



VDMA Study
Product Piracy
2018



Note

All responses of the participants in this study were treated with absolute confidentiality. This publication represents the findings of our study in anonymous and aggregate form. Please contact us with any other comments or questions about the data for the next product piracy study.

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1 Introduction

Every second year, the VDMA invites its members to take part in a study on the issue of product and brand piracy. This has helped us built up a meaningful data set of facts and figures going back to 2003, which reveal the current state of the threat posed by counterfeiters, pirates, and forgers. The sheer numbers of companies affected shows the need for such studies. The damage estimates of our members reach billions of Euros year on year, for the German mechanical engineering industry alone.

What is 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.

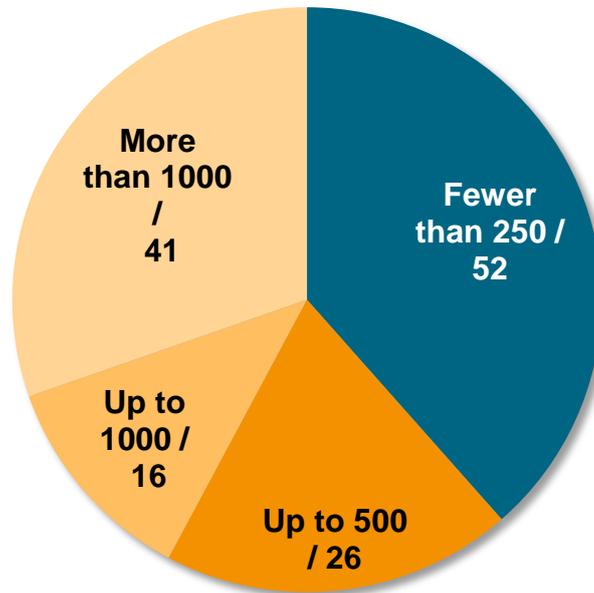
A product is considered a reproduction against accepted competitive practice if the simple fact of the imitation is accompanied by another illicit act, which can mean deliberately obscuring the original product's maker (increasing the likelihood of confusion) and benefiting illicitly from the original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

Sample 2018

For this year's study, 136 members of the VDMA decided to take part over a period from February 5th to March 5th. By comparison, the study for 2016 drew a slightly larger number of respondents, namely 195 participants.

The respondents include numerous small and medium-sized enterprises as well as large corporations, making for a balanced and representative sample. This is reflected in the two illustrations of this year's sample by headcount and revenue dimensions.

Study Participants by Headcount

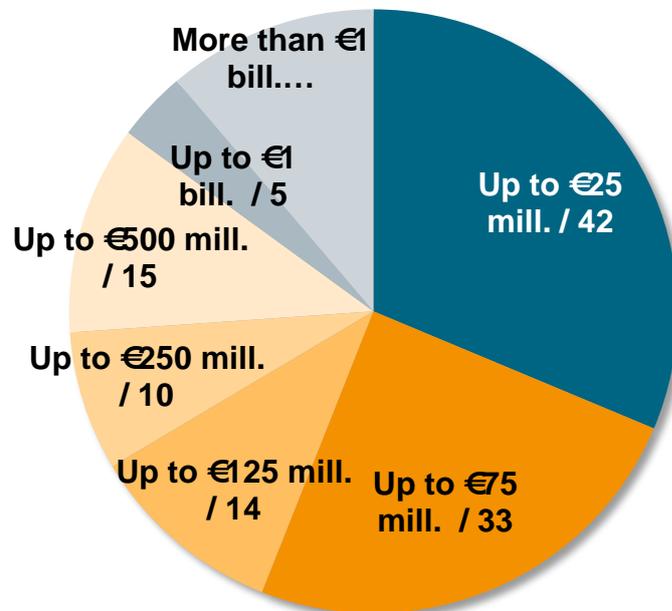


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Participants by headcount.

N=135

Study Participants by Annual Revenue



© VDMA 2018

Participants by annual revenue.

N=134

2 Management Summary

The results of our survey on product piracy shows that the threat is still very much alive at a relatively high level and that product piracy and possible countermeasures is a central concern for all of our members.

71 percent of the enterprises in Germany's industrial engineering sector are directly affected by product or brand piracy. The damages are estimated at □7.3 billion every year.

Compared to the last study from 2016, the scale of the damage has not changed. **This means: the situation has not improved despite the many political initiatives in the area.** Commercial revenue at the level of the damages, i.e. of □7.3 billion, would equate 33,000 jobs in the industry. On top of the lost revenue and potential loss of jobs, companies also have to cope with less easily calculated losses, such as the impact on their reputation, the loss of competitive advantages, or the ever-present threat of unwarranted liability claims.

There is one clear change in this year's situation: While product pirates used to focus their energies mostly on the purely technical faking of hardware, they are now increasingly paying attention to imitating the looks of individual products or entire brands. Such visual fakes tap into the reservoir of goodwill that a company has built up with its brand.

Counterfeits are a safety risk.

Counterfeits are a known risk to health and safety: 36 percent of companies report forgeries that endanger their users, operators, or the environment at large. One particularly worrying aspect of this is that the number of such forgeries sold over regular online B2B platforms continues to grow (40 percent, compared to 28 percent in 2016).

The People's Republic of China maintains its undisputed lead among the top counterfeiters of the world, being the country of origin of 82 percent of all fake products.

China remains the top player in the production and the sale of counterfeits. 82 percent of the participants name China as the place of origin of fake goods. It is not surprising that China is also the busiest market for such counterfeits, with 44 percent of all products sold. Chinese counterfeits are not, however, made only for domestic consumption, but for the global market.

Many VDMA members – including those located in Germany – speak of retailers and forgers who continue to make and sell counterfeit products despite active criminal investigations or even judicial penalties against them. Many are regular faces at industry expositions despite being known counterfeiters.

The local activities – in the typical countries of origin – are far from sufficient for helping companies in their fight against counterfeits. Many countries make it disproportionately hard for companies to enforce standing law.

Help: Guidelines and norms as a first port of call

The VDMA guidelines on “Product and Know-How Protection”, “Traceability”, and “Industrial Security” gives the affected companies support with selecting and introducing suitable countermeasures. For more information, see our current publications at the end of this study.

The most important findings of the VDMA Product Piracy Study 2018 in brief:

- 71 percent of mechanical and industrial engineering companies are affected by product piracy (2016: 70 percent). This unchangingly high number shows that the threat shows no sign of abating.
- **The damages in the financial year 2017 are estimated at \square 7.3 billion, unchanged from the findings in 2016. The average impact for each affected company was 4.5 of their annual revenue.**
- The loss of \square 7.3 billion would equate approx. 33,000 jobs (2016: 34,000).
- **The People's Republic of China continues to top the list of countries of origin with 82 percent of counterfeits made here, and 44 percent sold here. At some distance, this is followed by Germany (19 percent origin, 15 percent sales).**
- Counterfeiters are mostly and increasingly sold by unauthorized traders (54 percent, 2016: 44 percent). A worrying finding is that the sale of counterfeit goods over online B2B platforms has increased dramatically. (40 percent, 2016: 28 percent).
- For 39 percent of the participants, the threat and damage to their company has only worsened in the last two years. 59 percent see an unchanging level of threat.
- **Counterfeits are a known safety risk: 36 percent of companies have reported counterfeits that endanger their operators, users, and the environment. 46 percent of the participants see the counterfeits they have identified as a danger to the effective operations of industrial facilities.**
- With a rapid growth of 15 percentage points to 51 percent, copyright infringements are the most common problem, followed closely by the illicit copying¹ of products and patent infringements. Designs are also increasingly in the crosshairs of forgers (31 percent, or +8 percentage points).
- The most common type of counterfeit product is individual components (63 percent). With +14 percentage points, copied designs are gaining ground and now feature in second place with 61 percent of cases. Around 40 percent of cases relate to the forging of entire machines, spare parts, or so-called "soft" counterfeits (catalogues, brochures, product images).
- 67 percent of victimized companies identified counterfeits that needed the product pirates to engage in genuine *reverse engineering*.
- Every second company affected (50 percent) has identified counterfeits for which the counterfeiter needed no special intelligence (2016: 35 percent). This could relate to the dramatic increase in the number of faked designs.
Competitors continue to be named as the main backers of counterfeiters (76 percent). State-owned enterprises are much less active in this area (losing five percentage points).
- Before trying legal recourse, most companies will first attempt to settle such matters out of court. More than one third of the affected companies would not, however, take any action. This applies in particular to small and medium-sized enterprises, but it also depends on the victim's knowledge of the actual counterfeiter.
- With an increase to 86 percent, registering IP rights (patents, brands etc.) remains the preventative means of choice in the fight against product and brand piracy. Public relations, information campaigns at the client or via social

¹ See the definition of product piracy on page 6

media, often only come into the picture once a company has fallen prey to counterfeiters.

- Companies are gravely disappointed with the level of support they receive abroad. 85 percent of them complain about a lack of support from official authorities; 83 percent call for more commitment from local expo organizers. In Germany, this applies to only a third of companies.

VDMA Taking Action

Product piracy represents a massive threat for the competitiveness and innovative potential of our economy. The dangers posed by piracy or lost know-how are manifold and diverse in mechanical and plant engineering. The current digital transformation is creating new challenges for the safekeeping of data and information.

We advocate a sustainable response to product piracy in the form of a comprehensive defense strategy, adjusted and matched with the unique situation and piracy risks faced by each and every company. A battery of properly aligned countermeasures can and should be selected as part of a custom protection concept. Legal protection, in the form of fully registering all property rights in the relevant markets, is the sine-qua-non: Without registered property rights, companies will find it impossible to assert their claims. Organizational and technical measures also need to be considered and should include both the people inside the companies in question and the people on the outside, such as retailers or customers.

The VDMA supports its members proactively in the fight against product piracy on numerous fronts:

- The VDMA legal office provides advice and information on legal issues.
- The VDMA working group “Industrial Property Rights” brings together affected member companies to share organizational, legal, and technical measures.
- Our local offices in Berlin and Brussels are actively lobbying for more forceful action against product piracy by Germany’s federal government and the European Union.
- The VDMA “Product and Know-How Protection” guidelines offer pragmatic advice on how companies can protect themselves against piracy.
- The VDMA working groups “Industrial Security” and “Information Security” are giving the member companies a forum for sharing experiences and intelligence concerning digital attacks and protective measures.
- Standard responses against product piracy are being put forward at international standards organizations. The VDMA is spearheading the project for the ISO norm ISO 22384 “Preparing a protection plan and measures ensuring authenticity, integrity, and trust”.
- The VDMA provides the deputy chair of the German mirror committee for ISO/TC 292 “Security and resilience”, the NIA-02-01 “Actions on Product Authenticity and Integrity”.
- Annual user / provider days hosted by the VDMA and a shared exhibit on “Industrial Security” at the Hannover Messe and Interpack offer up-to-date information and solutions.

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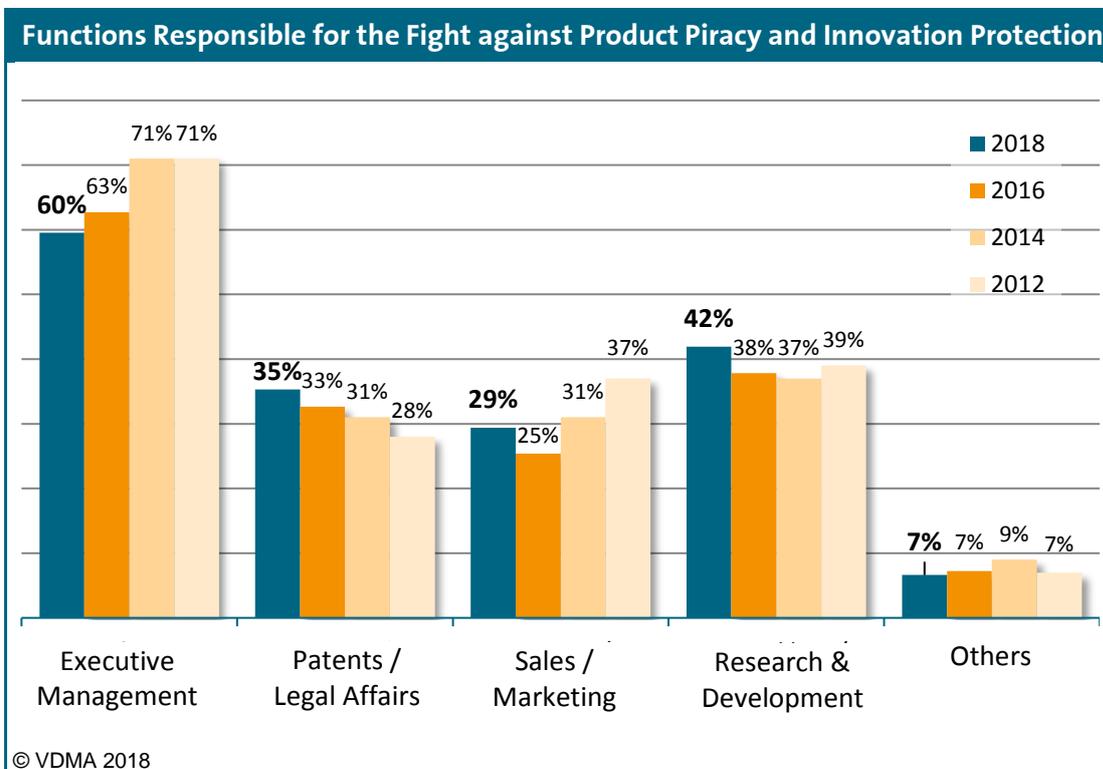
3 Responsibilities

This year’s study again shows that protecting innovations is a “management matter” for 61 of the participating companies.

