Recall debacle in the automotive industry: no end in sight.
Withdrawal of type-approval? Risks for vehicle owners and drivers

Increasing number of recalls

The almost weekly announcements of worldwide hundreds of thousands of vehicle recalls over safety defects are by now of sensational value at best. In 2014, the total number of recalls exceeded that year’s global total production of new vehicles. Within the first eight weeks of 2015, approximately 10 million vehicles were already under recall in the world, so the 2015-numbers are likely to exceed those of the previous year. The actual figure of vehicles officially and unofficially recalled due to safety deficiencies is probably much higher. If the 70 million vehicles affected in 2014 – in Germany an estimated 1.9 million vehicles were recalled – were taken as a basis, and assuming repair costs of only € 500 per vehicle, the calculated overall costs would amount to at least € 35 billion, excluding further costs incurred. Apparently, there is no coverage from product recall insurance available for this enormous sum. In many countries, such insurance coverage is not offered at all.

According to figures provided by CAM, roughly 30% of worldwide safety deficiencies can be attributed to electrics and electronics, a similar share to passenger protection systems, about 25% fall under the categories of breaks, steering systems, and powertrains. In Germany, recalls over safety issues with respect to passenger protection amount to approximately 41%.

It remains unclear, who will have to shoulder this cost burden in the end. Yet, it seems that vehicle manufacturers and consumers are rather unimpressed by this situation. Varying from market to market, sales figures are increasing. It is, at the very least, curious that the stock prices of precisely those automakers with the highest recall rates have risen to record high levels. Although all recalls result from safety defects in the affected vehicles, thus meaning that these vehicles are not roadworthy and endanger human lives, European politicians as well as the competent authorities – by contrast to those in the U.S. – have scarcely broken their silence on the topic. Even consumer protection groups do not seem to be alarmed.

Causes of recalls

The reasons for recalls are manifold. Approximate analyses have unearthed at least three root causes: increasing use of multi-brand and multi-model platform and carry-

1 Figures are from a study by the Center of Automotive Management (CAM), Automobilwoche, 23.02.2015, p. 6.
2 cf. footnote 1
3 Automobilwoche, 23.02.2015, p. 6.
over-parts strategies, risks arising from global production networks and deficiencies in the quality management systems of the automotive industry. Beside these reasons, the addiction to enormity, by which the battles of the giants are marked, certainly plays a major role, for instance Volkswagen vs. Toyota, where no indications of a competition for quality can be found (the German online newspaper welt.de reported that in 2014 again, Volkswagen was a high-profit machine generating almost € 13 billion in profit. This year, Volkswagen’s big rival Toyota is sought to be outperformed).

Chances are that in addition to these reasons, to name another example, the cost-driven mania for efficiency under the “Industry 4.0” mantra also contributes to climbing recall rates. In an article on the race for more efficiency, German car magazine Automobilwoche quotes the head of training at Nissan Sunderland who claims to have found a solution to Infiniti’s quality requirement issues by using his stopwatch: He intends to slow down by six seconds per vehicle the pace of the production line on which the Q40 model is built so as to give people more time to think while working. Six seconds within subsequent production cycles tuned to seconds hardly even leave assemblers enough time to gather themselves and figure out what they are supposed to think about in the first place.

Incidentally, it seems that so far no vehicle manufacturer, which is remarkable, has declared that a recall’s underlying quality defect had been unavoidable. Despite the manufacturers’ primary responsibility, responsibility is often shifted to suppliers who have to fear enormous recourse actions.

Another major factor in recalls as well as their quite possible avoidance is scarcely discussed in the public debate thereon: the inaction of market surveillance authorities whose task, imposed by European as well as national law, is the preventive

---

6 Automobilwoche, 09.02.2015, p. 4
7 The complexity of vehicles, in particular vehicles with modern electronic and mechatronic components, has not been mastered in many areas. The international debate on functional safety in accordance to ISO 26262 is remarkable (https://www.linkedin.com/groups/Is-Functional-Safety-enough-Safety-2308567.S.5974557001554894851?view=&item=5974557001554894851&type=member&gid=2308567&trk=e2ml-b2_anet_digest-hero-4-hero-disco-disc-0&midToken=AQEMLC0j0Cqwyq&fromEmail=fromEmail&ut=2f奎1Zn_usCE1). Although this standard has been discussed since 2008 and was published in 2011 and forms the basis for most specifications by vehicle manufacturers, the question of whether an electric/electronic system’s compliance thereto implies safety is only now starting to be discussed with a tendency towards negative voices. The afterwards published standard falls short of European legislation on the issue, namely Regulation (EC) No 661/2009 concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 200/1, 31.07.2009).
monitoring of compliance with product safety regulations and the effective intervention if products have safety issues. The epidemic recall actions give every reason to do so.

