the study in 2016, we have been asking about potential hazards posed by the detected counterfeits, for example for humans due to missing or non-functional safety equipment or for the plant due to low-quality spare parts.

While the risks to the plant and other risks are assessed slightly lower this year, they remain at a constantly high level: **in more than half of the cases, the use of a counterfeit poses a risk to the plant**, for example due to higher wear and tear when installing low-quality spare parts. In more **than one out of three cases, there is also a direct danger to people**, for example to the operator of the machine; compared to the last survey result, this is an increase of 5 percentage points.

Only in less than one out of three cases does the plagiarism pose no particular threat.

In some cases, the original manufacturers also saw dangers for their own companies, for example through damage to their reputation due to reduced reliability or lower quality in the case of counterfeits, which in the worst case could threaten their existence.



Danger potential of discovered plagiarism.

N=27 (2022, multiple answers possible)

Therefore, in the interest of the safe and reliable operation of machines and systems, care should always be taken to ensure that no counterfeits sneak in. This is particularly important for the health and safety of the company's own employees, but also for financial reasons, as equipment failures or customer complaints can cause consequential costs and damage to the company's image.

## 9 Measures after Plagiarism Discovery

Once the plagiarism of a product has been discovered, there are various measures that can be taken. In the past two years, there has been a significant increase in the number of measures taken in all categories, so that **only one in three of all cases of plagiarism was discovered without consequences**, a significant decrease compared to the 49 per cent figure from two years ago.

The most significant, absolute increase of 20 percentage points was recorded for out-of-court measures, which were initiated for the first time this year in 58 percent of cases, more frequently than for every second plagiarism discovered.

The growth across the individual measures taken varies greatly, from around 50 per cent growth in civil court action or border seizure, to a doubling of criminal charges filed or the conclusion of compulsory licences.

**In the first-time introduced heading "Discontinuation of business in this segment/product area" there was one affected company.**

Other measures mentioned were, for example, better design protection or less information content in operating instructions to make the work of plagiarists more difficult.

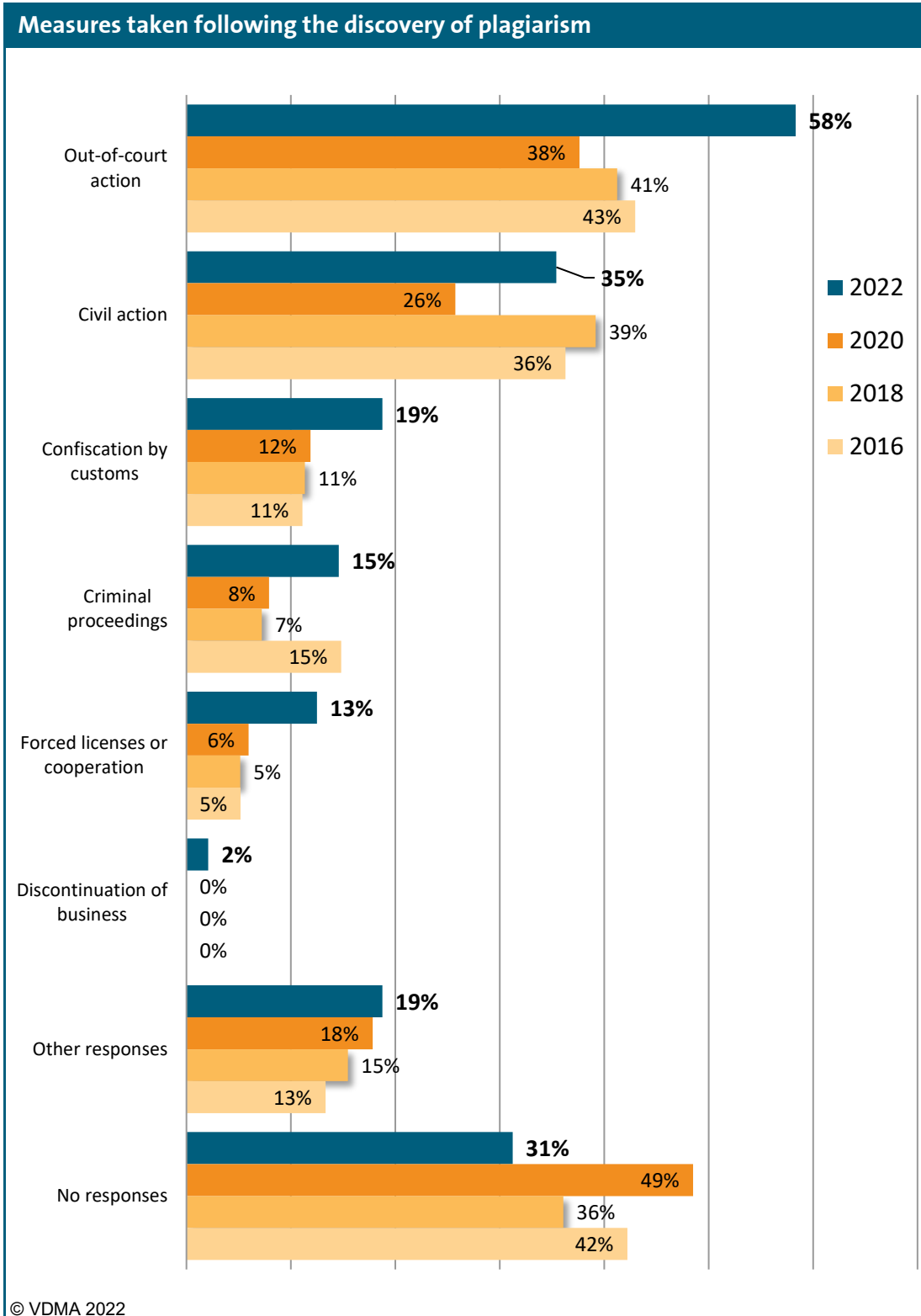
Other feedback indicated that, in addition to patent and trademark attorneys, detective measures were also initiated, or that information campaigns were actively conducted to raise awareness among customers in affected countries.

