KAN Brief
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Kommission Arbeitsschutz und Normung

HIGHLY-AUTOMATED MOBILE MACHINERY

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Highly automated mobile machinery: safety is paramount

Driverless mobile machines have long been a reality in numerous workspaces, including in agriculture, industry and logistics. They have the potential to deliver greater efficiency, reduce the physical workload on workers and alleviate the shortage of skilled workers. The technology, however, is not yet fully mature: collision risks, a lack of clarity regarding danger zones and inadequate detection of persons all show that safety still cannot be fully guaranteed by technical means.

KAN's position statement on driverless mobile agricultural machinery and the analyses by INRS, the French occupational safety institute, concerning autonomous machinery in industry and logistics have reached the same conclusion, namely that priority must be given to technical protective measures. State-of-the-art person detection, safe combinations of towing machines and attachments, clear definition of danger zones and realistic test dummies are absolutely essential. Until these points are implemented reliably, safety will remain heavily dependent on organisational measures.

The task now is for the requirements of the EU Machinery Regulation to be implemented consistently in standardisation activity and in the field. Driverless and fully automated operation must not result in some safety issues not being recognised and addressed until machinery is already in use. Only if the integration of safety systems begins at the design stage can we exploit the opportunities offered by automation without creating new accident black spots. «

Driverless mobile machines: a challenge for occupational safety and health

Great strides have been made in recent years in the development of digital technologies, including artificial intelligence. One result has been the creation of new applications for driverless mobile machines that can optimise work processes, reduce physical workloads and relieve workers of monotonous tasks. However, new risks and hazard scenarios are also foreseeable, and still pose challenges for safety technology.

Mobile robots, driverless transport equipment in industry and logistics, highly automated machines in agriculture: advanced automation technology is found in countless driverless mobile machines – and also in drones, and in four-legged and humanoid robots. However, machines are appearing on the market that are labelled as compliant without yet having been developed to full maturity, and their safety consequently not yet being guaranteed in all respects by technical means[1, 2].

Given the growing success of driverless cars, mowing robots and vacuum cleaner robots for domestic use, it might reasonably be assumed that driverless (autonomous) machines can also be used without restrictions and in complete safety in factories and warehouses, on construction sites or in fields. What, though, do we understand by "autonomy"? In the automotive sector, different levels of autonomy have been clearly defined. However, this definition cannot readily be transferred to machines, as they are subject to different statutory provisions and therefore also different design requirements. Machines must comply with the essential health and safety requirements of the Machinery Directive 2006/42/EC and, in the near future, the EU Machinery Regulation 2023/1230. The legislator has introduced new requirements in the latter governing the autonomy of mobile machines and the use of self-evolving machine learning.

Legislation requires machinery to be safe for use for its intended purpose. As the new technology finds uses in more and more applications, interactions between workers and these machines are also increasing significantly. Use of the machines leads to new work situations, thereby also changing the workers' activities. It is therefore important that these organisational changes, and the new interactions and the hazards associated with them, be taken into account.

The greatest physical risk is posed by direct collisions with persons present in the vicinity of a machine. A risk also exists of a person becoming trapped between a machine and a fixed object in proximity to it. The machine itself, a load or an obstacle with which the machine collides could also fall or tip over and hit a person.

Hazards and solutions

The French national institute for research and safety (INRS) addresses these hazards by actively participating in the development of standards for these machines, in particular EN ISO 3691-4 for driverless industrial trucks. It also investigates how these machines can be integrated into predefined environments, with consideration for up-to-date good practice for the detection of persons. Since the machines are mobile and can therefore in principle move freely, they must be capable of being aware of their environment and moving safely within it.[3]

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Where mobile machinery is operated by drivers, the risk of collisions between machinery and human beings has long been known, yet still cannot be eliminated entirely by technical measures. The responsibility for using the machine safely therefore lies with the driver. Since autonomous mobile machines do not have drivers, the risk of collision and the other risks mentioned above must be prevented by means other than human intervention, ideally by technical solutions. Technical solutions still have their limitations, however. Although some mobile machinery features equipment such as safety scanners, this cannot cover all conceivable scenarios that may arise when the machine is moving in its environment. Until a technical solution is found that makes autonomous machines completely safe, it must be determined whether compliance with the Machinery Regulation can be guaranteed at all. Should this be possible, it will then be essential for operators to make thorough preparations for the use of these machines before purchasing them, i.e. to identify all hazards, stresses and risks and to take all necessary preventive measures.[4]

It is also important that the tasks of mobile machinery be defined precisely and the flows of goods and people in the area where it is to operate be analysed. This enables organisational changes and potential interactions to be identified. A further important point is for the environment to be considered and its numerous variables determined: ground surface conditions, the potential presence of objects, humidity, temperature and light conditions, etc.