Compared to previous years, more and more members of the VDMA are entrusting other functions with the fight against product piracy. A record number of mentions in this respect goes to R&D functions with 42 percent of cases, followed by legal and patent affairs offices with 34 percent. In fourth place, but also four percentage points above the score for 2016 at 29 percent, we find sales and marketing.

As shown in chapter 7 “Common Types of Counterfeits”, this seems to mirror the increase in the number of faked product designs or the copying of entire catalogues, brochures, and product images.

In 7 percent of cases, the responsibility for protecting innovations lies with specialized “Brand Protection” or “Product Management” teams.



Responsibility for the issue.

N=136 (2018, Multiple answers allowed)

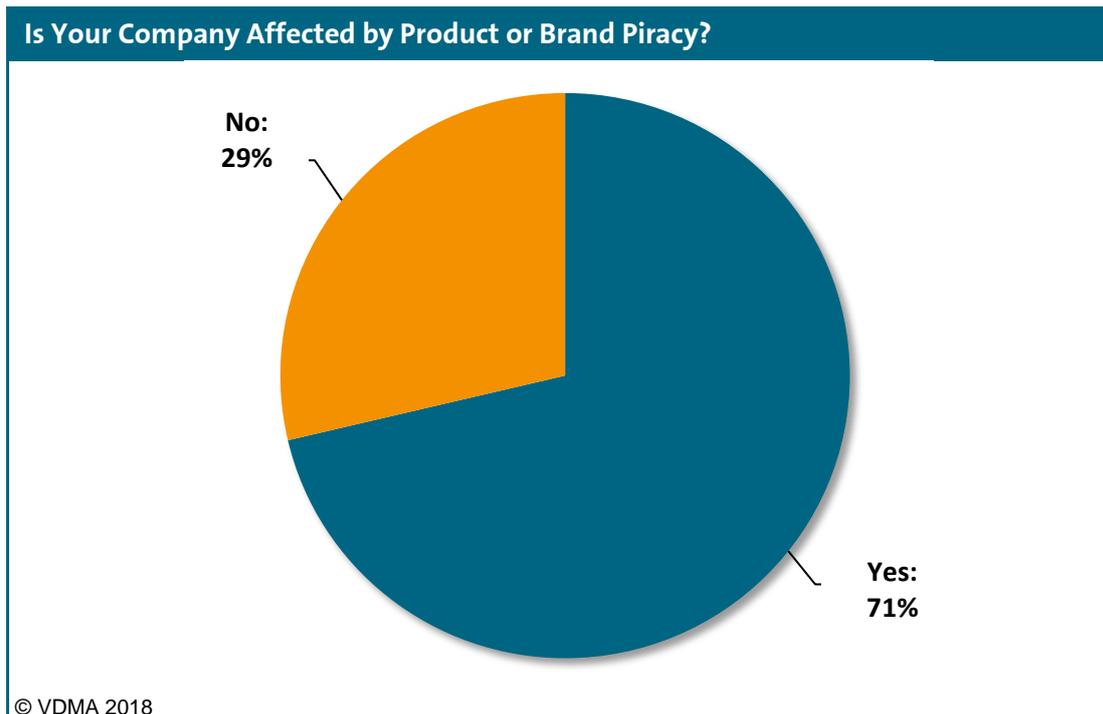
Note:

The results for the legal / patent affairs, sales / marketing, and research / development functions were displayed incorrectly in the 2016 study. This study corrects this mistake.

4 Threats and Victims

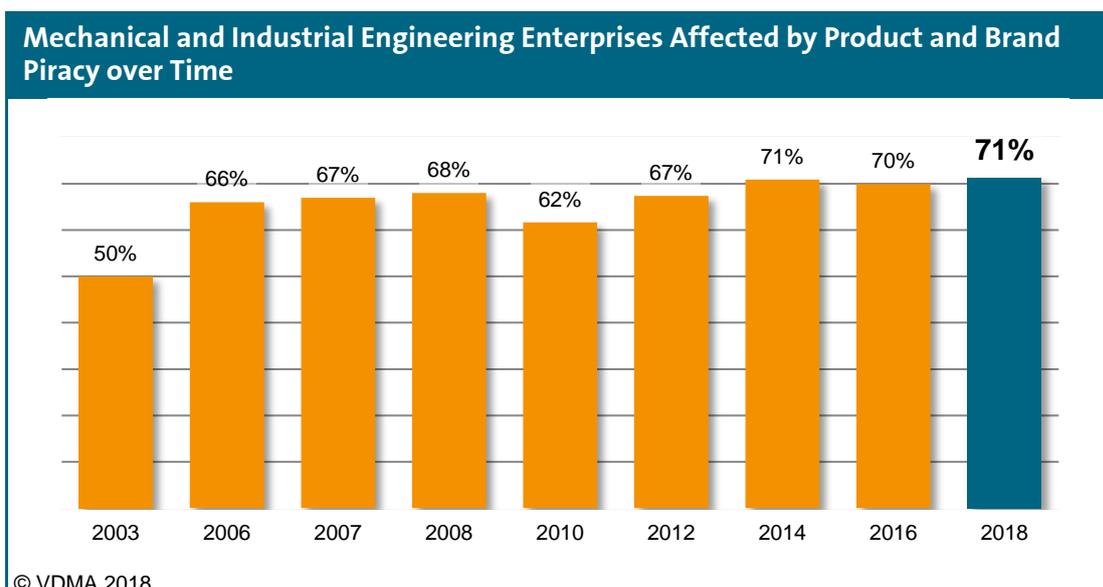
Product piracy is and continues to be an enormous threat for the innovative potential and competitiveness of the entire industry, which is visible in the unchangingly high number of companies affected by the problem (71 percent).

The intensive and far-reaching countermeasures taken by businesses and official authorities are coming up against the new challenges created by the global nature of communication, the changes brought about by Industrie 4.0, and the increasing motivation for companies to engage in counterfeiting.



Companies affected by product and brand piracy.

N=136



Number of companies affected compared to previous years.

N=136 (2018)

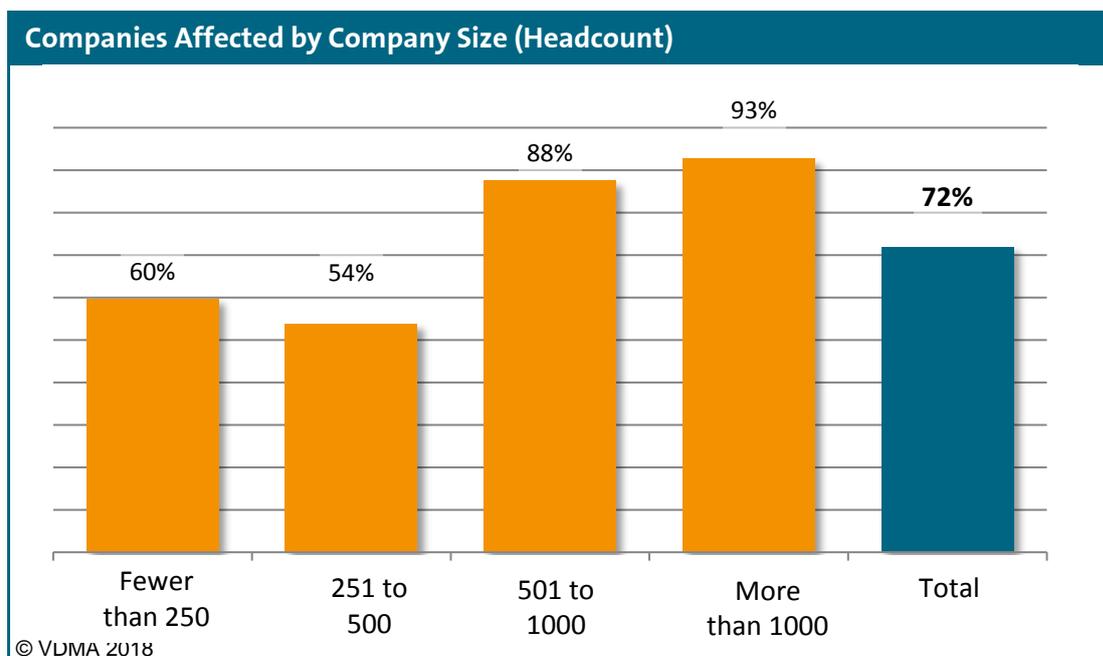
Looking at the historical data from the past 15 years, we can see that the efforts taken by enterprises, by the VDMA, and by Germany's federal government have not managed to reduce the influx of product and/or brand counterfeits.

This does not imply a direct conclusion about the effectiveness of these activities – at least the case numbers have not grown further over the last six years – but the high numbers of victims make it plain that these activities need to be reinforced in future, in particular on the political front.

Other interesting insights can be had when analysing the data about companies affected by product and/or brand piracy by company size or revenue.

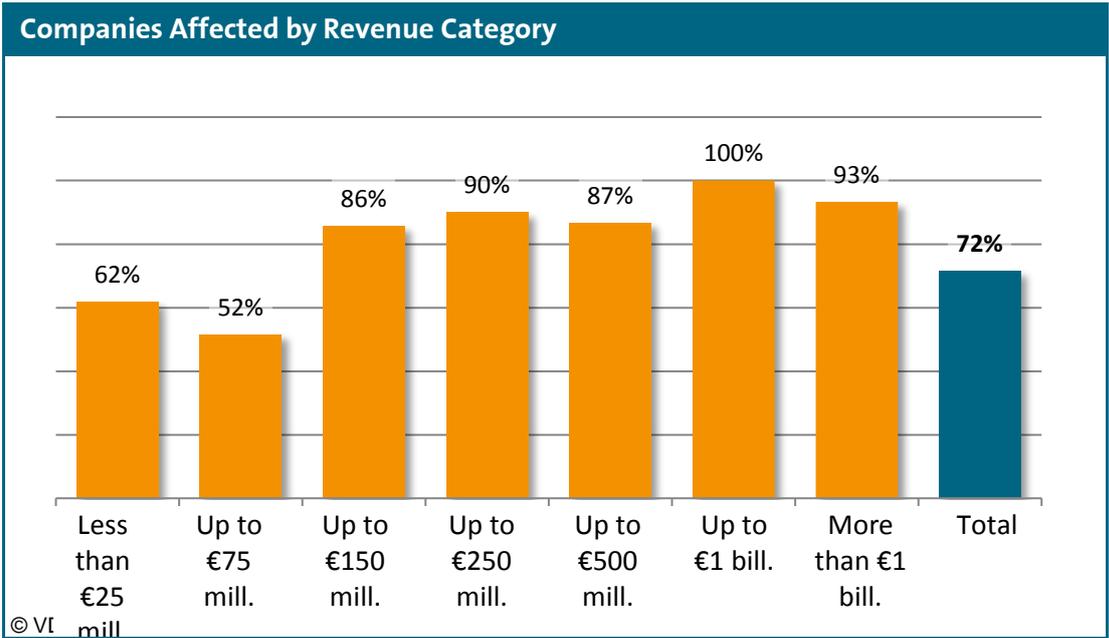
It becomes clear that the incentives for counterfeiters increase with the size of the company whose success they are trying to feed off. For companies with more than 500 employees or annual revenues of more than €75 million, the case numbers increase from 72 percent to an astronomical 90 percent.

While small and medium-sized enterprises are not affected to this extreme degree, there is still a worrying number of 60 or 54 percent of companies affected (for companies of less than 250 or less than 500 employees). This means that even among smaller companies, every second business will be victimized.



Companies affected by product and brand piracy by headcount.