This significant increase in the number of measures taken is also due to the fact that the number of companies with more than 1,000 employees is higher than in previous years.

Past studies have already shown the trend that small and medium-sized companies do not take action against detected plagiarism to the same extent as large companies: **While companies with more than 1,000 employees take no action in only one in seven cases, this is the case in around one in two cases for small and medium-sized enterprises.**

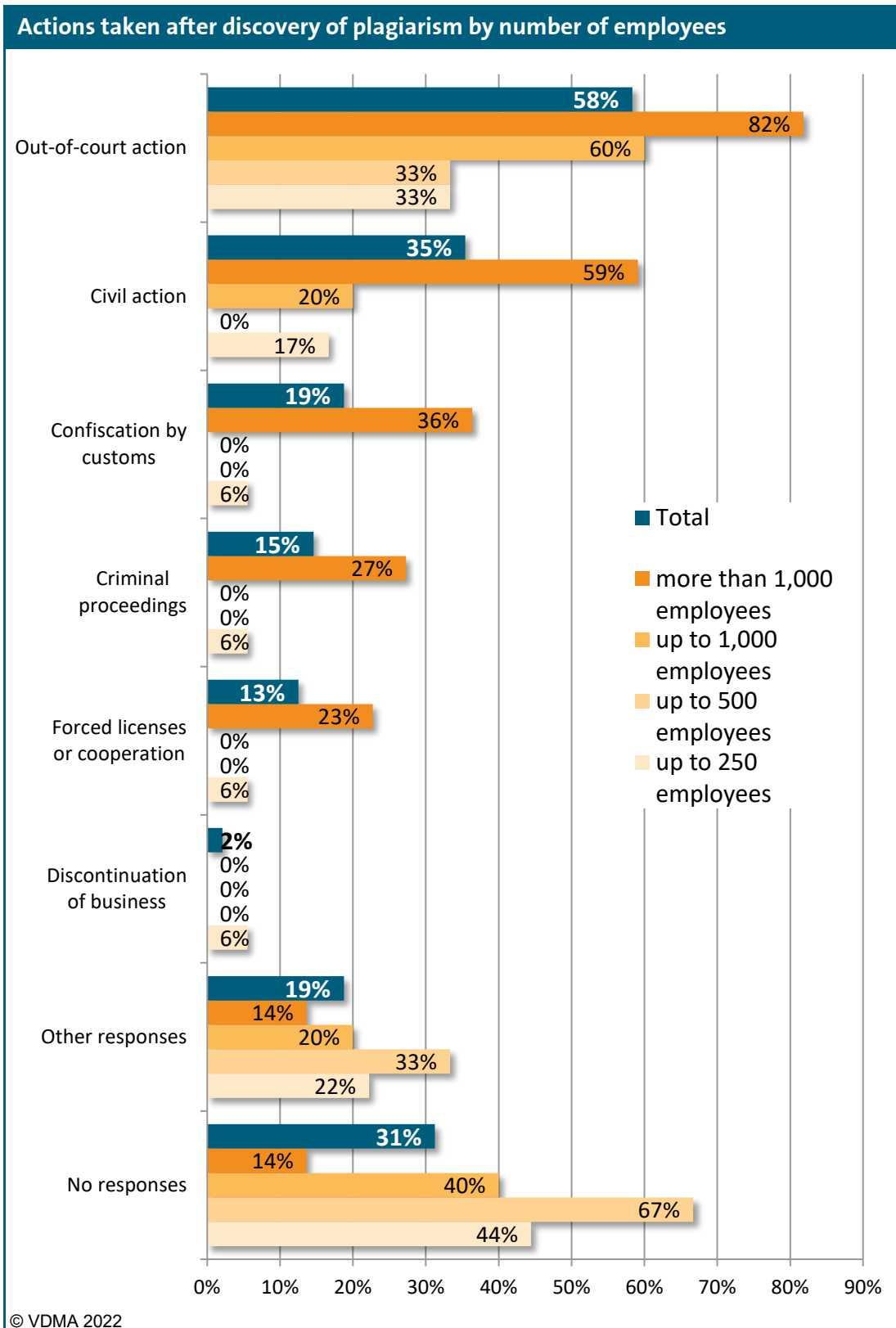
In addition to the fact that plagiarists or distribution channels cannot always be identified beyond doubt, rigorous prosecution of plagiarism may also be uneconomical or not feasible at a reasonable cost for the companies concerned. In general, it seems that the larger the company, the more likely and extensive the measures taken.

This trend is again particularly clear in the case of civil court action. **While more than every second large company initiated proceedings after discovering plagiarism, this is the case for only every seventh small and medium-sized company.** The reasons for this lie in the lengthy and costly nature of such proceedings, which is why the VDMA recommends first considering an out-of-court approach, such as letters from lawyers, personal talks or educational measures at the customer's premises. Experience shows that an initial improvement is then achieved, as many plagiarists act undetected and do not want to be publicly named. Around four out of ten of the SMEs concerned make use of this, and four out of five of the large companies surveyed.



Measures taken after plagiarism discovery.

N=48 (2022, multiple answers possible)