Since it is virtually impossible at present for technical protective measures to cover all relevant parameters, organisational measures must be taken in addition to cover residual risks. These include, for example, the design of the working environment, e.g. keeping the working area largely clear and providing information signage, and adequate information and training.[5]

At present, deficits in technical safety equipment mean that the safety of driverless mobile machines still depends heavily on organisational measures. The task now is to eliminate these deficits as quickly as possible in order to integrate safety better into the design of machinery and thus improve safety for the breadth of applications in companies.

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2 Preventing collisions between vehicles and pedestrians: what role do collision warning or avoidance systems play? Hygiène et Sécurité du Travail n° 276, 2024. www.inrs.fr/media.html?refINRS=NT%20116 (in French)
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5 Autonomous mobile machines: essential contributions from the integrator and user for successful implementation. www.inrs.fr/accueil/inrs/recherche/etudes-publications-communications/doc/publication.html?refINRS=NOETUDE%2FP2023-157%2Fdo42 (in French)

Driverless – but safely, please: KAN position statement on highly automated, driverless mobile agricultural machinery

Highly automated, driverless mobile machines are increasingly being used in agriculture. In a KAN position statement, occupational safety and health representatives call for the safe design of these machines to be addressed, in order for the risks to workers and third parties to be reduced.

Robotics is finding its way into agriculture – in the form of highly automated, driverless mobile machinery. Examples are multi-purpose towing machines serving as a replacement for conventional tractors, or specialised robots for hoeing the soil, weeding, or spraying pesticides selectively onto individual plants. This not only increases efficiency and offsets the growing shortage of skilled workers: OSH representatives also view this new equipment as having the potential to enhance occupational safety and health. For example, the resulting changes to the task profiles of agricultural machinery operators can be expected in turn to reduce hazards presented by dust, heat, hazardous substances (pesticides) and vibration, and also stress responses to mental workload. The biggest current cause of accidents on agricultural machinery could also be mitigated appreciably: where machinery is operated manually, climbing onto it and off it accounts for at least 50% of all accidents. At the same time, the use of robots gives rise to new hazards, which must also be addressed. Beginning at the design stage, it must be ensured that risks associated with the machines and their use are eliminated, or where this is not possible, at least reduced to a minimum.

Coordinated position of OSH representatives required

In Germany, occupational safety and health relating to driverless mobile agricultural machinery falls within the remit in the first instance of the SVLFG (the German Social Insurance for agriculture, forestry and landscaping). The SVLFG has been fielding enquiries on this topic from both farmers and manufacturers for some time now. It's pleasing to see manufacturers themselves proactively asking OSH experts how safety can be ensured where robots are used. Driverless systems in agriculture are also being addressed by standards developers. Initial standardisation documents have been developed at the international level, for example addressing partially automated, semi-autonomous and autonomous agricultural machinery and tractors[1]. Occupational safety and health representatives consider these documents still to be unsatisfactory, however. The SVLFG's experts are involved in standardisation work; however, they do not wish to participate in standardisation activity or respond to enquiries alone, but rather to base their activity on a common position agreed between all stakeholders in occupational safety and health.

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KAN expert discussion

With its expert discussions, KAN offers a proven means of creating a consensus between the German stakeholders in occupational safety and health. In February 2025, representatives of all stakeholders in KAN met, supported by experts from the German Federal Ministry of Agriculture, the Ministry of Agriculture of the State of North Rhine-Westphalia and the Chair of Autonomous, Collaborative Agricultural and Sensor Systems at Osnabrück University of Applied Sciences. The objective was to develop guiding principles for the safety of highly automated, driverless mobile agricultural machinery in field use, and thereby to reduce the risks presented by these machines for workers and third parties.