N=135

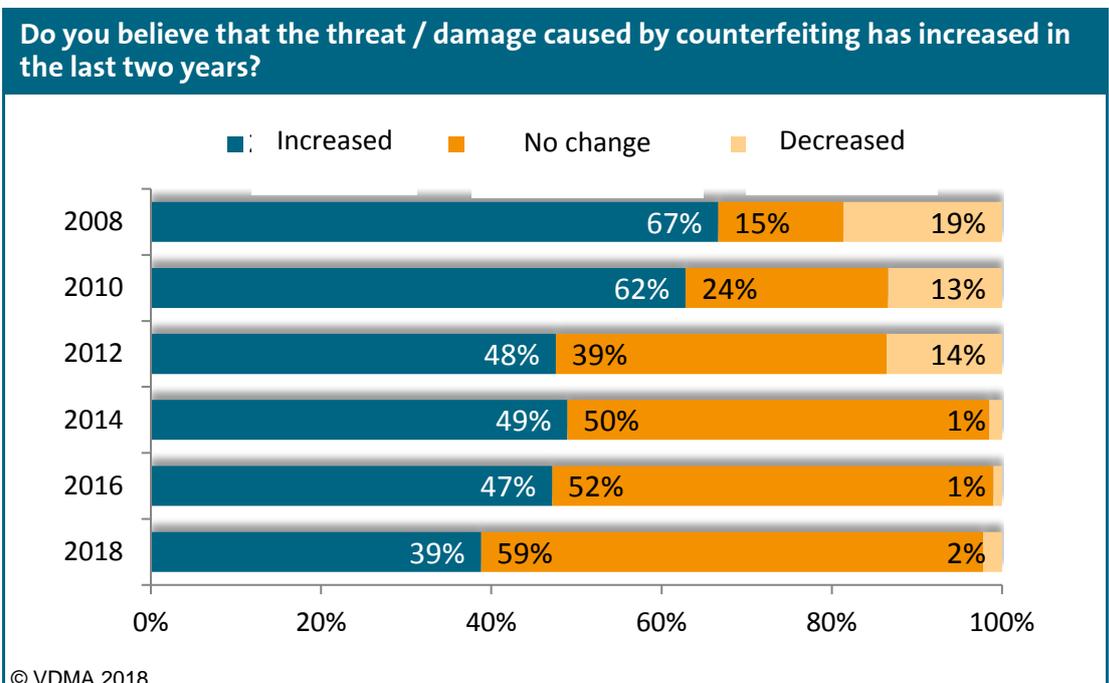


Companies affected by product and brand piracy by revenue category.

N=134

The study also explored the subjective assessment of the threat level over the last two years.

Compared to the past surveys, increasing numbers of respondents is moving from “increasing threat” to “unchanged”, now ranging respectively at 39 percent and 59 percent. This does not imply that the situation has improved – which only two percent of the participants believe – but only suggests that the problem has levelled out somewhat at a very high level.



Threat assessment.

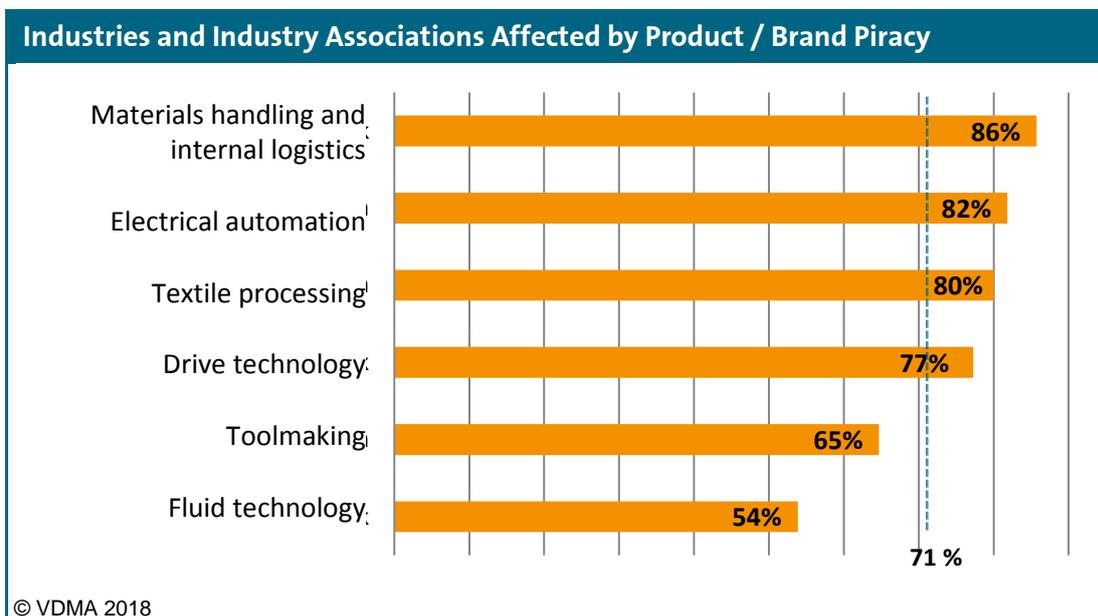
N=134 (2018)

5 Affected Industries and Associations

Given the comparatively small sample size for this year's study, there is no reliable data about the extent of the problem in the individual associations. The number of participants has fallen from 195 to 136, and reported membership in specific industries / industry associations has decreased from an average of 2.9 to 1.4 per respondent.

Of the 38 sectors of industry available, only ten have therefore passed the necessary threshold of 10 mentions,

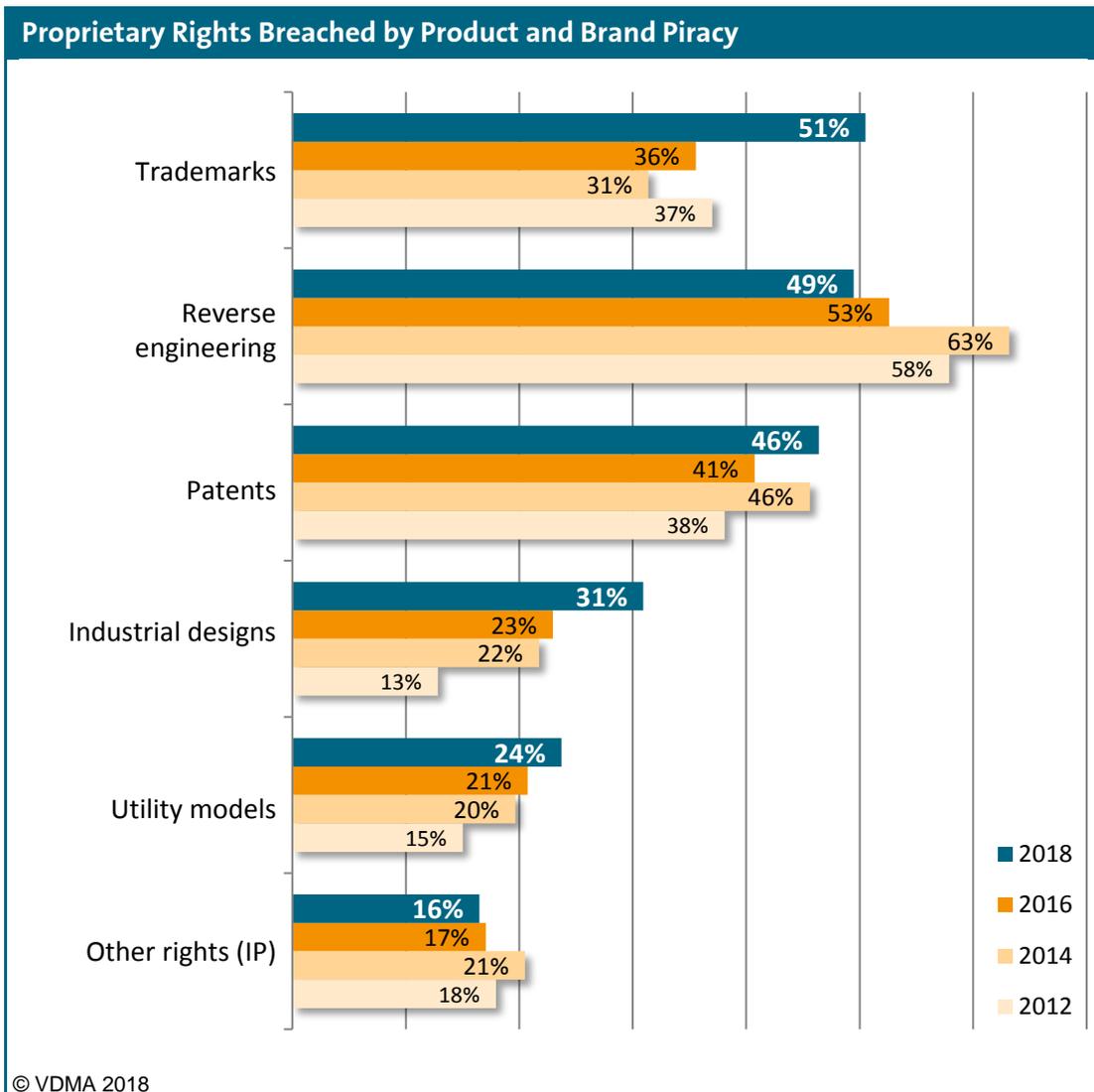
As a result, the *engines and systems, plastics and rubber machines, thermal processing, and agricultural engineering* sectors, leading the field in 2016, do not figure among the top 5 in this year's study.



Top victims of counterfeiters (industries and industry associations with more than 9 mentions) (in %)
N=136 (Multiple answers allowed)

6 Breaching Proprietary Rights

Asked about the types of rights infringed by counterfeiters, the respondents report a slight decrease in the number of direct product copies (from 53 to 49 percent). However, this needs to be qualified by looking at the increases in the other categories, especially the rapid growth in the number of infringed trademarks, leading the table with 51 percent). There is an evident change in the copying of industrial designs (31 percent) and utility models (24 percent), suggesting a move away from pure technical copies to the imitation of the product’s visual look and feel or even entire brands. This trend is also visible in chapter 7 “Common Types of Counterfeits”.



Breached proprietary rights.

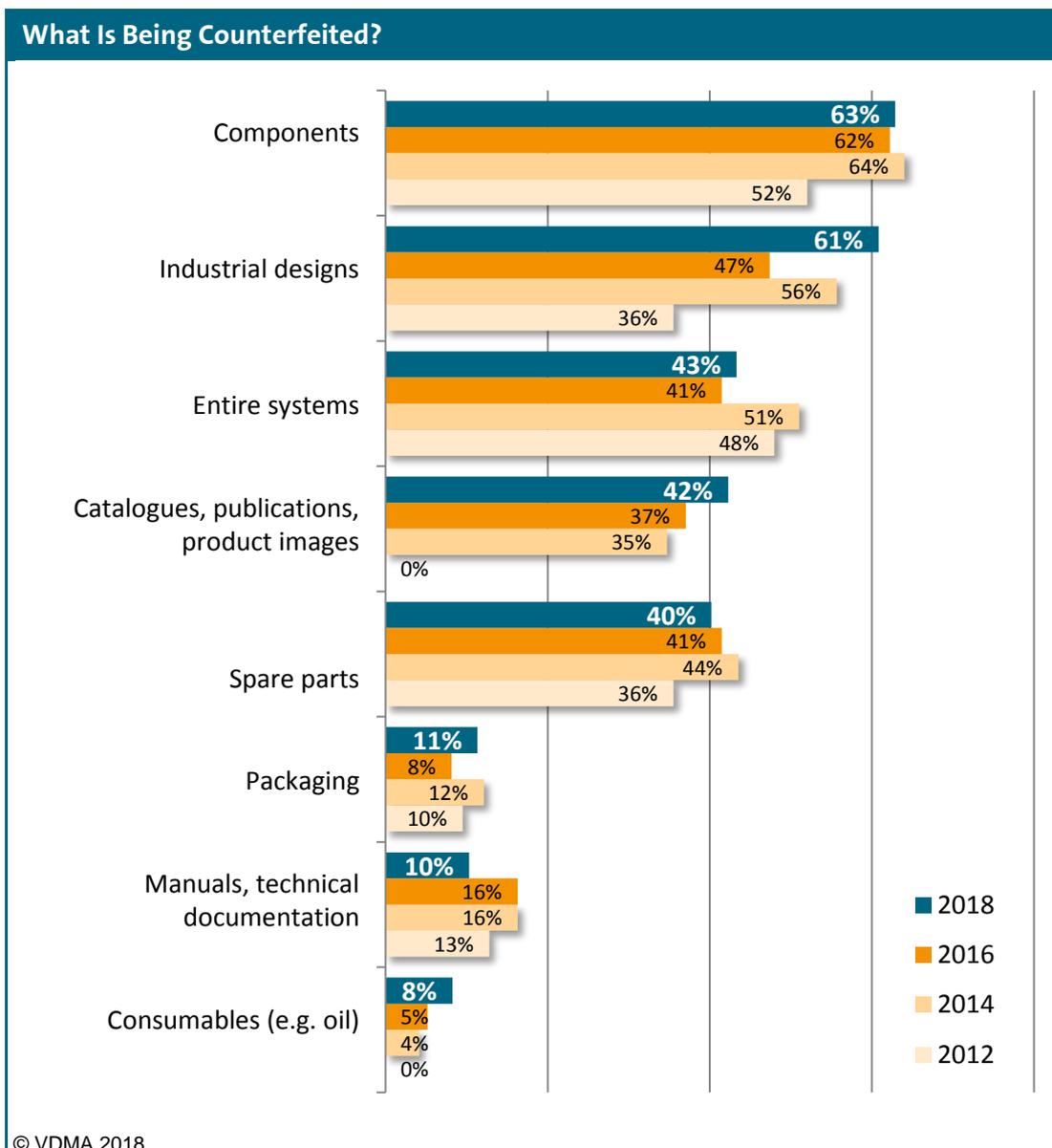
N=97 (2018, Multiple answers allowed)

7 Common Types of Counterfeits

The term “counterfeit” can refer to a vast range of different copies and imitations, as this year’s data again points out.