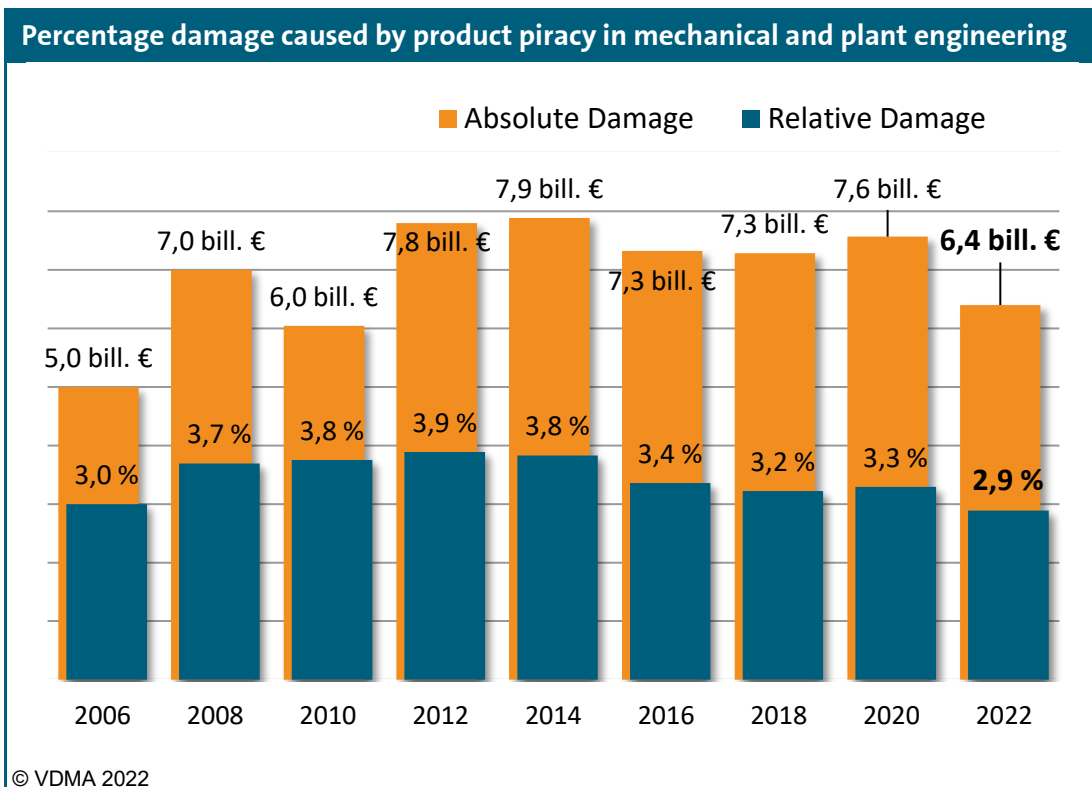
Measures taken when plagiarism is discovered, by number of employees. N=48 (multiple answers possible)

## 10 Business Damage

In this chapter we deal with the question of the estimated corporate damage caused by product and brand piracy. The self-assessment of the damage to the company is not only based on the pure loss of turnover, but also on any subsequent damage to the company's image, incorrect claims under warranty, product liability or similar, and was given by the participants in the study as a percentage.

Together with the value for the annual turnover of the German mechanical and plant engineering industry<sup>1</sup> from the previous year, an absolute figure can be calculated for the company damage caused