Guiding principles laid down – technical details to be formulated during implementation

The expert discussion deliberately avoided formulating technical details; instead, guiding principles were laid down for the aspects considered essential by the OSH representatives. The technical form by which this is to be implemented is to be clarified, for example, in discussions with manufacturers, or in standards committees. This strategy has the advantage that the technical details reflect up-to-date good practice at a given point.

Automatic detection of persons in the vicinity of agricultural robots is at the heart of the demands made by occupational safety and health representatives. The safety-related functions of the sensor systems used for this purpose must be consistent with up-to-date good practice. This applies both to individual agricultural machines and combinations of towing machines and implements. It is emphasised that technical measures have precedence over organisational measures.

A total of four guiding principles have been set out:

The danger zones of highly automated, driverless mobile agricultural machinery must be defined comprehensively. At the same time, it must be considered that these danger zones are generally accessible to the public. Furthermore, dynamic factors must be taken into account in the hazard scenario, for example when a further mobile machine moves into the area occupied by a driverless machine.

Human beings must be detected sufficiently reliably and in consideration of all hazards. This detection applies to workers, but must also cover third parties, particularly children, persons with impaired ability, etc. Safety-related sensor functions and applications must adhere to up-to-date good practice. Detection of human beings forms a part of the protective measures required for compliance with European machine safety legislation. The safety level attained by current assistance systems is not sufficient for this purpose.

These general criteria apply to both the standalone machine and the combination of tractor and implement. The term “implement” covers all trailed, semi-mounted or mounted equipment. Since technical measures take precedence over organisational measures, the implement must be detected sufficiently reliably by the tractor’s safety system. If necessary, the implement must be equipped with additional systems that are then integrated into the tractor’s safety system. For example, the tractor’s safety system can be responsible for monitoring the implement; should it determine that the combination is unsafe, it should prevent the tractor from moving off.

In order to test person recognition, the test specimens must be suitable for simulating standing, lying and kneeling adults and children wearing everyday clothing.

KAN adopted this position in July 2025[2]. It now provides a working basis for occupational safety experts in standardisation committees and in discussions with manufacturers and users.

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[1] Agricultural machinery and tractors – Safety of partially automated, semi-autonomous and autonomous machinery

[2] www.kan.de/fileadmin/Redaktion/Dokumente/Basisdokumente/de/Deu/2025-06-26_KAN-Position_fahrerlose_Landmaschinen-en.pdf

Omnibus packages: fast track procedure for reforms

Since February 2025, the European Commission has been pursuing the goal of strengthening the European Union's competitiveness with a series of what are termed "omnibus packages". Omnibus packages are part of a comprehensive strategy to promote growth, innovation and investment in the EU.

An omnibus package is a package of legislative proposals by which a number of existing acts can be revised at the same time. Unlike in the revision of individual acts, amendments are made to particular points, grouped by topic and presented for consideration together. The legislative packages serve as an instrument for implementing political priorities. They contain normal EU acts, i.e. regulations and directives, which are presented to the European Parliament and the Council of the European Union as part of the ordinary legislative procedure. However, due to the common political will, they are to be dealt with more quickly. Since February, the European Commission has already presented seven omnibus packages (see figure), and many more are planned[1].

The goals the European Commission is pursuing with its omnibus packages are ambitious: by simplifying regulations, it aims to relieve companies of disproportionate reporting obligations and to reduce administrative costs to companies by 25% – for SMEs by 35% – by 2030. This equates to potential savings of €37.5 billion. The measures focus on sustainability, agriculture, defence and digitalisation. The packages are therefore a tool not only for reducing bureaucracy, but also for implementing the EU's strategic goals for the future.

Relevance for KAN: Omnibus Package IV

Omnibus Package IV, published on 21 May 2025, is relevant to KAN's work. It contains a number of legislative proposals, formulating measures for simplification and relief that are intended to create growth incentives for SMEs and digitalise processes.

The proposals for a regulation and a directive concerning digitalisation and the instrument of common specifications are of particular relevance for KAN. These are intended to extend the European Commission's power to adopt common specifications to include further Single Market acts.