The most common target of counterfeiters is still the copying of product components (63 percent). With an increase of 14 percentage points to 61 percent, this is closely followed by the imitation of external designs, such as shape, colour, or patterns. Combined with the growing number of entire catalogues, brochures, or simple product images being copied (42 percent), this trend shows that counterfeiters want to tap into the good standing of the brand they are targeting.

While the number of complete counterfeits of machines or spare parts remains generally stable, there is now a ten percent drop in the number of user manuals or technical documents being copied.



Types of counterfeits.

N=97 (2018, Multiple answers allowed)

8 Counterfeiters' Sources of Information

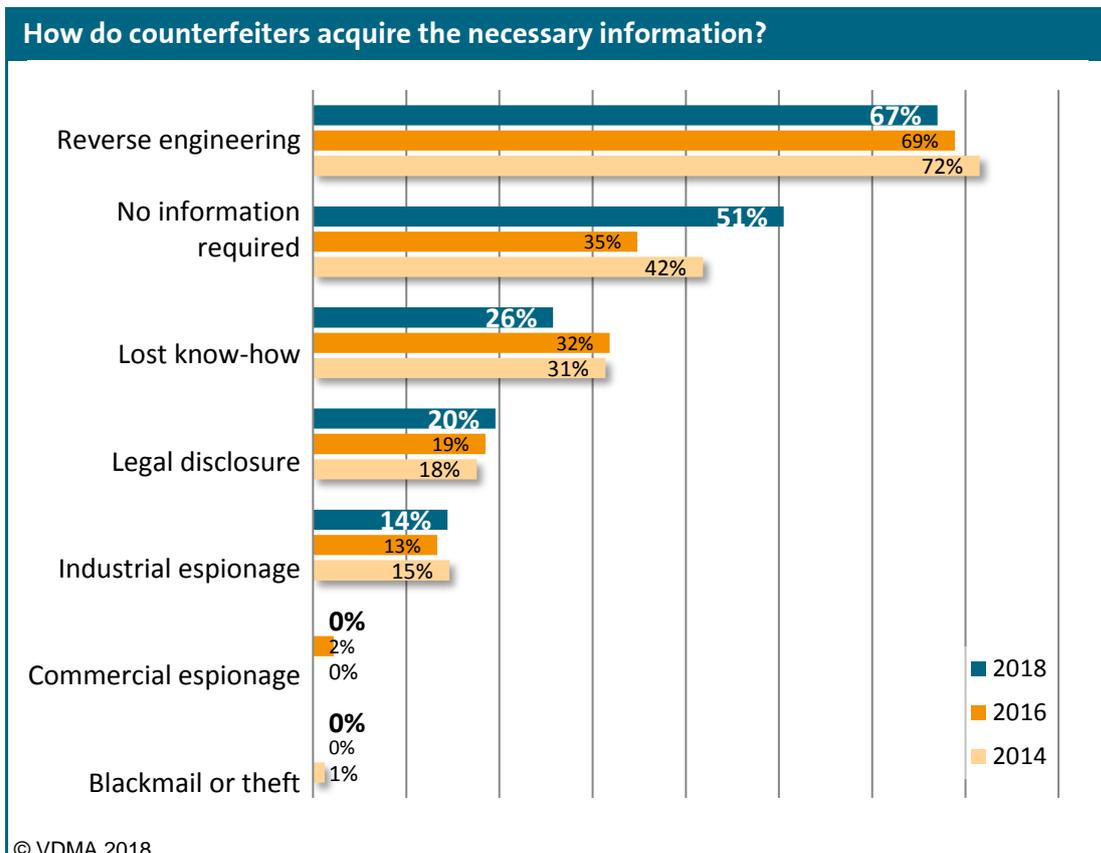
Beyond the information that is readily available in the public domain, counterfeiters often need specialized technical or commercial insider know-how in order to copy a product in a manner that makes it indeed resemble the original. With this in mind, we asked the participants to assess the likely sources for this leaked information.

With a minimal decrease to 67 percent, *reverse engineering* continues to be the main avenue for counterfeiters. Reverse engineering means the disassembling and analyzing of finished products and systems available in the market as a way of learning more about their functions, workings, and component parts. The simple act itself is not illegal. However, when technical protections are deliberately broken or circumvented, this changes immediately.

Around half of the respondents also believe that the counterfeit products they know of needed no special intelligence or know-how. This is a major increase of 16 percentage points to now 51 percent, and it matches the mentioned trend towards copied designs, imitations of the look and feel of products, or the illegal stealing of entire catalogues or product images.

The unplanned leaking of information, e.g. by employees leaving their jobs and taking information to suppliers or clients, is less relevant at a rate of 26 percent. About a quarter of all companies is affected by such leaks.

There is no significant change in the use of officially disclosed information or industrial espionage. The same goes for corporate espionage and other criminal activities, which no participant reported in this year's study.



Illicit sources of information.

N=97 (2018, Multiple answers allowed)

9 Counterfeiters and Their Backers

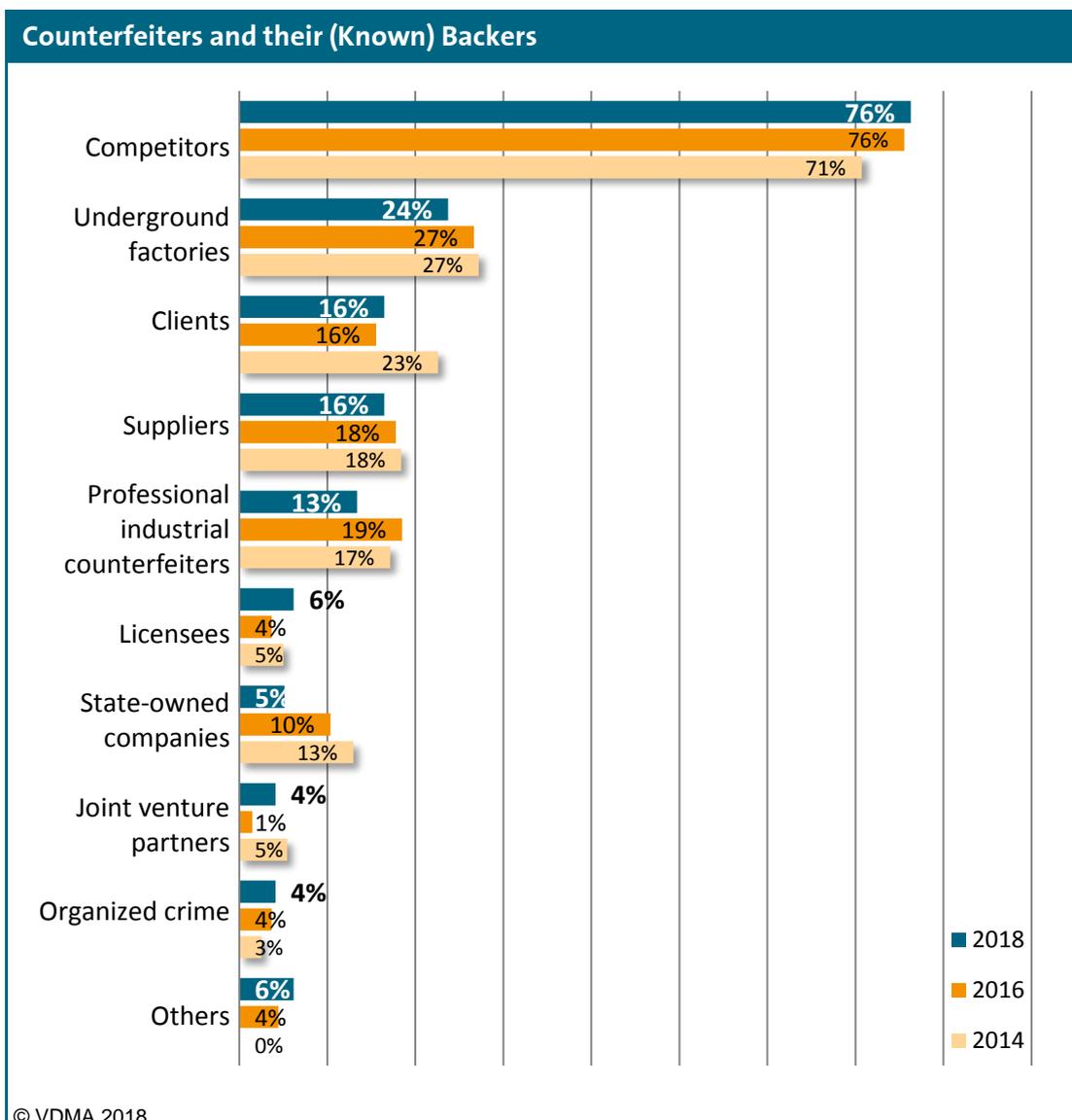
It comes as no surprise that competitors are named as the far and away most important backers of counterfeiters (with 76 percent of mentions).

There is a slight decrease (to 24 percent) for underground / backyard factories, followed by clients or suppliers. Their unchanged presence among the reported counterfeiters is a sad state of affairs for these essentially trusted partners of their victims.

There is a positive trend in that the number of state actors engaging in counterfeiting having been halved in the last two years (five percent). Joint venture partners are back at the numbers of 2014; combined with the figures for organized crime, such actors account for only one in every 25 counterfeiters.

The decrease in the presence of professional large-scale counterfeiters and the lesser involvement of state actors might indicate a rethinking and a slight improvement in the rule of law in this respect.

Former retailers or even former employees are also named as potential counterfeiters.



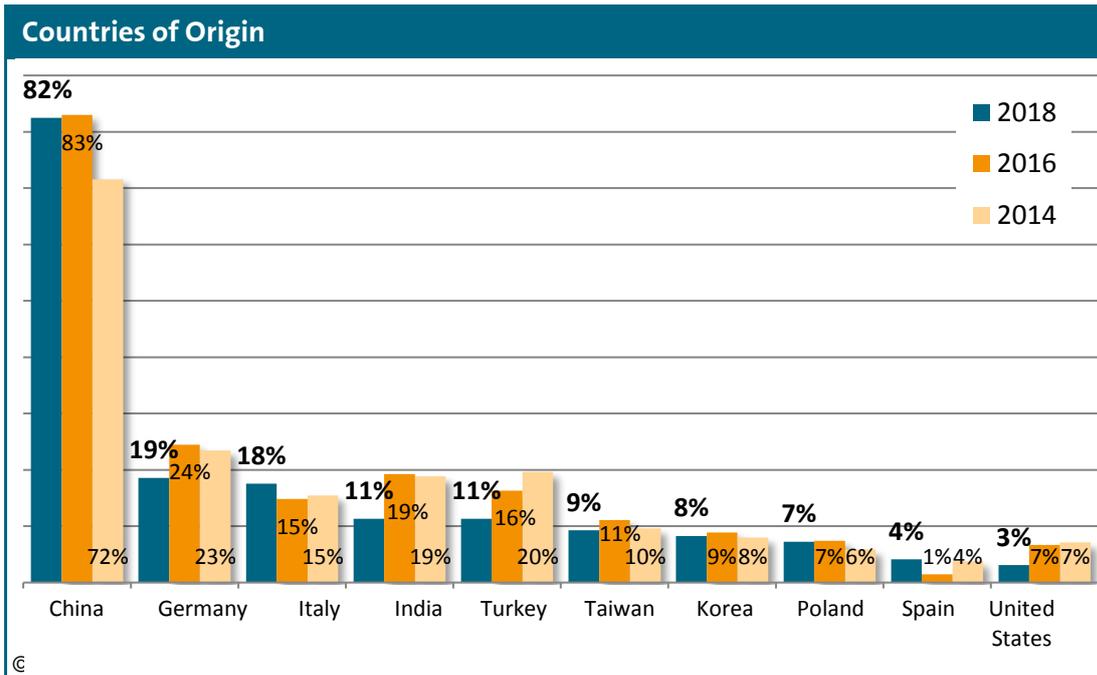
Counterfeiters and their backers.

N=97 (2018, Multiple answers allowed)

10 Origin and Distribution

The People’s Republic of China continues to be the largest producer of product and brand counterfeits by a far margin: more than 80 percent of companies are pointing the finger squarely at China.