The legal and political implications of this recall debacle give reason to further reflection.

**Warnings to drivers**

Vehicles which are affected by a recall pose an unpredictable potential danger. Still, they are not taken off the road. The decision whether or not to follow a recall request lies with the vehicle owners, that is, if the announcement reaches them at all or they are so strongly warned that they will abstain from further operating the vehicle out of their own interest. Either way, under German legislation, vehicle manufacturers meet their obligations by issuing the recall warning.\(^8\)

Jurisprudence is not far-reaching enough and does not take into account that the warnings alone will not eliminate the potential danger from the streets. In 2014, faulty airbags manufactured by Takata, for instance, caused recalls of more than 32 million vehicles, particularly in the USA, an instance which can serve as an example of all safety-relevant components and systems. The competent authorities ordered the replacement of these airbags, which is currently carried out. Whether the utilized spare parts are themselves defect-free is, however, uncertain and highly controversial as in most cases the actual root cause of the original part's failure is still unknown and, therefore, actually improved components are not available.\(^9\) Honda, one of the manufacturers hit hardest by the Takata recalls, does not rule out that the spare parts will have to be replaced again in the foreseeable future.\(^10\) Thus, another hazard equal in potential danger to the original one is created by spare parts of which no one knows whether or not they are safe.\(^11\)

**European product safety law**

The public tolerance of this hazardous situation is not compatible with European product safety law. Pursuant to Article 169 of the Lisbon Treaty (Treaty on the Func-

---

\(^8\) German Federal Court of Justice (BGH) of 16.12.2008, VI ZR 170/07, NJW 2009, 1080.

\(^9\) In addition, suppliers usually do not have sufficient production capacities to deliver spare parts in the millions alongside serial supply. Due to the time offset between running serial supply with defective components and concurrent supply of allegedly improved components it cannot be ruled out that, at least for an unidentifiable period, components of critical safety levels and allegedly safe components are assembled at the same time. This mixing will only become manifest in later recalls, if at all.

\(^10\) “Is clock ticking on replacement inflators?”, *Automotive News*, 23.02.2015, p. 3

\(^11\) This will have to be addressed by the courts. In its judgment of 5 March 2015 (C-503/13) on cardiac pacemakers, the European Court of Justice found that the injured party’s claim to compensation for damage “relates to all that is necessary to eliminate harmful consequences and to restore the level of safety which a person is entitled to expect, in accordance with Article 6 (1) of Directive 85/374.”
tion of the European Union – TFEU), consumer protection is of the highest priority for the EU: “In order to promote the interests of consumers and to ensure a high level of consumer protection, the Union shall contribute to protecting the health, safety and economic interests of consumers […].” Vehicles are consumer products. This political objective was implemented, inter alia, by Directive 2001/95/EC on general product safety.\(^{12}\) As provided for in Article 1 of the Directive, its purpose is to ensure “that products placed on the market are safe”. According to Article 3(1) of the Directive, producers shall place only safe products on the market. This Directive was developed further\(^{13}\) and forms the basis of the German Product Safety Act (Prod-HaftG) of 8 November 2011\(^{14}\) which also stipulates that only safe products be placed on the market.\(^{15}\)

Safety defects which cause a recall have in general existed in the vehicles at the time of their placement on the market, even though their effects might only show after further operation on the road. As a consequence, these originally defective vehicles should have never been placed on the market.