Common specifications are European implementing acts that are intended to serve as an alternative to harmonised standards in the event that, despite standardisation mandates having been issued, the European standards organisations CEN, CENELEC and ETSI fail to deliver harmonised standards, or deliver standards that are deemed inadequate. In such cases, the European Commission sees a need to offer companies legal certainty through common specifications.

KAN examined this instrument critically in a position paper in October 2024. In August 2025, KAN also submitted a comment on the current legislative proposals[2], in which it advocates in particular for the following points:

Priority of harmonised European standards: The instrument of common specifications should come into consideration only as a "fall back solution". The European standardisation system and the development of harmonised standards should always take precedence. The principles enshrined in the standardisation system, such as transparent procedures, the participation of all affected stakeholders and the development of standards by consensus, are indispensable.

Narrowly defined conditions for adoption: KAN criticises the expansion of common specifications' scope of application, in particular the possibility of their being adopted in cases of "urgent concern" on the part of the Commission without clearly defined and verifiable criteria.

Transparent procedures and legally binding criteria: The procedure for developing common specifications is not yet adequately regulated. Processes must be clear, comprehensible and verifiable for the public, and legally binding.

Participation of all relevant stakeholders: KAN warns that common specifications threaten to undermine the standardisation system with its established principles and participation processes. It calls for systematic involvement of societal stakeholders.

Horizontal legal framework: Common specifications should be enshrined in an overarching act, for example in the course of revision of the Standardisation Regulation (EU) No 1025/2012. This is intended to avoid fragmentation and ensure uniformity.

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26 February 2025	Omnibus I: sustainability Omnibus II: EU investments
14 May 2025	Omnibus III: common agricultural policy
21 May 2025	Omnibus IV: small mid-caps and digitalisation
17 June 2025	Omnibus V: defence readiness
8 July 2025	Omnibus VI: chemicals
19 November 2025	Omnibus VII: Digital omnibus
Planned for 2026	Automotive industry, environment, tax, food and feed safety, medical devices, energy products

[1] Detailed overview of the omnibus packages: www.consilium.europa.eu/en/policies/simplification

[2] www.kan.de/en/help-advice/news/detailansicht-en/kan-position-statement-on-commissons-omnibus-package-iv

Fire services and standardisation

Firefighting and fire protection are the subject of numerous standards, addressing topics from respiratory protection for firefighters to smart protective equipment, fire extinguishers and fire blankets for electric vehicles. Tim Pelzl, Head of the Expert committee Fire and emergency services, fire prevention and protection of the German Social Accident Insurance (DGUV), talks about why standards are particularly important for occupational safety and health in the fire services.

What are the main topical issues for standardisation activity concerning the fire services and fire protection?

One major topic is fires involving high-voltage batteries, notably in vehicles, but also in domestic applications and laptops. Special fire extinguishers are needed for fighting fires on these lithium-ion batteries. Standards are currently being developed that will enable the effectiveness of different fire extinguishers to be compared objectively, e.g. in the procurement process. The same applies to fire limitation (or fire containment) blankets: when the high-voltage battery of an electric vehicle is damaged, it presents a risk of fire. A fire limitation blanket – a large piece of fabric that can be placed preventively over an entire electric vehicle – prevents fires from spreading to the surrounding area should they break out.

It goes without saying that personal protective equipment is always an important topic for the fire services. A lot of standardisation activity takes place in this field at international level. Not all topics are immediately apparent. An example is command management systems for major cross-border deployments. Another is drinking water protection, specifically the design of vehicles and valves to prevent contaminated water from flowing back into the fresh water supply system. These are just examples of what's currently happening in standardisation work at national, European and international level.

What's the current situation regarding smart PPE for firefighters?

You're right to mention smart PPE: it's an important topic. Sensor and other technology for supporting firefighters during deployments against fires is integrated into their helmets, boots and jackets. It includes LED warning lights that switch on and off automatically; sensors that monitor body functions, or the ambient conditions, for example by detecting toxic gases; through to augmented reality, where information possibly needed by emergency responders, such as thermal images or information for orientation in buildings, is displayed to them in respiratory masks or goggles.

A lot of research is already being undertaken in this area, but I'm not yet aware of any solutions that have reached market maturity. Some of the technical challenges are considerable. It's also not always clear what legal requirements – beyond the PPE Regulation – apply to a combination of PPE and electronics, and what implications this has for the conformity assessment procedures. Data privacy is also a major issue whenever people's biometric data is collected; some people

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may choose not to use certain items of PPE because they don't trust the technology and how it handles their data.