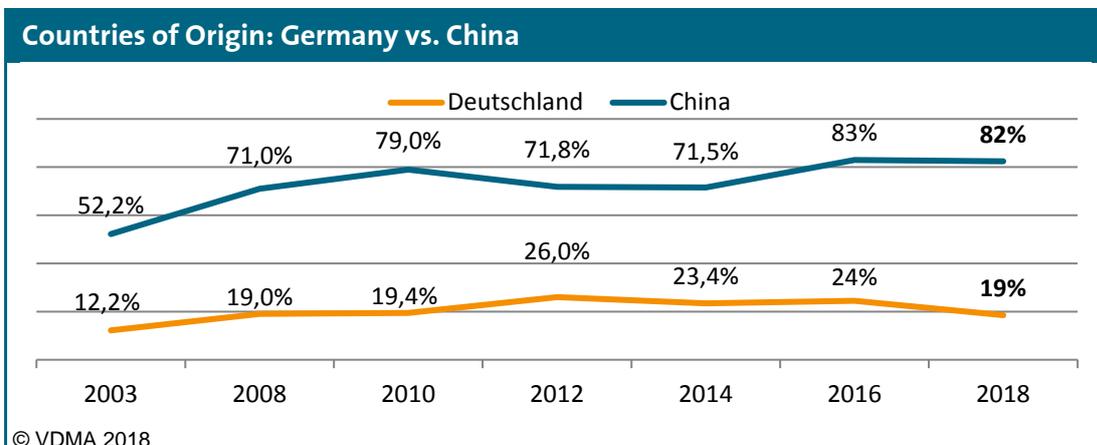
At a distance of more than 60 percentage points, the second and third-ranked countries of origin are Germany (with a slight decrease) and Italy (with a slight increase). After a drop of eight percentage point to 11 percent, India now holds a shared fourth place with Turkey. A newcomer to the top-10 is Spain.



Countries of origin, TOP 10 mention

N=97 (2018, multiple answers allowed)

A direct comparison of Germany and China shows that a significant number of companies reported both German and Chinese counterfeits already in 2008. Statistically speaking, 95 percent of the respondents in this study blame China and/or Germany for the problem of counterfeiting.

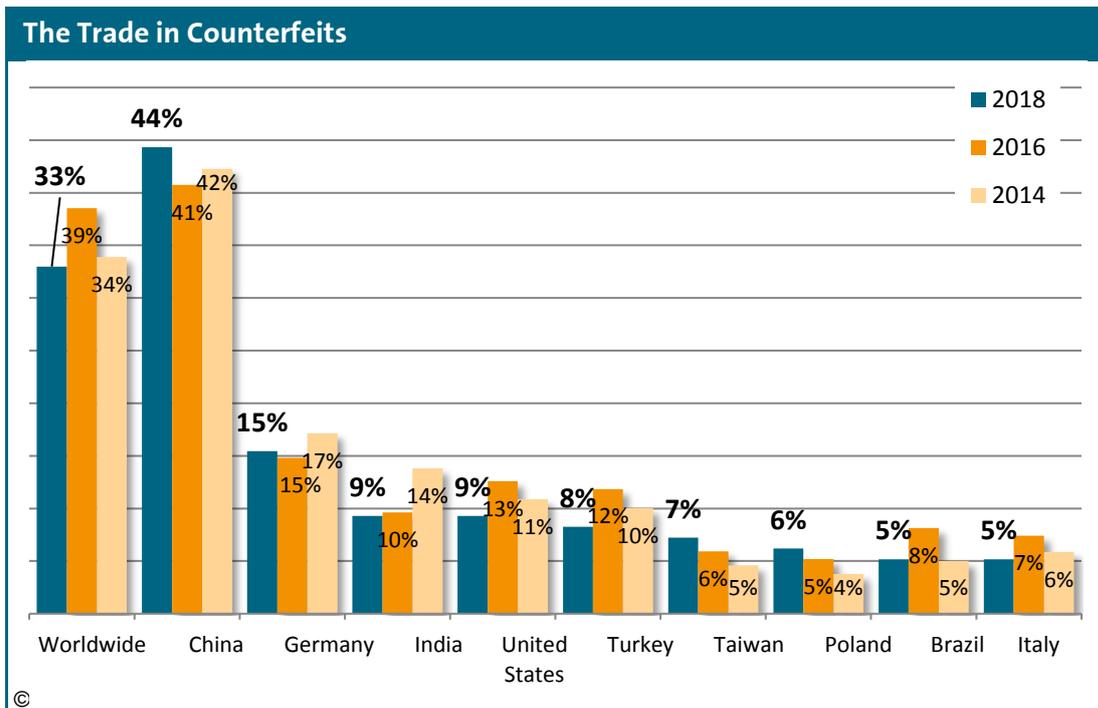


Comparing Germany and China

N=97 (2018, multiple answers allowed)

In the trade in counterfeits, the People’s Republic of China also holds the top spot with 44 percent as the largest individual market for fake goods. A third of all respondents reported an international trade in forged products, which is a pleasant, if slight improvement since the last study.

The third spot is occupied by German (15 percent) as the second-largest individual market, followed by India, the United States, Turkey, and Taiwan at relatively even numbers.



Target destinations, TOP 10 mentions

N=97 (multiple answers allowed)

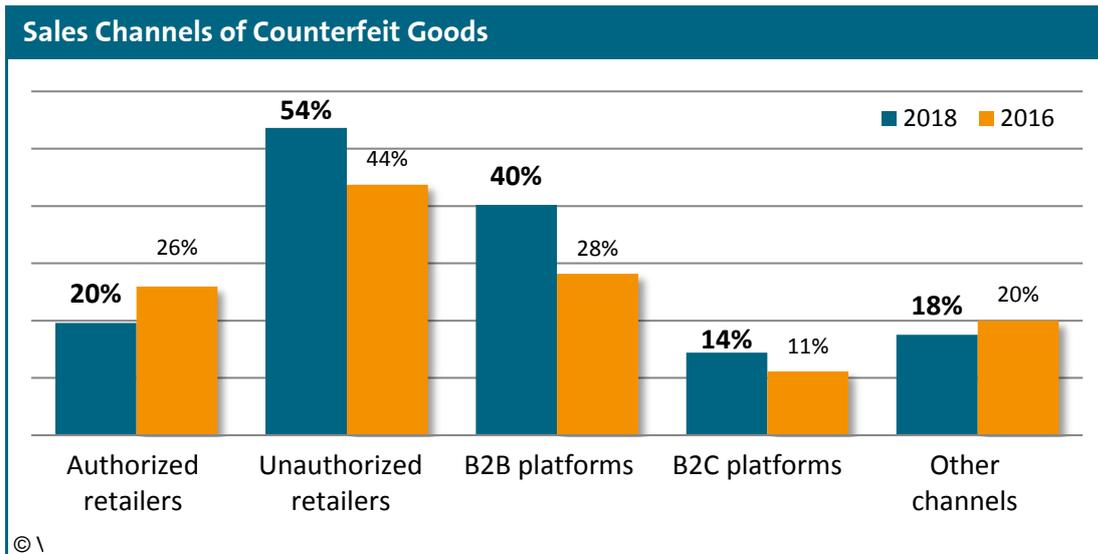
On top of the question of the target markets for counterfeits, this year’s study again asked about the sales channels themselves.

In more than half of all cases, the counterfeit products are traded by unauthorized retailers, which means a major increase of 10 percentage points from the last study. Another substantial increase to a figure of 40 percent can be seen with online B2B platforms like *Alibaba*, *ec21*, *1688*, or *ezplaza*, which enable a global trade in counterfeits.

B2C platforms like *Amazon*, *Ebay*, or *taobao* play a lesser role with 14 percent of mentions.

Compared to the named sales channels, the study also asked about the extent to which contract retailers have been known to sell both original and fake products. Fortunately, there is a decrease in the number of such cases, and this channel – so important for OEMs – accounts for only one in five cases.

Asked about “other sellers”, the participants almost unanimously mention the counterfeiters themselves. These tend to rely in particular on direct sales, often combined with a fake internet presence and emails (spam mails to clients) or exhibition activities to sell their illicit products.



Sales channels of counterfeits.

N=97 (2018, multiple answers allowed)

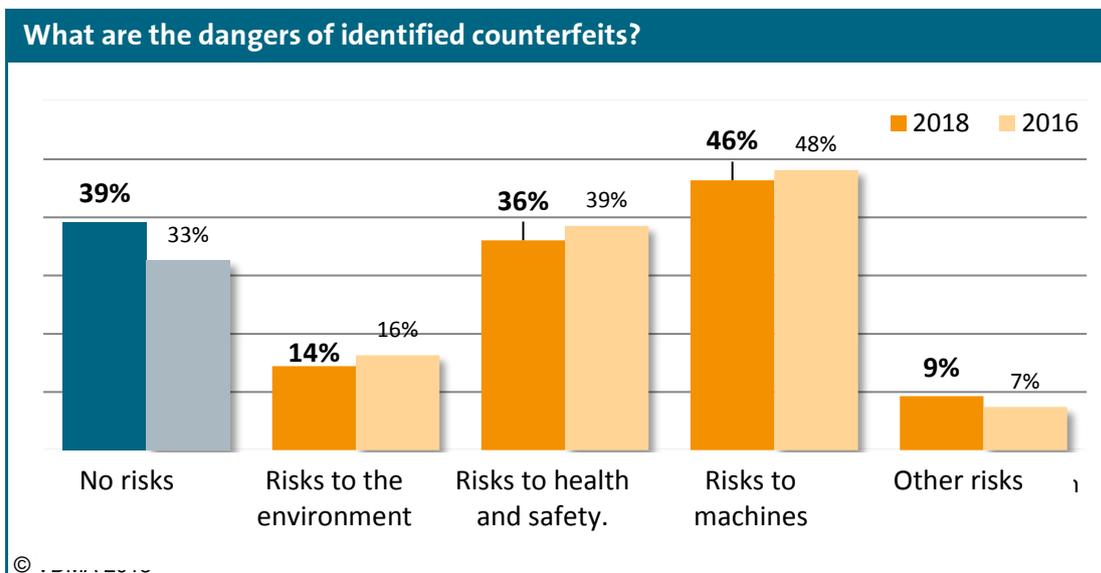
11 Dangers of Counterfeits

The 2016 study for the first time asked about the potential dangers of counterfeits, e.g. causing harm with poor, lacking, or faulty safety features or low-quality parts.

Luckily from the user's point of view, all items in this survey show a slight decrease in the number of reported dangers. As a result, there is a six percentage point increase for "no risk" mentions at 39 percent. However, this also implies that there is indeed a risk attached to the other counterfeits. Apart from the 46 percent of cases in which the counterfeit might cause serious damage to machines or industrial facilities – almost every second counterfeit – there is also a still shocking risk of harm to life and limb, with 36 percent of mentions. The risk to the environment should also not be underestimated at 14 percent.

Such risks to people and the environment can be subsumed under the term "safety". Every second counterfeit product should therefore be considered a safety problem.

Another potential danger that was mentioned by several respondents is the potential impact on a company's reputation caused by the poor reliability and low quality of forged products taken to be the real deal.



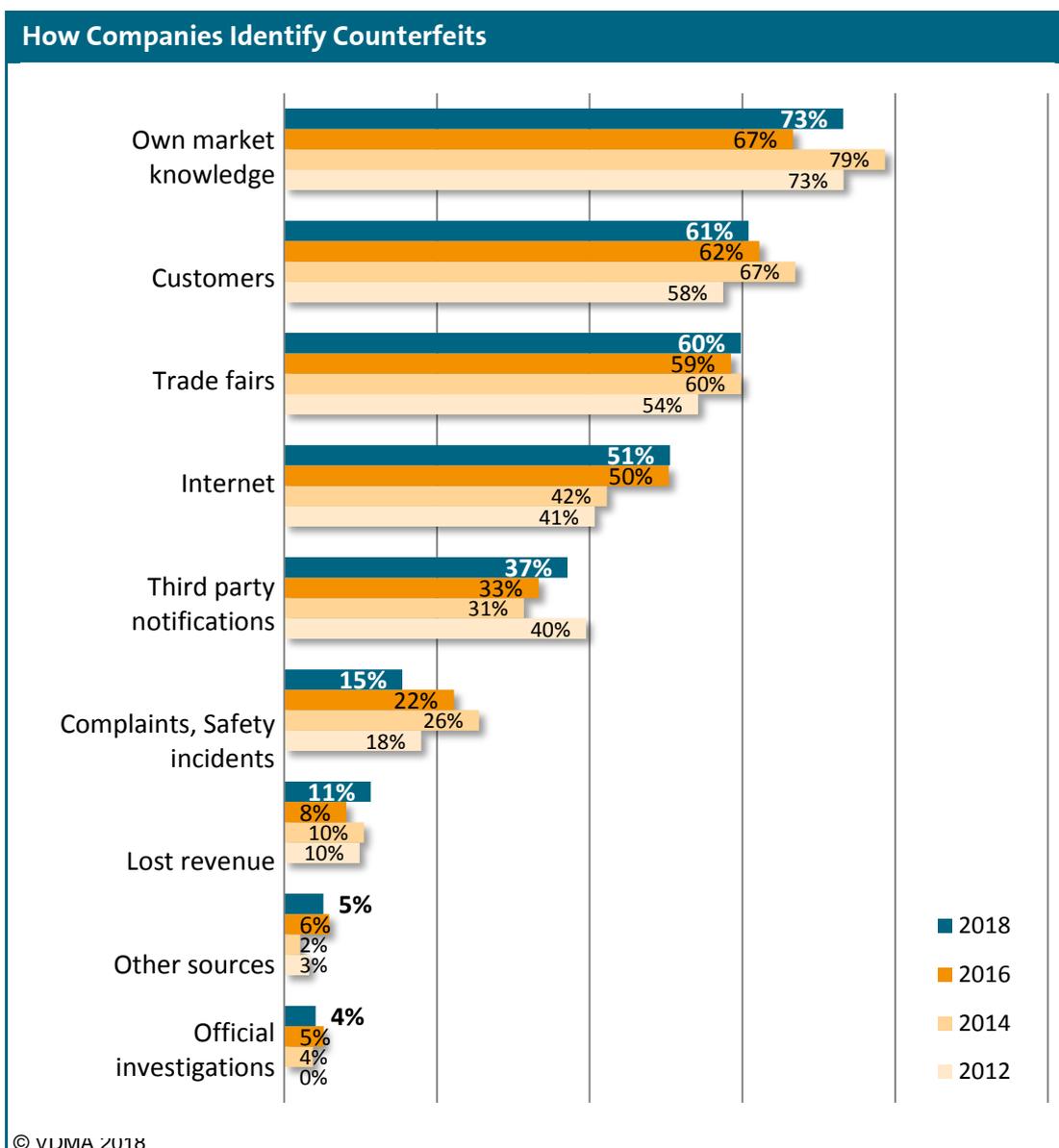
The potential risks of identified counterfeits.