by product and brand piracy. The regular survey and evaluation by the VDMA provides a good estimate of how the damage caused by product piracy has developed in recent years.

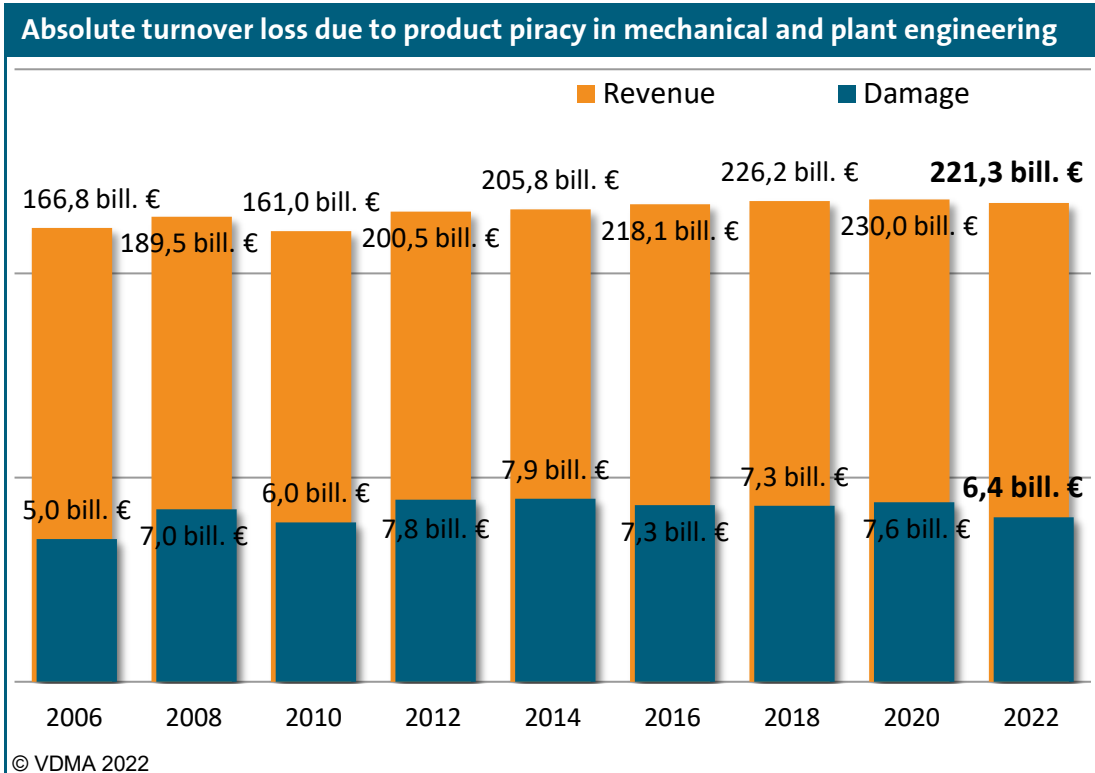
After a slight increase in the last study, the estimated corporate loss incurred by German machinery and plant manufacturers in 2021 is now 2.9 per cent, continuing the general downward trend since 2014 and falling below the 3 per cent mark for the first time. Since in the same period the annual turnover of the entire industry recorded a decline to 221.3 billion euros, the absolute corporate loss drops significantly to 6.4 billion euros. A turnover share of this amount corresponds to around 29,000 jobs in mechanical and plant engineering.