We also have to recognise that, as yet, standardisation in this area is insufficient; one example is how data formats are supplied to interfaces. But there are also very tangible aspects. For example, the requirements for firefighters' clothing to withstand exposure to flames and high temperatures are quite strict. Electronics integrated into smart PPE must be tested along with it, and must meet the same requirements. This must also be reflected in the relevant standard.

Are any topics not yet adequately addressed?

A lot of subject-matter in our sector has been addressed by standardisation – in some cases perhaps in more detail than necessary. At the same time, a steady stream of new technology is coming onto the market that we'd like to have standards for, as the result is otherwise chaos. One example are trolleys for firefighters' equipment, which can be loaded onto vehicles and unloaded at the deployment site very quickly. These have now become standard. But many of the products on the market aren't properly thought through: some of the trolleys are too high or too heavy and can tip over; they may have pinch points; and they need to be secured properly on the vehicles. This brings us to the point where standardisation is needed, so that a common understanding is reached and all components are compatible with each other.

There are also times when we wish that standardisation allowed a little more flexibility. One example is the interoperability of respiratory protective devices, i.e. the question whether an item of equipment from manufacturer A can be combined with parts from manufacturer B. This isn't possible at present, as certification requires all components to be from the same manufacturer. We're therefore trying to raise this issue within standardisation in order to establish uniform interfaces that allow parts from different manufacturers to be combined where this would be an advantage.

What challenges does climate change pose for the fire services?

More and more often, we're having to deal with extreme weather events such as torrential rain, storms and high temperatures. In recent years, we've seen forest fires in Germany on a scale and of a duration that we wouldn't previously have considered possible. Obviously, this is also reflected in the equipment that we'll need in the future. For wildfires, for example, thinner hoses that are easier to carry are needed, and smaller pumps weighing perhaps only 50 rather than 200 to 300 kilogrammes that can be carried by two people several hundred metres over difficult terrain, perhaps even uphill, for flexible deployments.

At the same time, much larger and heavier equipment is also often required than what we've been used to, and PPE must also be adapted. When fighting wildfires, firefighters need completely different PPE to the clothing that's called for when they enter burning buildings. The latter is highly insulating and would be physiologically unbearable during a major wildfire, at temperatures of 30 °C and for several hours. Standardisation is particularly important for such scenarios.

How much influence does standardisation have on occupational safety and health in the fire services?

In Germany, responsibility for fire protection lies with the local authorities. Subsidies for vehicles or the procurement of PPE granted by Germany's administrations at state level are often conditional upon the equipment or vehicles complying with the relevant standards. Firefighters are often volunteers and don't have the time to deal with technical details. When they note that an item of equipment complies with the standard specified by the responsible accident insurance institution, they can be confident that the technical occupational safety and health requirements are met. This makes standards a crucial factor in occupational safety and health. That's why it's also important for the German Social Accident Insurance and KAN to be involved in standards development work, so that occupational safety and health aspects are considered from the outset.

Hear more about firefighting and fire protection in standardisation in episode 26 of the KAN podcast:

www.kan.de/podcast
(in German)

EUROSHNET Conference 2026: Digital and green innovations – Shaping the future of occupational safety and health

How can standardisation, testing and certification keep pace with the challenges to safety presented by the green transition and the profound digital changes in the world of work? Experts from throughout Europe will meet in May 2026 at the EUROSHNET Conference to report on topical developments and discuss strategies for practical solutions.

The 9th European conference on standardization, testing and certification in the field of occupational safety and health will be held in **Helsinki** on **27 and 28 May 2026**. Under the motto "Digital and green innovations – Shaping the future of occupational safety and health", the European EUROSHNET network invites experts from across Europe to discuss strategies for safe working environments and the responsible use of digital technologies.

Rethinking occupational safety and health

The conference will highlight how technological innovations and climate change are changing the demands upon occupational safety and health. Standardisation, testing and certification must play an active role in shaping these changes. The conference's opening session will focus on the recent developments in European legislation and the important role that standards play in making new technologies and green innovations safe.