**Type-approval Directive 2007/46/EC**

Type-approval in accordance with Directive 2007/46/EC\(^{16}\) is defined in Recital 3 thereof: “The technical requirements applicable to systems, components, separate technical units and vehicles should be harmonised and specified in regulatory acts. Those regulatory acts should primarily seek to ensure a high level of road safety, health protection, environmental protection, energy efficiency and protection against unauthorised use.” These provisions adopt the objectives enshrined in Article 169 TFEU and thereby classify typo-approval as a matter of product safety law.\(^{17}\)

One condition for a vehicle or component manufacturer’s fitness for type-approval is that the provisions on production be complied with and monitored by the competent authorities.\(^{18}\) In this context, Recital 13 of Directive 2007/46/EC states: “In order to ensure that the procedure for monitoring conformity of production, which is one of

---

14 Federal Official Gazette (BGBl.) I p. 2178, 2179; 2012 I p. 131
15 For purposes of clarity, this paper does not examine the dogmatic application of the German Product Safety Act, the reference to which aims at comparing the current recall situation to European product safety culture.
16 OJ L 263, 5.9.2007, p. 1. In the author's experience, the Directive as well as the German regulation on its transposition into domestic law are remarkably unknown and, thus, hardly paid any attention to.
17 Directive 2007/46/EC was incorporated into the German Regulation on type-approval requirements for motor vehicles, their trailers and systems, components and separate technical units intended therefor (EG-Fahrzeugtypengenehmigungsverordnung – EG-EGV) of 21.4.2009. Federal Official Gazette (BGBl.) I, p. 872, incorporated. Type-approval confirms that a given type of vehicle, system or component fulfills all technical requirements.
the cornerstones of the Community type-approval system, has been correctly im-
plemented and functions properly, manufacturers should be regularly checked by
the competent authority or by an appropriately qualified technical service appointed
for that purpose.” This principle is repeated in Section 4 (4) of the German Regula-
tion on EC-type-approval (EG-FGV)\(^\text{19}\) of 21 April 2009. According thereto, the appli-
cant has to present evidence that in accordance with Annex X of the Directive
2007/46/EC, which refers to ISO 9001, “adequate arrangements have been made to
ensure that production vehicles, systems, components or separate technical units,
as the case may be, conform to the approved type.”

**Condition for type-approval: an effective quality management system**

Evaluating the conformity of production and the monitoring thereof, both carried out
by the manufacturer, therefore require the existence of an effective quality man-
agement system in accordance with DIN EN ISO 9001.\(^\text{20}\) The standard’s guiding
principle is the avoidance of defects in the entire supply chain, including the final
product. The key provision thereto is the incoming goods inspection of purchased
supplier products, including the applicable documentation requirements\(^\text{21}\), i.e. the
entire supplier management for all supplied parts of a vehicle, including the vehicle’s
assembly. Without being able to go into further detail at this point, suffice it to say
that many – presumably most – recalls are caused by defective supplier parts or
their faulty functioning or functionality at vehicle level, be it due to half-baked develop-
ment, insufficient validation\(^\text{22}\) or due to manufacturing defects.\(^\text{23}\) Based on CAM\(^\text{24}\) results and factoring in the author’s experience with the automotive supplier indus-
try, it can be said that at first glance the quality management systems of both auto-
makers and suppliers have seemingly failed.\(^\text{25}\) New vehicles, especially those waiv-
ing or, in any case, minimizing the driver’s self-reliance and responsibility for all the

\(^19\) Federal Official Gazette (BGBl.) I 872
\(^20\) Regulation 371/2010 (Annex X thereof), OJ L 110/1, 1.5.2012
\(^21\) In sections 7.4.1 and 7.4.3, the standard uses the term “verification of purchased prod-
ucts” instead of “incoming goods inspection”. For further detail cf.: Helmig, “Incoming
Goods Inspections in the Automotive Supplier Industry: a Liability Trap”,
(http://www.helmig-regula.de/fileadmin/docs/publikationen/2014-06-
11_Incoming_Inspection.pdf), the German original was published in *Phi* 2014, p. 86 ff.
\(^22\) ISO 9000 – 3.8.4
\(^23\) For cost-saving reasons, manufacturers usually do without compatibility of the interfaces
between components delivered by different suppliers, thereby accepting that a compo-
nent might be compromised by a detectable, yet for lack of an inspection undetected, de-
fect.
\(^24\) cf. footnote 1
\(^25\) One important indicator as to internal problems is the current situation of skills shortage,
where qualified personnel already – and this is something the author has also experi-
enced – do not have enough time to deal with rules and regulations or process defini-
tions. According to a study by the American Original Equipment Suppliers Association,
the dearth of engineers will be one of the biggest problems over the next 12 months: “The
lack of engineering talent and skilled labor shortages continue to be top-of-mind.” *Auto-
motive News* of 16.2.2015, p. 18
hype about self-driving cars, will not become any safer under the current conditions of insufficiently functioning quality management systems. They will only hold additional safety gaps, which will not be mastered, notably so regarding the aspect of vulnerability to hacker attacks.