Company damage in EUR and loss of turnover in per cent by product piracy in Germany in comparison.

N=46 (2022)

<sup>1</sup> Source: Federal Statistical Office/VDMA, companies with more than 50 employees.



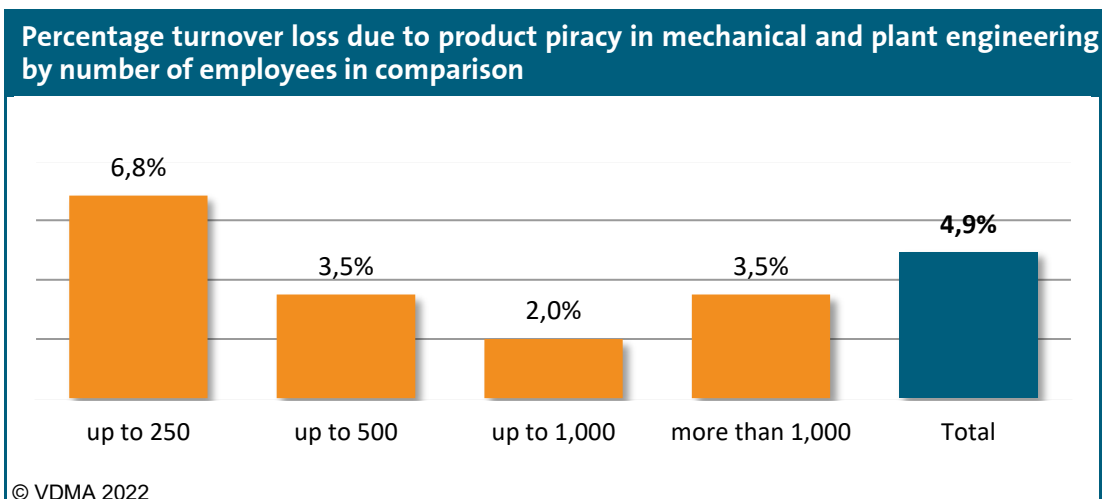
Industry turnover of the previous year and damage by product piracy in Germany in comparison.

N=46 (2022)

The loss of turnover of 2.9 percent reflects the overall average of the study participants. This means that not only affected companies are included, but also companies that have not suffered any losses in the past two years.

If only those companies are included in the calculation that actually reported turnover losses due to product piracy, the average turnover loss is naturally higher and reaches an average value of 4.9 percent.