Another session will be devoted to **sustainability and climate change** and the wide-ranging effects of these topics on occupational safety and health. Practical examples will show what impact new strategies for protection and new legislation have in the field. One major challenge, for example, is finding adequate replacements for certain test gases that are being banned owing to their harmful effects on the climate.

The digital and green transformation is undoubtedly also influencing the field of **personal protective equipment**. AI-assisted smart PPE, and inclusive design that takes all potential user groups into account, will play an increasingly significant role in the future in the technical design of equipment, and also in its testing and ultimately its use in the field.

Another focus of the conference will lie on **digitalisation and the use of artificial intelligence in the workplace**. What are the impacts of the EU Cybersecurity Act, and what role does and will artificial intelligence play in the workplace, now and in the future? Particular attention will be paid to the interface between AI, machines and cybersecurity. The topics covered will include functional safety vulnerabilities in external attack scenarios, and the new requirements of the EU Machinery Regulation. In a panel discussion, representatives of users, manufacturers and testing bodies will discuss the possibilities and limitations of functional safety and the use of AI.

At the close of the event, representatives of workers, manufacturers, standards bodies and experts in European law will discuss what position Europe and its legislation hold in the global structure, and how Europe can safeguard its influence in international standardisation activity in the long term.

Register now and join the Europe-wide discussion

Conference participants registering by **31 January 2026** will benefit from the **early bird price** of €290. Participation is open to anyone involved in occupational safety and health, standardisation, testing and certification: from occupational safety and health institutions to manufacturers, testing laboratories, public authorities and the social partners.

All participants are invited to submit **poster proposals** relating to current and future challenges, opportunities and changes in the spheres of standardisation, testing and certification. The deadline for submission is **17 April 2026**. The Poster Minute Madness on the first day of the conference offers authors the opportunity to present their posters to the audience in a one-minute pitch.

Details on the programme, registration and the poster session: www.euroshnet.eu/conference-2026

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About EUROSHNET

In the EUROSHNET network, founded in 2004, KAN, the German Social Accident Insurance (DGUV) and the occupational safety and health institutions INRS and EUROGIP (France), CIOP-PIB (Poland), INSST (Spain) and FIOH (Finland) have joined forces to promote dialogue between occupational safety and health experts working in standardisation, testing and certification.

New EN 14404 standard: effective protection for the knee

Work performed in a kneeling position places considerable stress on the knee joints. The risks of harm to health are particularly high in the construction sector and the skilled trades. The EN 14404 standard, which was revised at the end of 2024, now covers a wider range of forms of knee protector and contains clear provisions for ensuring effective protection.

Screed layers, tilers, interior decorators and workers in other manual trades spend up to 70% of their working time in a kneeling position. This places considerable stress on the knee joints, menisci, joint capsules, ligaments and bursae. This in turn often leads to conditions such as meniscal injury and chronic bursitis, which are formally recognised in Germany as occupational diseases. Knee injuries such as abrasions and puncture wounds or skin diseases can also be very painful and lead to prolonged absences from work.

Organisational measures and technical aids are intended to obviate the need for work to be performed in a kneeling position. Where this cannot be avoided, suitable knee protectors must be worn to reduce the stress on the knee.

Standardisation of knee protectors

Knee protectors are standardised in EN 14404, Personal protective equipment – Knee protectors for work in the kneeling position. In the standard's latest revision, the experts on the European standards committee chose to divide it into six parts which describe the various test methods and four types of knee protector for different areas of application:

- Type 1 (Part 2 of the standard): wearable knee protectors that can be worn independently of clothing and are secured for example by straps.
- Type 2 (Parts 3 and 4 of the standard): knee pads (generally made of foam plastic) that are worn in pockets provided for the purpose in the trouser leg. In addition to the existing Type 2 knee protector, which is tested and certified in combination with trousers, a new, interoperable Type 2 knee protector has now been added in which knee pads and trousers are tested and certified separately in accordance with Part 4 of the standard series and can then be combined with each other as desired.
- Type 3 (Part 5 of the standard): knee mats or knee cushions laid on the ground rather than being attached to the body.
- Type 4 (Part 6 of the standard): kneeling systems worn on the body and offering an additional function, such as a kneeling seat.