**Potential withdrawal of type-approval**

The manufacturer is responsible for a failing QMS. The management commitment pursuant to section 5.1 of DIN EN ISO 9001 contains a focus on customer requirements as well as on statutory and official requirements that can be found in both the type-approval Directive and Regulation (EC) No 371/2010 as well as in the requirements provided for in Article 5 of Regulation (EC) No 661/2009. The management is also responsible for the authenticity and accuracy of the certificate of conformity required by Article 18 of Directive 2007/46/EC, by means of which a vehicle’s legal conformity to the requirements of this Directive and, thus, a vehicle’s road safety are certified. Vehicles under recall, by definition, do not correspond to the Directive and the certificates of conformity can therefore be judged as incorrect at first glance.

Non-conformity of production to the required quality assuring organization and processes, an inaccurate certificate of conformity and insufficient measures by the manufacturers to avoid placing unsafe vehicles on the market all allow the withdrawal of EC vehicle type-approval by the approval authorities (Article 32 (3) of Directive 2007/46/EC).

Pursuant to Article 6 of Directive 2001/95/EC on general product safety, the competent market surveillance authorities shall ensure that only safe products are placed on the market. Article 16 (2) of Regulation (EC) No 765/2008 of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products further outlines the tasks of market surveillance bodies: “(2) Market surveillance shall ensure that products covered by Community harmonisation legislation which, when used in accordance with their intended purpose or under conditions which can be reasonably foreseen and when properly installed and main-

---

26 Article 5 of Directive 2007/46/EC
27 OJ L 200/1, 31.7.2009
28 The express terms of Article 32 (3) read as follows: “If the measures are considered to be insufficient by the authorities concerned or have not been implemented quickly enough, they shall inform the approval authority that granted the EC vehicle type-approval without delay. The approval authority shall then inform the manufacturer. If the approval authority which granted the EC type-approval is itself not satisfied with the measures of the manufacturer, it shall take all protective measures required, including the withdrawal of the EC vehicle type-approval where the manufacturer does not propose and implement effective corrective measures. In case of withdrawal of the EC vehicle type-approval, the concerned approval authority shall notify the manufacturer, the approval authorities of the other Member States and the Commission by registered letter or equivalent electronic means within 20 working days.”
tained, are liable to compromise the health or safety of users, or which otherwise do not conform to applicable requirements set out in Community harmonisation legislation are withdrawn or their being made available on the market is prohibited or restricted and that the public, the Commission and the other Member States are informed accordingly.” To the author’s knowledge, national and European market surveillance authorities have so far made no use of their powers to prevent recalls by monitoring production conformity and to intervene in the event of recalls, including their consideration of withdrawing type-approval.

Conclusion

Vehicles under recall are in general vehicles which were not manufactured and placed on the market in accordance with the provisions of European product safety legislation and type-approval legislation. They do not conform to European product safety law. The competent market surveillance authorities have apparently done nothing to counteract this trend.

Risks posed to owners and drivers

Vehicle owners and/or drivers usually only learn of the recall causing defect in their vehicle when notified thereof by the manufacturer, by checking the Federal Motor Transport Authority’s (KBA) data base\(^{30}\) or through the media. The notification usually contains a warning, a rather general description of the defect and a request to bring the vehicle to a car repair shop. This request in the public interest is not enforced. Between the receipt of the warning and the actual repair of the, due to material defects, unsafe vehicle time passes during which the vehicle is – no doubt quite commonly – operated despite its unsafe condition. This poses serious risks to car owners and drivers:

According to Section 23 (1) sentence 2 of the German Road Traffic Regulations (StVO), the driver is responsible for the vehicle’s safety and conformity to the relevant provisions. This conformity is among the criteria for road safety. Conformity is compromised where defects are likely to put other people in real danger.\(^{31}\) Vehicles with safety defects must not be operated any further. The persons responsible for this are the owner and the driver, as set out in Sections 31 of the German Road Traffic Licensing Regulations (StVZO) and 23 StVO, respectively. Section 17 StVZO provides that the authorities may – in the event of significant danger – take the vehicle off the road, a measure which, as it seems, the authorities have not yet taken in the context of recalls. Both owner and driver have to face the liability consequences

\(^{30}\) http://www.kba.de/DE/Fahrzeugtechnik/Marktueberwachung_Rueckrufe/Rueckrufe/rueckrufe_node.html

\(^{31}\) Hentschel/König/Dauer, Straßenverkehrsrecht, § 23 StVO, recital 15
laid down in Section 17 of the Road Traffic Act (StVG) as they can never invoke the existence of an inevitable event as defined by said Section 17. Further liability, especially liability in tort/delict, is set out by Section 16 StVG.