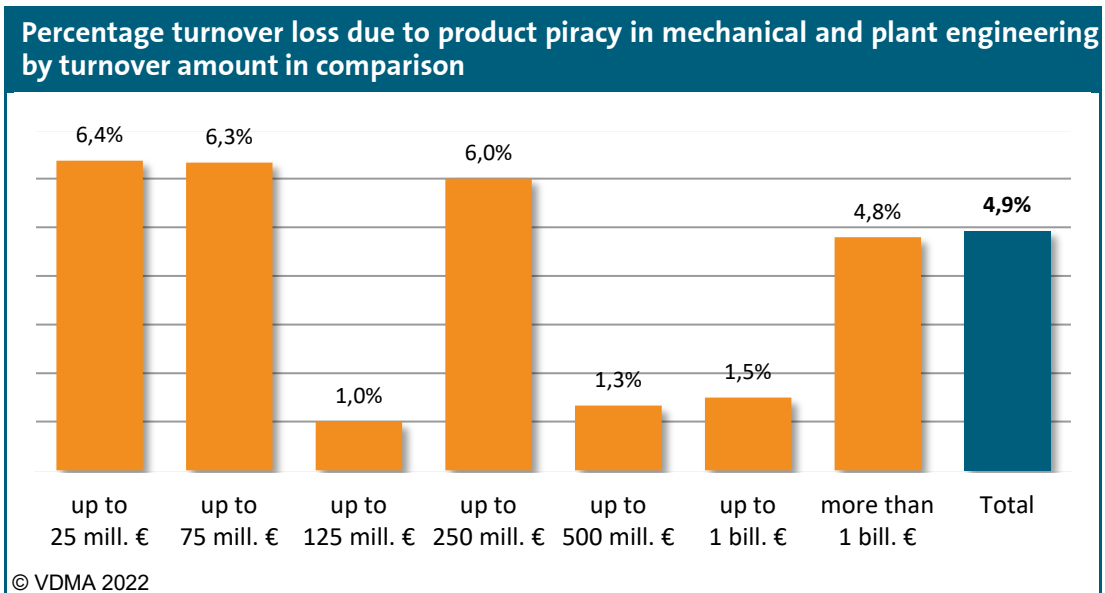
Broken down by company size, small companies with up to 250 employees suffer higher losses than companies with 1,000 employees or more. For medium-sized companies, there is no data basis for reliable statements: of the total of 27 responses, only three fall into the two categories of 250 to 500 and 500 to 1,000 employees.



Loss of turnover due to product piracy in Germany by company size in percent.

N=27

If instead of the number of employees, the company turnover is used as a differentiating factor, a similar picture emerges: The small sample size of 27 responses makes for seemingly large fluctuations between the different categories, with individual categories sometimes containing only one response.



Loss of turnover due to product piracy in Germany by company turnover in percent.

N=27



## 11 Politics and Fairs

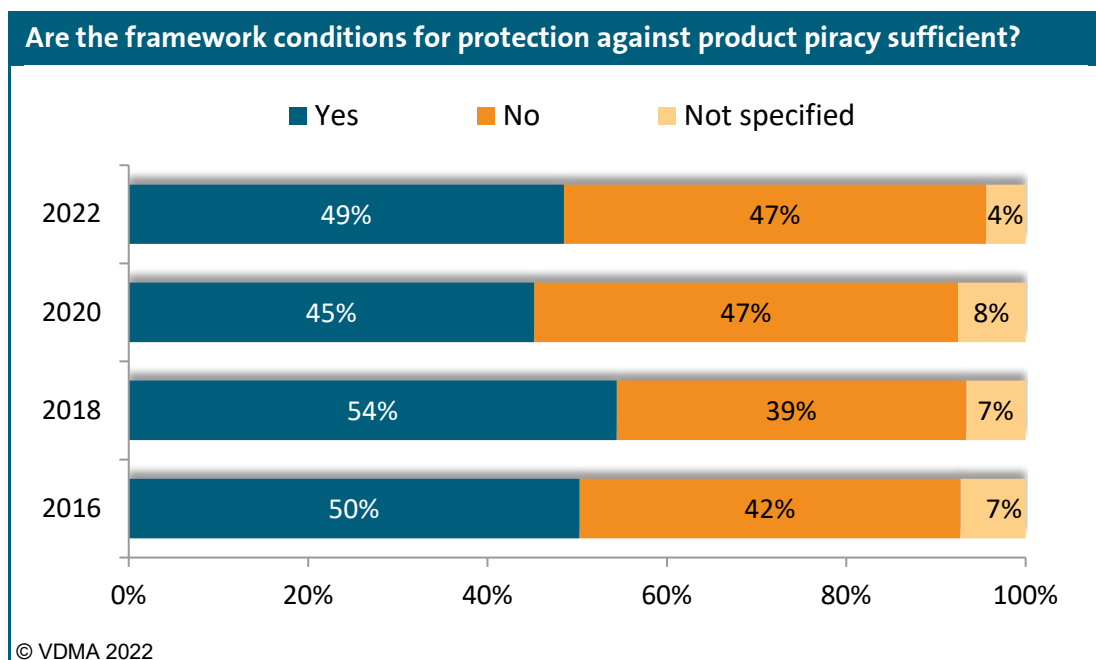
Since the study in 2016, we have asked the study participants at the end for a general assessment of the legal framework for protection against product and brand piracy.