Type 1, 2 and 4 knee protectors constitute personal protective equipment within the meaning of EU Regulation 2016/425. Knee protectors that have passed the mandatory type examination by a testing and certification body and thus meet the requirements of EN 14404 Parts 2 to 4 and Part 6 must be marked with the CE mark, the number of this standard and the performance level for puncture resistance.

Requirements and performance levels

Part 1 of EN 14404:2024 describes test methods for knee protectors. The requirements for the various knee protector types are set out in Parts 2 to 6. These include, for example, the innocuousness of the material, the force distribution and the shock damping properties. Another important aspect is the puncture resistance, for which the standard distinguishes four performance levels. The new level 1U supplements the existing Categories 0 to 2 and, like level 2, also guarantees protection on uneven surfaces.

Furthermore, requirements are set out for restraint of the knee protectors and for ergonomics and comfort. The knee protector must remain in the intended position when the wearer kneels and bends the knee. At the same time, the straps used for restraint must not compromise venous drainage in the leg. The standard also specifies how knee protectors are to be labelled and what information on safe and effective use is to be provided by the manufacturer.

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Parallel to the standard, DGUV Rule 112-191 (use of foot and knee protection) has also been revised. The new version (to be published shortly) refers to the new series of standards and contains a wealth of practical guidance and explanations for users of knee protectors.

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DIN/DKE SPEC on the digital product passport for batteries

The digital product passport will be a source of useful information on products in numerous product groups in the future (see KANBrief 3/2025). DIN DKE SPEC 99100:2025-02, Requirements for data attributes of the battery passport, shows that this information is relevant not only for the circular economy, but also for product safety and occupational safety and health. The specification is intended to serve as a basis for international standardisation activity. It provides the responsible economic operators with guidance in implementing the legal requirements, in particular Article 77 (Battery passport) and Annex XIII (Information to be included in the battery passport) of the Battery Regulation (EU) 2023/1542 and also the Regulation on Ecodesign for Sustainable Products (ESPR). Besides this, DIN DKE SPEC 99100 contains additional recommendations that are intended to nurture a sustainable and responsible circular economy.

Some of the data attributes are also important from a product safety perspective and for parties concerned with occupational safety and health. The digital product passport for batteries provides swift access to information on the manufacturer and the basic technical data of the battery, such as its capacity, voltage, usable energy, power capability, expected lifetime etc. Beyond this, it is a means for communicating detailed information on the elements (including hazardous substances) of which the battery is comprised, and on its disassembly, including the associated safety information, to affected parties. The document highlights the potential offered by digital product passports, which are set to become mandatory in the future for a wide range of products. This presents advantages for the occupational safety and health community, which can exploit this potential for other products used in the workplace. In KAN's view, this should, however, be achieved in normal standards committees, rather than by means of documents such as DIN/DKE SPECs or CEN/CLC CWAs, which are developed rapidly in ad hoc consortia.

Pilot phase for European Agile Specifications

In recent years, standardisation has faced growing criticism for responding too slowly to technological developments. The European standards organisations are therefore seeking to accelerate standardisation processes and to develop new formats that are more flexible and agile than traditional standardisation products (i.e. ENs, TSs, etc.).

A CEN-CENELEC task group, "Future-proof standardization process and deliverables", has developed a new standardisation product: the **European Agile Specification (EAS).** In the future, the type of document forming the final outcome of standards development work could be left open at the launch of the project. In this scenario, following production of the draft, the TC votes on whether to publish it as an EAS or proceed with development of a European standard in accordance with the established procedure. It is also possible for the document to be referred back to the working group, which would then decide whether to update the document or discontinue the project.

CEN/CENELEC members are not obliged to incorporate EASs into their respective national bodies of standards and withdraw conflicting national standards as is case with European standards. However, EASs must not conflict with existing European standards. A minimum requirement is for them to be available in English.

Selected TCs are to test the new EAS format in a pilot phase lasting until October 2026. The procedure will be submitted to the European Commission in the near future. Some issues must still be resolved: these include whether the format will be adopted, and whether EASs could be used by the Commission as a possible alternative to ENs for listing in the Official Journal and giving rise to the presumption of conformity. KAN is critical of this development and plans to submit a position statement to this effect to the standards organisations and the European Commission.