**The insurance company’s release from obligations**

Pursuant to the German Obligatory Car Insurance Act (Pflichtversicherungsgesetz – PfIVG), vehicles must be insured and domestic insurance companies are under an obligation to contract. With regard to vehicles which were defective from the start, there can be no obligation to contract, in my opinion. Where a vehicle does not conform to the manufacturing and operating provisions laid down in the Road Traffic Licensing Regulations (StVZO) due to defects originating from the production, the obligated insurer may, in specific cases, be released from his obligation to perform the contract according to Section 3 PfIVG. Pursuant to Section 23 of the German Insurance Contract Act (VVG), the owner of the vehicle shall notify his motor liability insurance of the increased risk upon receipt of the manufacturer’s warning against safety defects (Section 5 (3) of the German Obligatory Car Insurance Regulations – Kraftfahrzeug-Pflichtversicherungsverordnung).

In addition to these public-law and civil-law consequences, the driver might be confronted with criminal charges: The terms of Section 6 PfIVG stipulate that whoever operates a vehicle without insurance coverage shall be punishable with up to one year of imprisonment or a fine. Where the perpetrator acts with intent, which should be the case rather frequently regarding vehicles under recall over safety defects, the vehicle may be withdrawn according to Section 6 (3) PfIVG.

**The European and national authorities’ inaction**

In the European and German public debate, next to nothing is heard of all these legal implications for manufacturers, suppliers, car owners and drivers. Politicians do not react, the competent authorities, so it seems, do not react and, apparently, there is hardly any jurisprudence giving far-reaching momentum to this complex issue. Newsworthiness, if any, can be assigned to the fact that Honda had to pay a $70 million fine for failing to perform its obligation to report defects and accidents. Takata, the manufacturer who, since 2001, had produced airbags which caused a wave of recalls, also has to pay a $14 million fine on a daily basis.

---

33 Prölls/Martin, Versicherungsvertragsgesetz, § 23, recital 37
The NHTSA’s action

Whereas in Europe and Germany drivers, owners and potentially injured persons are left alone with all these problems at the end of the day, which is encouraged by restrictive jurisprudence\(^\text{36}\), the American road safety authority NHTSA\(^\text{37}\) has been taking rigorous action. Not only does it impose considerable penalties where vehicle manufacturers or suppliers fail to notify the agency of safety defects\(^\text{38}\), but by means of a painstakingly meticulous investigation it also pressures automakers and suppliers to justify and explain how and under what conditions safety-related decisions were made by them: Who defined which assumptions on what sound basis and how were evaluations achieved in order to make responsible safety-related decisions regarding the product (the airbags) and its fitness for purpose in the vehicles? What documents are available thereon and – which is crucial for the personal responsibility of the engineers – who accepted and cleared all these evaluations? The “General Order” as well as the “Special Order”, dated 18 November 2014, issued to the nine vehicle manufacturers affected and to Takata make for a blueprint for official investigations within the context of the obligations laid down in Section 26 of the German Product Liability Act (ProdHaftG), a charge or indictment, or an action for damages.\(^\text{39}\)

To name but a few examples taken from the Orders to Takata and the vehicle manufacturers concerned: “If testing of inflators has been completed, describe in detail the results of the testing and the conclusions you have reached based upon the test results. If your conclusion is that a safety defect does not exist […], describe in detail the basis for that conclusion and when the conclusion was made and by whom.”

The vehicle manufacturers who use said Takata airbag inflators are requested to answer questions under oath, such as: “State in your report whether or not Takata has performed testing of inflators used in your vehicles […]. If so, describe in detail what Takata has communicated to you about the testing and/or test results. Produce all documents related to Takata’s testing, test results and your communications, internal and external, related to the testing. State whether you have requested additional information from Takata concerning its testing […] which you believe would

---

\(^{36}\) For instance the Federal Court’s (BGH) airbag-decision of 16.06.2009, VI ZR 107/08, and nursing-bed-decision of 16.12.2008, VI ZR 170/07.