This year, too, the companies surveyed are undecided: **Around half of the companies consider the legal framework for protection against product piracy to be insufficient.** It is interesting to note, however, that half of those respondents who could not provide information last time are now in favour of sufficient legal framework conditions.

The comments submitted show that the legal framework in Germany and Europe is considered sufficient, but that more uniformity is already desired in Europe. The lack of globally applicable and uniform regulations makes it difficult to enforce one's rights and often results in lengthy proceedings that ultimately do not achieve the desired deterrent effect with penalties that are too low.

One participant specifically mentioned China, India, Saudi Arabia, Oman, and the United Arab Emirates as countries where it is not realistic to enforce one's own rights, and instead saw areas of action in re-imports to the EU and the USA, or Canada.

In addition to more severe fines, there were calls for simplified procedures that can be initiated in an uncomplicated manner and lead to a result in a timely manner.



Evaluation of the framework conditions on product piracy.

N=68 (2022)

## 12 The VDMA acts

The VDMA's activities against product piracy have developed continuously since their start with this study in 2003. Whereas at the beginning the main focus was on informing and raising awareness among politicians and society, the current measures concentrate on improving law enforcement and the exchange between affected companies.

On the initiative of the VDMA, ten BMBF-funded research projects with a research volume of almost 30 million euros were carried out on technical measures between 2008 and 2011. In the joint project "Innovations against product piracy", piracy-robust design of products and processes, labelling technologies as well as risk assessment and implementation of measures were researched. The results of the projects were published in three comprehensive volumes by VDMA-Verlag (see list of publications).

In 2010, the VDMA established the Working Group on Product and Know-How Protection (AG Protect-ing) to ensure that the researched product protection innovations are further developed in a mechanical engineering-specific manner. After successful work, the working group was merged into the **"Intellectual Property Rights" working group in 2016**.

The VDMA working group "Intellectual Property Rights" connects and informs interested VDMA member companies about the latest developments in IP and, under the leadership of Dr Stephan Wolke, thyssenkrupp Intellectual Property GmbH, offers a confidential space for exchanging experiences on legal, technical and organisational activities.

### Legal safeguards

For most companies, legal protection forms the basis in the fight against product piracy. We inform our member companies in brochures and lectures about legal possibilities for innovation protection and provide sample contracts. In personal talks, we discuss problematic cases and help with the registration of IP rights and contractual clauses.

At selected trade fairs, we provide an emergency lawyer service that enables action against plagiarists at the trade fair. Our cooperation with law firms in the most important foreign markets enables us to provide fast and competent advice on site.

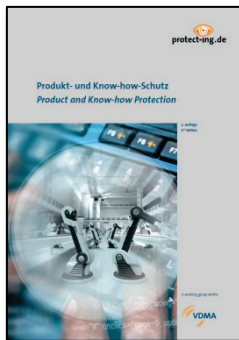
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## 13 VDMA Publications on Product Piracy



### Industry Guide "Product and Know-How Protection"

Language: German and English  
Price: free of charge

Contributions on product piracy, security, and know-how protection. Overview of technologies, protection measures and solutions in the (dissolved) working group incl. matrix.