N=97 (2018, multiple answers allowed)

With the safe and reliable operation of machines and industrial facilities in mind, companies therefore do well to make sure that no counterfeits enter their businesses. This applies in particular to matters of health and safety and to financial concerns, as the potential loss of manpower, plant downtimes, or liability costs could lead to severe financial or image difficulties.

12 Discovery of Counterfeits

The ways in which counterfeits are discovered have not really changed over the years. The prime avenue here is own market knowledge, named by 73 percent of respondents. This is followed by information from clients (61 percent) and observations made at exhibitions (60 percent). There are also no major changes in the use of internet research, third-party information, lost sales, or information from official investigators. There is still great potential in the latter case in particular, which relates to the use of public information sources – e.g. ZGR online – and to the need for political action in this area. The topic will be addressed in more detail in chapter 16. The only noteworthy change is the number of counterfeits discovered by warranty claims or safety problems, which has decreased by seven percentage points to 15 percent.



How companies identify counterfeits.

N=97 (2018, multiple answers allowed)

13 Responses to Identified Counterfeits

Once a counterfeit product has been discovered, 41 percent of the affected companies would address the matter out of court, going via their legal representatives, investigating the issue in person, or notifying their clients. The VDMA agrees that this should be the first response. Experience suggests that this will lead to an immediate improvement, as many counterfeiters prefer obscurity and do not want to be named and shamed.

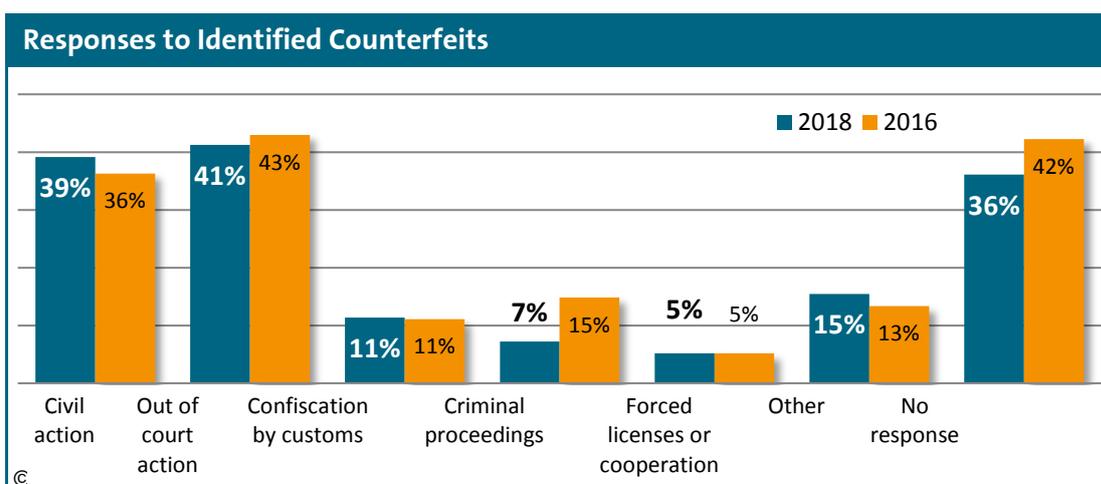
Civil actions are an almost as frequent countermeasure (39 percent). Even with clear legal backing, this can be a lengthy and costly process, which is why the VDMA recommends evaluating out-of-court options first.

In around a third of cases (36 percent), companies do not respond at all to counterfeits. Looking at the data in terms of different company sizes, it becomes clear that this applies mostly to smaller or medium-sized companies. Apart from the problem of identifying the producers and sellers of counterfeits in a legally sound manner, their victims might consider any vigorous response to be financially untenable or at least disproportionately costly. The general rule is: The larger the company, the more likely and more extensive its response will be. For instance, forced licensing or forced cooperations are an option that is only available to companies with more than 1000 employees.

The large number of possible measures shows that, again distinguishing by company size, smaller and medium-sized enterprises are often forced to use alternative avenues or only just beginning to establish procedures for handling counterfeiting cases.

This can include better patent or industrial design protections, proactive communication with clients, or injunctions in the case of trade fair organizers.

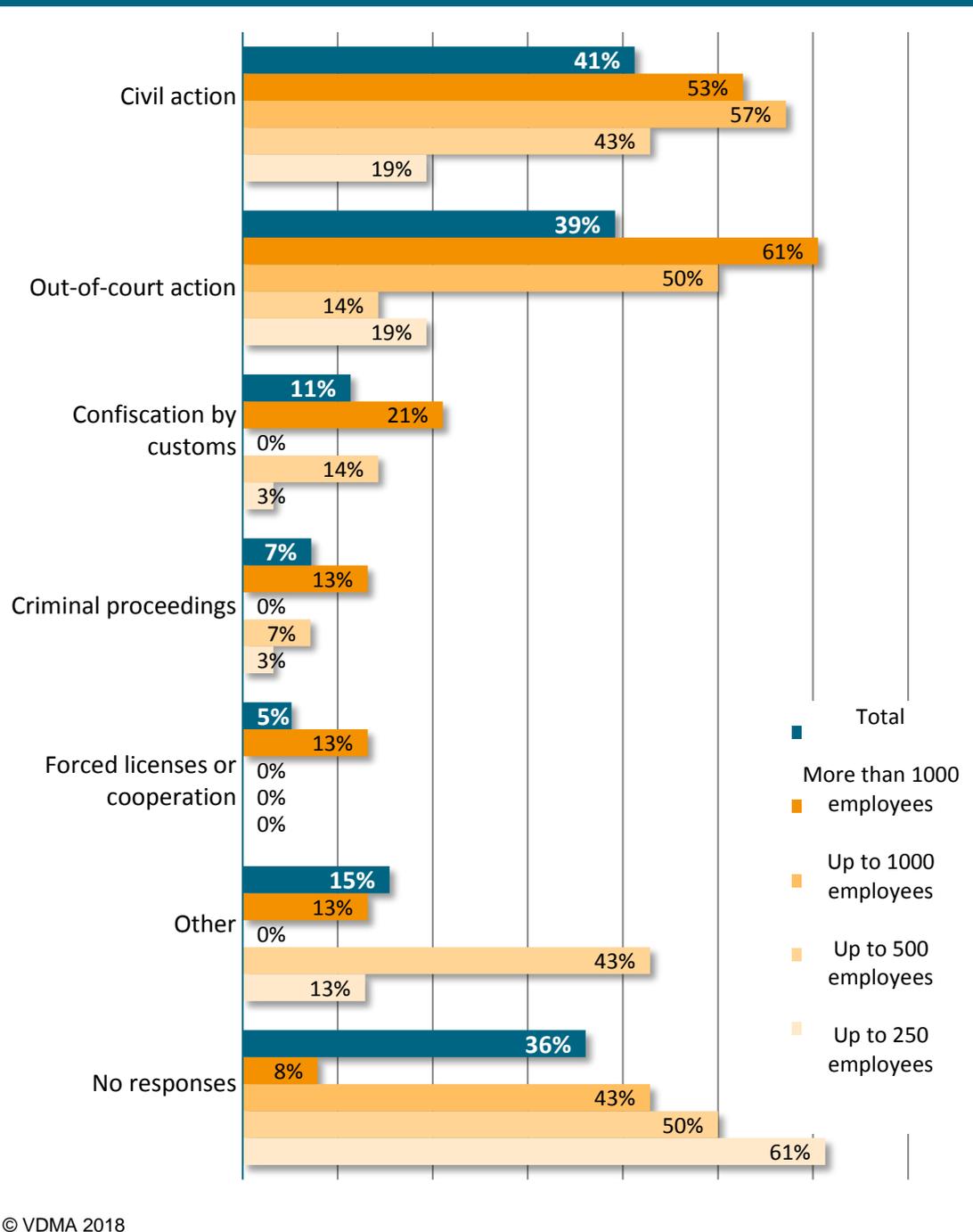
We would draw attention to the fact that VDMA members are making good use of the free advice by the VDMA's departments when it comes to dealing with counterfeiters or introducing product protection measures.



Responses to identified counterfeits.

N=97 (2018, multiple answers allowed)

Response to Identified Counterfeits by Company Size



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Response to identified counterfeits, by company size.

N=97 (multiple answers allowed)

14 Preventative Measures

Irrespective of whether companies are already victims of product pirates or not, many are taking a range of measures as prevention. Today, nine out of ten companies would register their intellectual property rights (trademarks, patents etc.), while less than two thirds put their trust in prevention by secrecy or in the selection of the right cooperation partners. Surprisingly, these two options – and the use of technical copy protection measures – are being used less than before (a decrease of approx. eight percentage points). Only every fifth company now relies on copy protections. This is again a reflection of the trend that counterfeiters are moving beyond technical product imitations and towards design counterfeits, which are hard or virtually impossible to prevent with technical means alone.

Unfortunately, the hoped-for increase in the take-up of *ZGR Online*² has not yet materialized. This might be due to slow processes, inefficiencies, or other reasons, but this lies outside of the scope of this study. However, companies would do well to check *ZGR Online* to protect themselves against counterfeits when importing from non-EU countries.

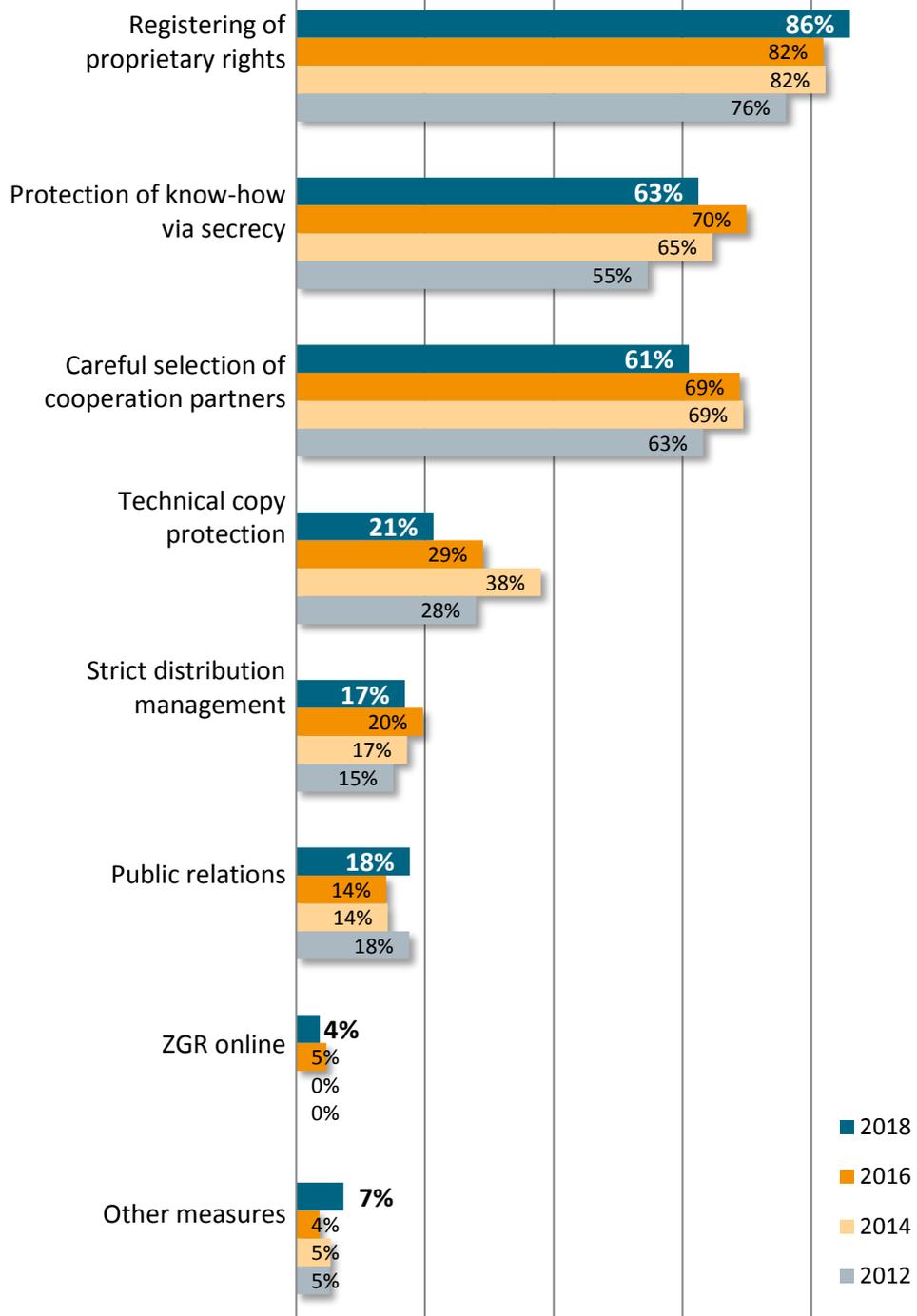
The study's participants name a rigorous response to identified counterfeiters as an example for others as a possible preventative measure. However, the sheer effort required for such stringent actions means that this avenue is restricted mostly to large corporate actors.