\(^{37}\) National Highway Traffic Safety Administration

\(^{38}\) However, NHTSA, too, is currently being put under political pressure. Efforts to make the authority even more efficient, against the backdrop of the ignition switch and airbag recalls by GM and Takata, seem to fall through because of the conflict between Republicans and Democrats: Automotive News of 16.02.2015, p. 10, “Safety crisis fades off Congress’ radar”.

\(^{39}\) http://www.nhtsa.gov/About+NHTSA/Press+Releases/DOT-calls-for-national-recall-of-takata-driver-air-bags
assist in your determination of whether a defect exists. Identify and describe any information, documents or categories of information and documents that you reasonably believe that Takata has or reasonably should have concerning inflators or testing of inflators used in your vehicles that Takata has not provided you and which you believe would assist you in testing inflators to determine whether a safety defect exists [...]."

Not only does NHTSA expressly support the protection of public safety – at least this could and should be demanded of European and domestic authorities as well – but it has also worked closely with attorneys for private plaintiffs and has supported the preservation of evidence. According to a press release by NHTSA on 25 February 2015, the agency ordered Takata to preserve all affected airbag inflators as evidence for private litigation cases and to enable NHTSA to conduct its own testing with the support of outside experts to search for the actual – still unknown – root cause.  

The automotive industry ignores its own standards

The Orders issued by NHTSA would certainly also make for a good inspiration for self-reflection in the automotive industry with respect to its own basic principles and the primacy of its obligation to hazard avoidance (e.g. pursuant to Section 6 (3) of the German Product Liability Act): With ISO/TS 16949:2009, the automotive industry itself created a global standard for quality management systems applicable to the industry. In order to comply with European product safety legislation, this Technical Specification is based on ISO 9001, the latter, pursuant to Regulation (EC) No 371/2010, being the basis for checking the conformity of production requirements as provided for in Directive 2007/46/EC on type-approval. The NHTSA Orders execute nothing else than the discipline regarding processes that is required by ISO 9001 throughout the entire supply chain, i.e. a discipline the automotive industry

---

40 [http://www.nhtsa.gov/About+NHTSA/Press+Releases/2015/takata-ordered-to-preserve-defective-air-bag-inflators](http://www.nhtsa.gov/About+NHTSA/Press+Releases/2015/takata-ordered-to-preserve-defective-air-bag-inflators). The agency has taken the following measures: “Takata is prohibited from destroying or damaging any inflators except as is necessary to conduct testing. Takata is required to set aside 10 percent of recalled inflators and make them available to private plaintiffs for testing. Takata is required to submit for NHTSA’s approval plans for gathering, storing and preserving inflators already removed through the recall process and inflators removed in the future, as well as written procedures for making inflators available to plaintiffs and automakers who request access. Plaintiffs or automakers who seek access to inflators must submit to the terms of the preservation order, which grants NHTSA access to all testing data. NHTSA retains the ability to collect inflators for its own testing if it determines such testing is necessary.” Nothing comparable can be said of the situation in Europe and Germany although legislation would in general allow for such measures.

created itself. Practice has shown, however, that this defect avoiding discipline is sacrificed at the altar of cost reduction or to the omnipresent efficiency mania. Neither victims, whether fatal or not, nor damage to the economy can be justified by this.

Summary

In 2014, the worldwide number of recalls in the automotive industry exceeded the number of manufactured vehicles. 2015 is hardly going to be any different.

Vehicles which are affected by recalls pose highly significant safety risks.

The owners and drivers of such vehicles under recall over safety defects may have to face serious civil and criminal charges as the operation of unsafe vehicles may result in loss of insurance coverage.

The American road traffic agency NHTSA has taken rigorous action against vehicle manufacturers and suppliers. In order to do so, it uses the rules on technical discipline regarding processes required by ISO 9001, a standard the automotive industry created itself.

Despite the existence of a legal framework in Europe and Germany which would even allow the withdrawal of type-approval, market surveillance authorities do not intervene effectively. European and German authorities have remained passive to a large extent. The drivers, car owners and victims concerned are left alone.

Translated from German into English by Charlotte P. Kieslich
charlotte.kieslich@web.de

The original was published in PHi 2/2015