Available on request from Biljana Gabric: [biljana.gabric@vdma.org](mailto:biljana.gabric@vdma.org)

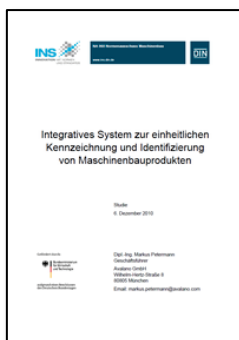


### Guide "Product and Know-how Protection"

Language: German or English  
Price: free of charge after registration

Guidance on the successful use of protective measures incl. practical examples.

Available on request from Biljana Gabric: [biljana.gabric@vdma.org](mailto:biljana.gabric@vdma.org)

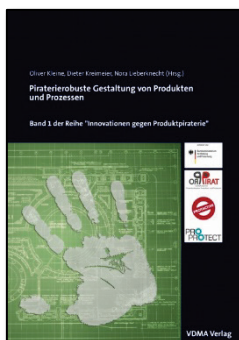


### INS study "Integrative system for the uniform marking and identification of mechanical engineering products"

Language: German  
Price: free of charge

Overview of marking technologies and their suitability for different purposes.

Available on request from Biljana Gabric: [biljana.gabric@vdma.org](mailto:biljana.gabric@vdma.org)



### Pirate-friendly design of products and processes

ISBN 978-3-8163-0601-6

Volume 1 of the series "Innovation against product piracy" with results from the projects:

- PiratPro
- Protective
- ProProtect

<https://www.vdmashop.de/Informatik-und-Technik/Piraterierobuste-Gestaltung-von-Produkten-und-Prozessen.html>



### Labelling technologies for effective protection against product piracy

ISBN 978-3-8163-0602-3

Volume 2 of the series "Innovation against product piracy" with results from the projects:

- O-Pur
- EZ-Pharm
- Mobile Authent

<https://www.vdmashop.de/Informatik-und-Technik/Kennzeichnungstechnologien-zum-wirksamen-Schutz-gegen-Produktpiraterie.html>



### Effective protection against product piracy in the company

ISBN 978-3-8163-0603-0

Volume 3 of the series Innovation against Product Piracy with results from the projects:

- ProOriginal
- KoPira
- KoPiKomp
- ProAuthent

<https://www.vdmashop.de/Informatik-und-Technik/Wirksamer-Schutz-gegen-Produktpiraterie-im-Unternehmen.html>

## 14 VDMA Publications on Security



### Secure remote maintenance in mechanical and plant engineering

Language: German

Price: free of charge, for members only

Examples of remote maintenance architectures show how mechanical and plant engineering can ensure secure service from a distance.

<https://www.vdma.org/viewer/-/v2article/render/45231112>



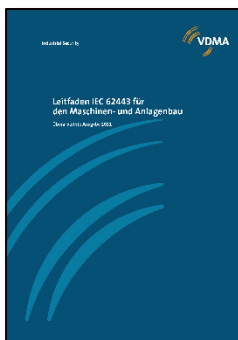
### Industrial Security: Minimum recommendations for security in the supply chain

Language: German

Price: free of charge

Minimum recommendations for machine and plant manufacturers on technical, organisational, and procedural requirements for the implementation of security for products and processes.

Available on request from Ms Biljana Gabric: [biljana.gabric@vdma.org](mailto:biljana.gabric@vdma.org)



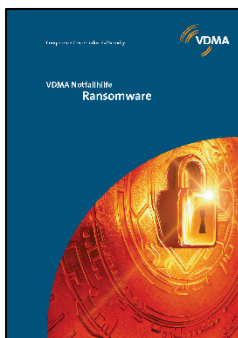
### VDMA guideline IEC 62443 for mechanical and plant engineering

Language: German, English

Price: 50 euros for non-members, free for members

Description of a path through IEC 62443, as integrator of a machine according to security level 2, incl. examples according to 62443-3-3.

<https://www.vdma.org/viewer/-/v2article/render/16110956>



### VDMA emergency aid Ransomware

Language: German

Price: free of charge

Support, recommended action in the event of infection with ransomware, contact points at authorities and service providers. List of indicators of infection and measures.

<https://industrialsecurity.vdma.org/viewer/-/v2article/render/47727760>

## 15 Imprint

**VDMA**

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60528 Frankfurt am Main  
E-mail: kommunikation@vdma.org  
Internet: www.vdma.org

**Year of publication**

2022

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