When distinguishing between companies who have already been the victims of product pirates and those who have not, there seems to be no obvious difference in their prevention strategies.

Companies not yet affected by the problem tend to rely more on secrecy, but less on technical copy protections or the strict management of product distribution. This can be due to the natural uptick in the interest in preventative measures once one has become a victim, which is particularly obvious in public relations efforts: No company not yet affected by counterfeiters is active in this arena, whereas every fourth actual victim is pursuing information campaigns and communications with clients.

² http://www.zoll.de/DE/Fachthemen/Verbote-Beschaenkungen/Gewerblicher-Rechtsschutz/Information-ZGR-online/information-zgr-online_node.html

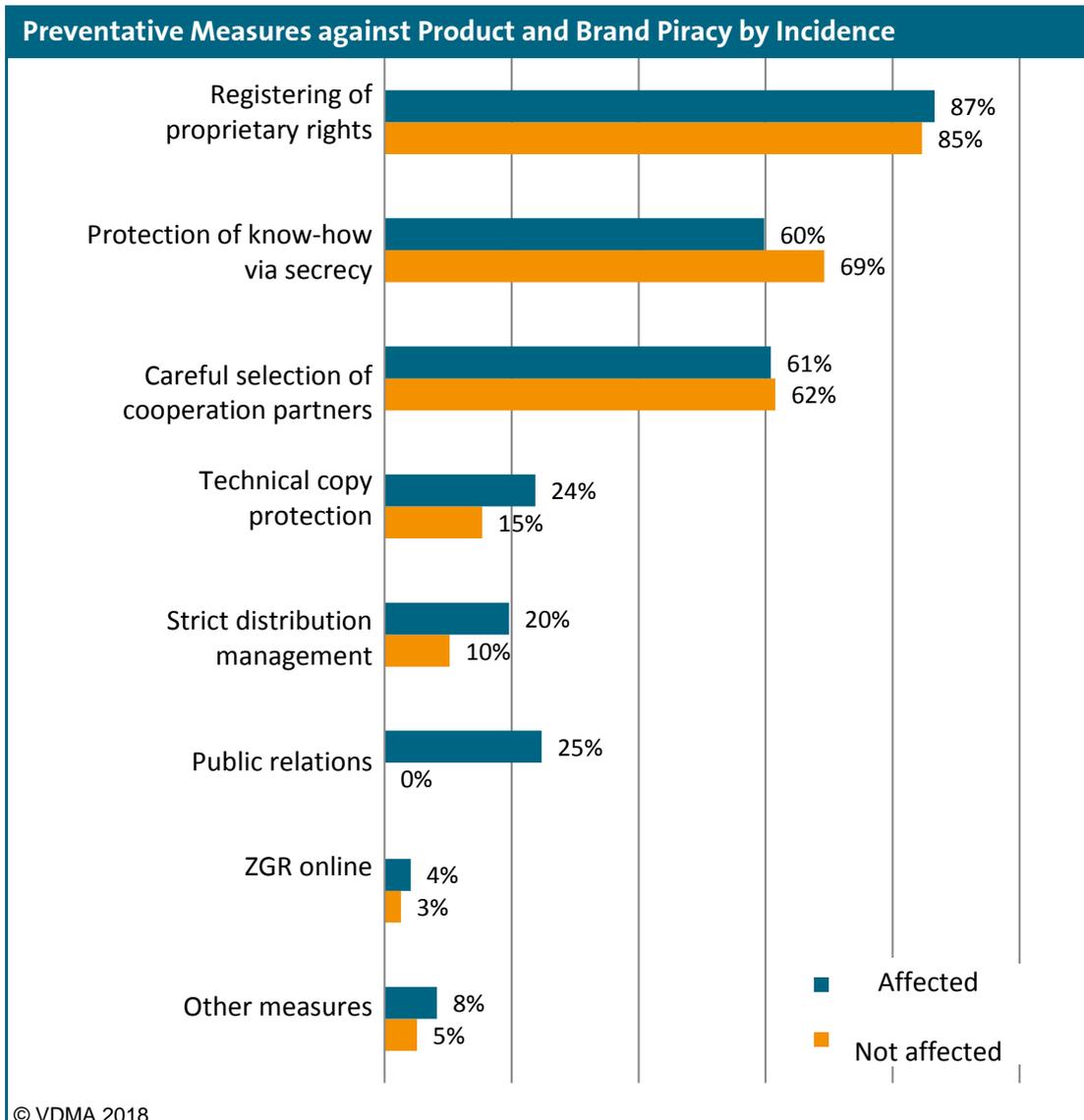
Preventative Measures against Product and Brand Piracy



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Use of preventative measures on average.

N=136 (2018, multiple answers allowed)



Preventative measures by incidence.

N=97/39 (2018, multiple answers allowed)

15 Damage Caused

This chapter investigates the question of the estimated damages caused by product and brand pirates. The self-reported figures do not relate to pure revenue losses, but also potential after-effects, such as the costs of image problems, illicit warranty claims, liability costs, or other such factors (reported in percentage figures).

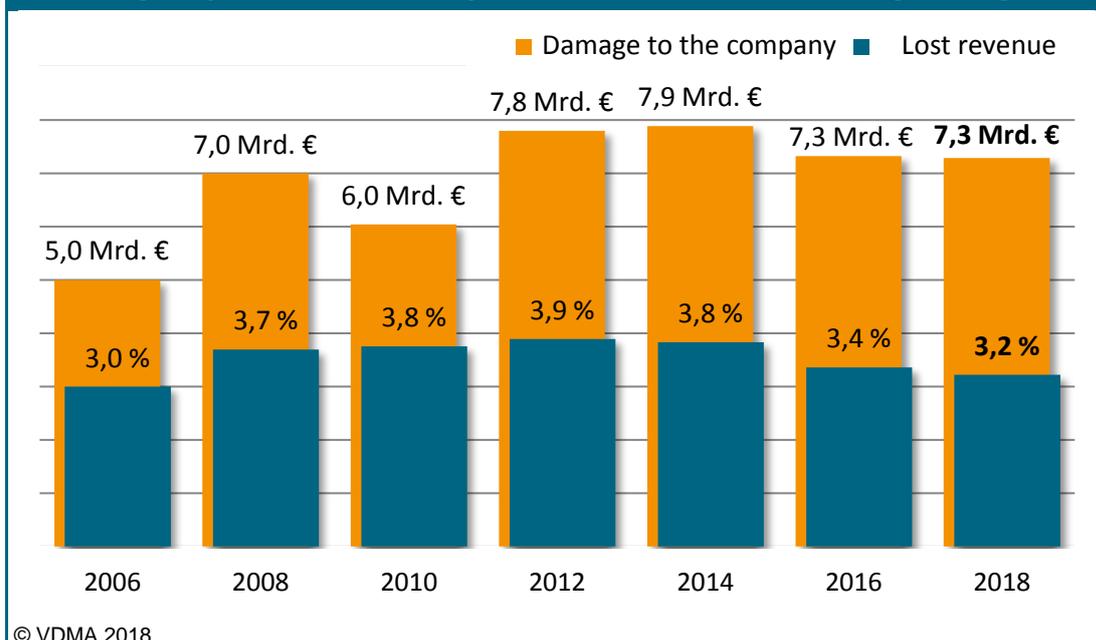
Taking the reported overall annual revenue³ of Germany's mechanical and industrial engineering sector, we can calculate the absolute damages caused by product and brand piracy. Our regular surveys and analyses allow us a good sense for how the scale of the problem has changed over time.

The estimated damage to Germany's mechanical and industrial engineering industry in 2017 has decreased to 3.2 percent. However, as annual revenues overall have increased, the damage in absolute figures remains at a stable □7.3 billion. This would equate approx. 33000 jobs in the sector.

As the average loss in the industry was 3.4 percent in the financial year 2015, we are witnessing a decrease for the third time running since 2012. This is the lowest amount since the start of our records in 2006.

The relative drop also shows that we need to go beyond the percentage likelihood of falling prey to product pirates – which remains at an all-time high of 71 percent – to understand how much revenue is actually lost to the issue.

Percentage Impact of Product Piracy in Mechanical and Industrial Engineering

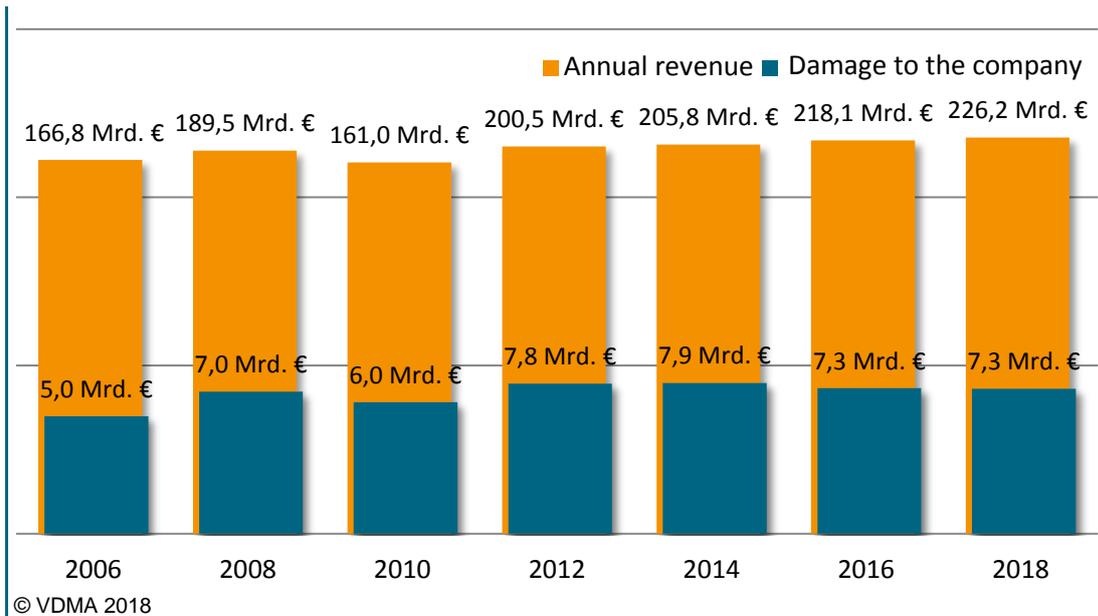


Damage to companies in EUR and revenue loss in percent caused by product piracy in Germany

N=136 (2018)

Absolute Impact of Product Piracy in Mechanical and Industrial Engineering

³ Source: Federal Statistical Office/VDMA, companies with more than 50 employees



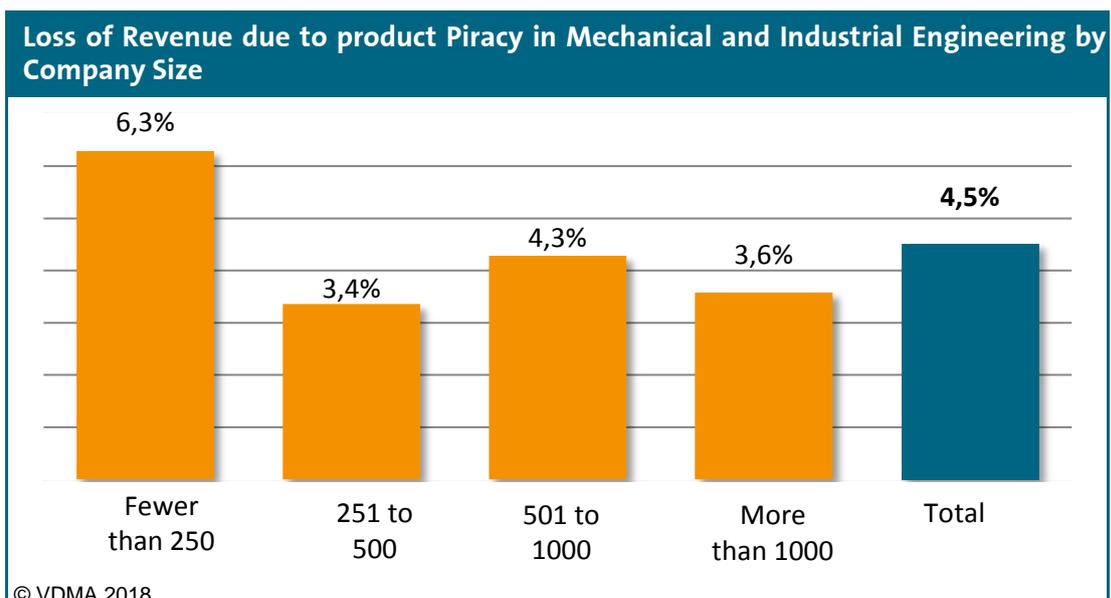
Industry revenue (previous year) and the impact of product piracy in Germany

N=136 (2018)

However, the figure of 3.2 percent only reflects the overall average. This means that the figure not only includes companies affected by the problem, but also companies who did not suffer from counterfeiters in the years 2016 and 2017.