EU news flash

In mid-November, the European Commission launched a public **consultation** on the **revision of the New Legislative Framework (NLF).** The consultation's focus lies on how EU product legislation can be improved, particularly with regard to the circular economy and the digital transformation. Stakeholders have until 4 February 2026 to submit comments.
https://t1p.de/Consultation_NLF

In a further **consultation**, also running until 4 February 2026, the European Commission is gathering information, data and feedback on the **Market Surveillance Regulation** (EU) 2019/1020. The Commission's objective in this case is to assess how well the regulation is working and to identify any shortcomings. Based on the results, it will initiate a revision of the regulation.
https://t1p.de/Consultation_Market-surveillance

The **European Commission's 2026 work programme**, published in October, sets out the key initiatives the Commission intends to launch in the second year of its mandate. From an occupational safety and health perspective, the revisions of the Standardisation Regulation and the New Legislative Framework are of particular interest. Together with the revised Market Surveillance Regulation, these are to be published in a package termed „European Product Act" in the third quarter of 2026.
https://t1p.de/Commission-WP-2026

In October, the EU Statistics Office Eurostat published figures on **occupational accidents in the EU in 2023**. These figures show that 2.83 million accidents occurred, around five per cent fewer than in the previous year. At 3,298, the number of fatal accidents remained at a similar level to that in 2022.
https://t1p.de/Eurostat-accidents-2023

Events

27.01.26 » Online

Virtueller Normungsstammtisch der Next Generation DKE
Smart Standards – wenn Normen digital denken
DKE/VDE
www.vde.com/de/veranstaltungen/info?id=24033&type=vde%7Cvdb

04.-05.02.26 » Essen/Hybrid

Fachveranstaltung
Arbeitsschutztagung
Haus der Technik
www.hdt.de/arbeitsschutztagung-h020011286

25.-26.02.26 » Dortmund

Fachtagung
13. Symposium "Licht und Gesundheit"
Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA)
www.baua.de/DE/Angebote/Veranstaltungen/Termine/2026/02.25-Licht-und-Gesundheit

05.-06.03.26 » Dresden

DGUV Wissensbörse Prävention
Mensch-Roboter-Kollaboration 2.0 – Sichere Zusammenarbeit unter der neuen EU-Maschinenverordnung
Institut für Arbeit und Gesundheit der DGUV (IAG)
www.dguv.de/iag/veranstaltungen/wissensboerse-praevention/2026

10.-11.03.26 » Heidelberg

Seminar
CE-Kennzeichnung im Maschinen- und Anlagenbau
VDI-Wissensforum
www.vdi-wissensforum.de/weiterbildung-maschinenbau/ce-kennzeichnung

11.-13.03.26 » Kassel

72. GfA-Frühjahrskongress
Menschengerechte Arbeitsgestaltung
Gesellschaft für Arbeitswissenschaft (GfA)
www.gesellschaft-fuer-arbeitswissenschaft.de

17.03.26 » Dortmund

Fachveranstaltung
2. KI-Werkstatt: Forschung – Praxis – Arbeitswelt
Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA)
www.baua.de/DE/Angebote/Veranstaltungen/Termine/2026/03.17-KI-Werkstatt

17.-19.03.26 » Hybrid/Köln

Seminar
EU-Maschinenverordnung (EU) 2023/1230
MBT
www.maschinenrichtlinie.de/fortbildung/seminare/maschinenverordnung

05.-07.05.26 » Nancy (F)

Internationale Konferenz
Sustainable preventon of musculoskeletal disorders: New challenges for research and practice
INRS
https://en.tms2026.inrs.fr

20.05.26 » Online

Arbeitsmedizinisches Online-Kolloquium
Gefahrstoffe
Deutsche Gesetzliche Unfallversicherung (DGUV)
www.dguv.de/ipa/lehre/fortbildung

27.-28.05.26 » Helsinki (FIN)

European Conference
Digital and green innovations – Shaping the future of occupational safety and health
EUROSHNET
www.euroshnet.eu/conference-2026

20.-22.09.26 » Sankt Augustin

Seminar
Grundlagen der Normungsarbeit im Arbeitsschutz
DGUV Akademie/KAN
https://asp.veda.net/webgate_dguv_prod
🔎 570044

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