When one includes only the companies that report actual losses due to product piracy, the average impact on revenues is naturally higher, reaching an average of 4.5 percent.

Distinguishing by company size, it becomes apparent that small to medium-sized enterprises are suffering disproportionately from product piracy. For companies employing fewer than 250 people, this reaches a very high 6.3 percent.

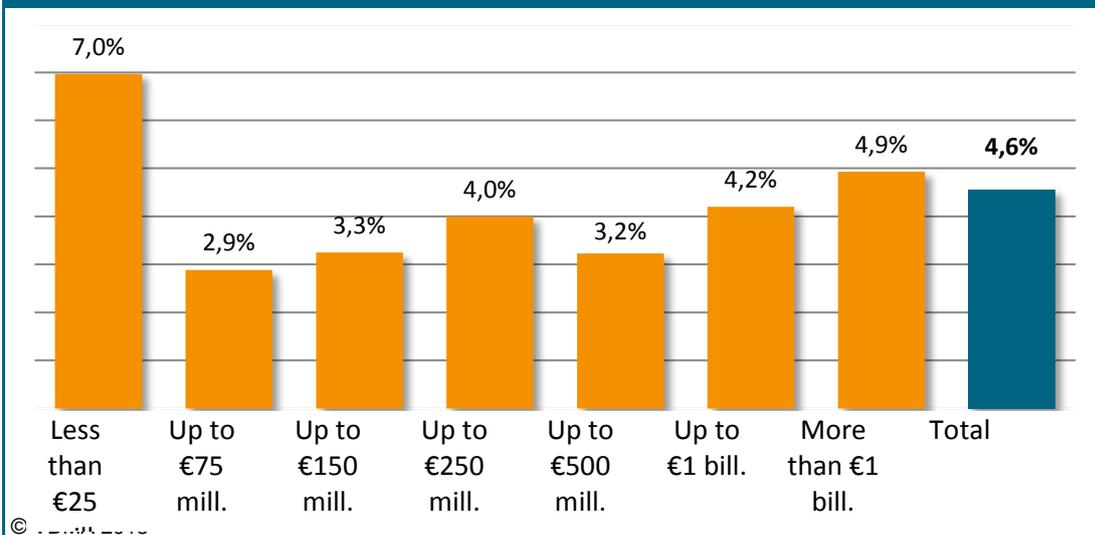


Revenue lost to product piracy in Germany, by company size (in percent). (only affected enterprises)

N=97

Taking annual revenue as the frame of reference, one can again see that enterprises with less than 25 million in annual revenue are suffering most from revenue lost due to product piracy.

The Impact of Product Piracy by Revenue Categories



Revenue lost to product piracy in Germany, by categories (in percent).
(only affected enterprises)

N=96

16 Politics and Exhibitions

This year's study again invited the participants to voice their opinions about the general conditions in the fight against product piracy.

Specifically, we wanted to know whether companies consider the legal protections to be sufficient and whether they are satisfied with the support they are receiving from state agencies – e.g. in criminal investigations – and from exhibition organizers in Germany and abroad.

Although there is indeed a slight improvement in general satisfaction with the legal conditions, only 58 percent of respondents consider the protections afforded to them to be sufficient.

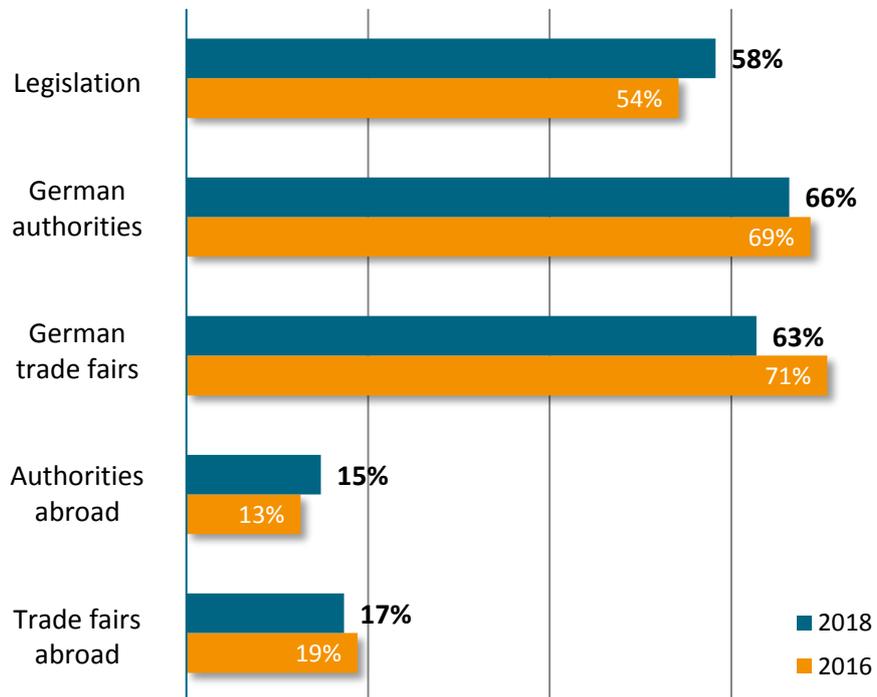
The comments on the subject suggest that enterprises that do not consider the legal situation satisfactory are referring almost exclusively to the lacking or inadequate international agreements, while they tend to be happy with the situation in Germany or the European Union. This concerns China in particular and the opportunity for legal recourse in the country. There were also several mentions of a need for more severe penalties, also in Germany and the EU, which would include criminal damages, liability for legal costs, or bans for known counterfeiters from practice.

Concerning the support received from official authorities and fair organizers, the picture is again that around two thirds of all companies have had good experiences with German authorities and exhibition organizers, but only one in every eight companies has the same positive view of the situation on the international level. The greatest grievance here is the poor enforcement of laws, again leading to a call for tougher penalties and more bilateral agreements to enforce existing property rights.

The most frequent criticism is the great need for improvement in cooperation with exhibition organizers when it comes to counterfeiters at industry expos. There have been reports of raids on possible counterfeiters being allowed only until the official opening of the fair, after which no response would be possible anymore if other counterfeiters are identified. Even known counterfeiters are not being banned from expos, as the organizers are worried about their business.

More positive comments relate to the experience of working with German customs, which is being praised for its confiscation of forged products from China, even though this is less effective when it comes to imports from within the European Union.

Are the conditions appropriate for the fight against product piracy?



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Assessing the response against product piracy.

N=127 (2018)

17 VDMA Taking Action

The VDMA has long pursued a broad-ranging strategy and a barrage of measures against product and brand piracy.

In 2007, the joint initiative “Choose the Original – Choose Success” was launched with the support of many other European associations. The aim of the initiative was to create awareness among clients and to encourage them to choose original products. The member companies had the opportunity to advertise their products with positive statements about the originals’ qualities.

On the initiative of the VDMA, ten research projects on technical measures were conducted between 2008 and 2011 with the support of the Federal Ministry of Education and Research and a total research budget of almost €30 million. The results of these projects are in the public domain and can be accessed via www.conimit.de.

As part of its commitment to furthering product protection innovations in mechanical engineering, the VDMA established the dedicated Working Group on Product and Know-How Protection (AG Protect-ing) in 2010. After years of successful contributions to the field, the working group was merged with the “Industrial Property Rights” working group in 2016. In its new incarnation, the working group offers interested members of the VDMA access to the newest trends in industrial property rights and a forum for sharing their experiences in the area.

Legal Measures

For most companies, legal protections are the first line of defence against product piracy. We provide information about legal means of protecting innovations with our publications (e.g. “Strategies against Piracy in China) and lectures as well as contract templates for our members. The VDMA is available for personal discussions of problematic cases and can help with registering proprietary rights and drafting relevant contract clauses.

Our legal first responders are present at selected trade fairs and exhibitions to act against counterfeiters on site. Our partnerships with attorneys and law firms in the most important international markets offer quick and competent advice where it is needed.

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Email Daniel.vanGeerenstein@vdma.org

18 VDMA Publications on Product Piracy

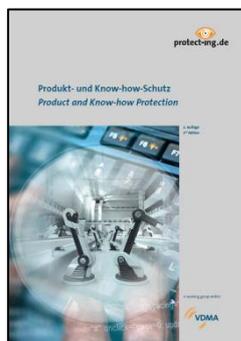


"Product and Know-How Protection" Guidelines

Published: VDMA 2013
 Languages: German or English
 Price: Free PDF after registering

A manual for the effective use of protection measures, with realistic case studies

<http://pks.vdma.org/article/-/articleview/1351236>



Industry Guide "Product and Know-How Protection"

Published: VDMA 2016
 Languages: German and English
 Price: Free

Information on product piracy, security, and know-how protection, current technologies, protection measures, and solutions in the (now defunct) working group; includes a matrix illustration.

<https://pks.vdma.org/article/-/articleview/13086951>



INS Study "Status Quo des Know-how-Schutzes im Maschinen- und Anlagenbau"

Published: DIN/NAM/VDMA 2013
 Language: German
 Price: Free PDF

A statistical overview of the current know-how protection practices by VDMA member organizations.

<http://pks.vdma.org/article/-/articleview/1351004>



INS Study "Integratives System zur einheitlichen Kennzeichnung und Identifizierung von Maschinenbauprodukten"

Published: DIN/NAM/VDMA 2011
 Language: German
 Price: Free PDF

An overview of product marker solutions and their suitability for various forms of application.
 Available on request via Biljana Gabric (biljana.gabric@vdma.org)

19 VDMA Publications on Security



Cybersecurity: Integraler Bestandteil eines EU-Binnenmarktes

Published: VDMA 2017
 Languages: German/English
 Price: Free

The VDMA's headline contribution to establishing a common European framework for security. The paper introduces the fundamental challenges and offers recommendations concerning the principles and first steps for a transparent, sustainable, and robust security policy.

<http://sud.vdma.org/viewer/-/article/render/19470850>



INS Study "Security in Automation – Profilierung von IT-Sicherheitsstandards für den Maschinen- und Anlagenbau"

Published: DIN/NAM/VDMA 2016
 Price: Free

A manual on industrial security with a first introduction to the security norms IEC 62443. The manual is aimed at industrial engineers interested in equipping their machines with strong security.

<https://industrie40.vdma.org/viewer/-/article/render/15264643>



VDMA Manual "Industrie 4.0 Security"

Published: VDMA 2016
 Languages: German/English
 Price: Free

83 pragmatic recommendations for secure and sustainably reliable connections in machines and industrial facilities in 17 areas.

<https://industrialsecurity.vdma.org/>



"Industrial Security – sicher in die digitale Zukunft"

Published: VDMA 2017
 Language: German
 Price: Free

Contributions of VDMA members and official institutions on industrial security, including Security by Design, IEC 62443, training and development, cyber-insurance, agricultural technology, the IUNO project etc.

<https://industrialsecurity.vdma.org/>



"Industriedaten: Verantwortung und Chancen tarieren"

Published: VDMA 2017,
Languages: German/English

Highly valuable and highly sensitive industrial data is created whenever companies operate intelligent connected systems. Sharing this data can open up new business models and pave the way for more productivity and efficiency – as long as the data of employees and users is kept duly protected.

<https://www.vdma.org/v2viewer/-/v2article/render/18176171>



"Fragenkatalog Industrial Security – Einfach anfangen."

Published: VDMA 2014
Language: German
Price: Free

An introduction to the selection and evaluation of security measures for production environments. 33 questions for a first evaluation.

<http://pks.vdma.org/article/-/articleview/6262936>



INS Study "Security in Automation"

Published: DIN/NAM/VDMA 2014
Language: German
Price: Free

A comparison of German and international norms and standards for automation and production security.

<http://pks.vdma.org/article/-/articleview/6264245>



Study "Status Quo der Security in Produktion und Automation"

Published : VDMA 2013
Language: German
Price: Free

An assessment of industrial security by VDMA members, with practical recommendations.

<http://pks.vdma.org/article/-/articleview/2717338>

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