PEOPLE COUNT
A+A – THE WORLD’S LEADING TRADE FAIR FOR PERSONAL PROTECTION, OPERATIONAL SAFETY AND HEALTH AT WORK
Who do you trust more: man or machine? When was the last time you laughed really hard at work? What does safety mean to you? What aspects of your job would you keep, and what could be done by machines? What occupational H&S invention are you most grateful for? When did you last do something unsafe, even though you knew better, and why? Have you ever stopped to think about the working conditions of the people who make the products or provide the services you use? What risks are you prepared to take? What do you appreciate about your colleagues? Have you ever shouted at a machine?

Questions by Prof. Dr. Ralph Bruder
Institute of Ergonomics at Darmstadt University of Technology – for safety in analogue and digital workplaces
Behind every successful company there are healthy employees. So the fact that emergency responders need to be on top form goes without saying. As does the principle that a healthy working environment, personal protection for employees and operational safety are good for productivity and efficiency. Safety is therefore key to ensuring a company’s wellbeing. And safety is what everything revolves around at the A+A – the world’s leading trade fair and congress event for health and safety at work.

Focus Points

**Personal Protection**
- A new generation of professional workwear and digital innovations to assist workers with the responsibilities they bear and ensure their safety.
  - Personal protective equipment
  - Corporate fashion/identity/image wear
  - Fabrics for workwear, professional and protective clothing
  - Safe equipment and apparatus in the workplace

**Operational Safety**
- The safety of employees, as well as safeguarding production or services, has the same high priority everywhere – whether in large corporations, medium-sized companies or small businesses.
  - Fire protection, noise protection, etc.
  - Electrical safety, transport safety, etc.
  - Machine protection, building security, etc.
  - Environmental protection
  - Emergency management

**Health at Work**
- Physical wellbeing is relevant even for sedentary work – and it is an important factor in productivity. As are workplace health promotion and effective preventive measures.
  - Occupational medicine
  - Ergonomics
  - Diet, exercise, relaxation, substance abuse prevention
  - The future of work

A SUCCESS STORY “MADE IN DÜSSELDORF”

18 November 1954: the A+A opened the doors to its first occupational health & safety trade fair – 74 exhibitors on around 1,700 m², taking place alongside the A+A Congress with an impressive 2,000 occupational safety experts. And now: more than 1,900 exhibitors from over 60 countries and at least 67,000 trade visitors. From one of the earliest Messe Düsseldorf events to number 1 in its sector!
CAN YOU HOLD YOUR NERVE?

A pertinent question when the going gets tough. Height, depth, unforeseen complications – when more than just routine procedures are called for, rescue workers need not only expertise, but also determination and nerves of steel. Then a rescue and recovery operation is much more likely to have a successful outcome – for everyone involved.
And suddenly: “splash”. Water sprays everywhere. The vehicle floats briefly on the surface. And just few moments later, sinks nose first into the lake, or into the rescue team’s practice pool. Phew!

On either side of the pool, divers from the German Life Saving Association (DLRG) are getting ready to go to the rescue. Diving suit. Oxygen tank. Breathing mask. A confident leap. And in a few strokes they are at the vehicle – which is empty for training purposes. They attach air cushions, which are then inflated. The car rises to the surface and can be pulled out of the water, for example with a crane.

Specially trained rescue teams are deployed for particularly tricky rescue operations. For the safety of all concerned. After all, diving with breathing apparatus is not without risk, even for professionals. So every time the emergency services have to take to the water for a rescue operation, the team is as well prepared as can be.

And what if there are still passengers inside the vehicle? Even then, the right contingency plan will be put into place. See how events unfold in a special live show at the A+A!
Bridge pylon. Huge tree. Wind turbine. The higher a rope access technician has to climb, the better their fall protection equipment needs to be. Or so we might think. Yet even falls from low heights or into shafts can lead to serious or even fatal injury. At the same time, rope access technicians shouldn’t be solely dependent on rescue teams, but should hold their lives in their own – ideally well trained – hands.

Personal protective equipment, safe handling of equipment and regular training are all essential – as is one further aspect: mental strength. This also applies to rescue workers, who may quickly reach their psychological and physical limits when performing rescue operations at height. Only those who are in full control of the technology at their disposal and are prepared for anything will recognise the risks involved and still manage to work safely.

ALL IN PURSUIT OF A COLD DRINK!

When carrying out cleaning inside industrial-sized vats in breweries, there may be a risk of employees losing consciousness due to a lack of oxygen or toxic gases. Fall protection equipment ensures that they remain in an upright position and do not suffer serious injury. Completely different demands are made of equipment used for working on transmitter masts or solar PV systems. Experts from specialist companies work closely with users to find the safest solutions: with new materials, state of the art production techniques, creativity and innovation – which you’ll certainly find in abundance at the A+A!
PREVENTING DISASTERS LARGE AND SMALL AND STOPPING FIRES BEFORE THEY EVEN START!

This is how we could describe the everyday challenges of the Messe Düsseldorf company fire brigade. And what about the highlights – for example, when firefighters from other brigades meet up at the A+A and help advance the industry by kindling ideas on operational fire protection and emergency management?

“We enjoy visiting the A+A and finding out about all the innovations the market has to offer. For example, we selected our current protective clothing at the A+A 2017 and gave it a test run. We also tested the motionless detectors for our breathing apparatus at the trade fair. Our feedback then helps the exhibitors to optimise their products.”

Armin Wernick, Fire Inspector at the Messe Düsseldorf company fire brigade
ARMS ABOVE YOUR HEAD, BEND THE RIGHT ARM DOWN AND PULL THE ELBOW GENTLY BACK WITH YOUR LEFT HAND, HOLD FOR 20 SECONDS, AHHH...

This is the quickest way to promote better health in the workplace. And the simplest: with small stretches such as these, each employee can relieve aches and pains themselves. Things get a bit more complicated when it comes to designing healthy workplaces. A holistic concept is necessary here, incorporating occupational medicine, ergonomics, the promotion of exercise and a good diet, as well as guidance on handling and interacting with artificial intelligence. And, of course, the commitment of both employer and employee.

SIT WELL
› on an ergonomic office chair, which is height-adjustable, has a flexible seating position and can be optimally adapted to support your posture
› at your desk, which is adjustable in height and guarantees optimum legroom
› or stand up – for greater alertness: at your standing desk!
› other workplaces that involve standing: material handling on an assembly line with optimised ergonomics – just go with the (material) flow!

CLICK WELL
› use an ergonomic computer mouse that’s perfectly adapted to the shape of your hand
› get the position of your monitor right: not too close, eliminate glare – you should be able to see the whole screen when sitting/standing upright

EAT WELL
› have your keyboard 10 cm away from you when your hands are lying on the desk, to prevent finger and wrist strain
› don’t skip breakfast! The first meal of the day provides energy and reduces the risk of becoming overweight.
› don’t skimp on the coffee! According to the latest research, drinking coffee can actually lower the risk of intestinal cancer, diabetes, skin cancer and Parkinson’s disease.
› stay hydrated: Your body will thank you for it – at least 1.5 litres of water a day will give you more energy and a slimmer figure.
› brain food isn’t just a fad! Nuts, berries, or even a small piece of dark chocolate in your coffee break can really boost your brainpower.

LIVE WELL
› power naps: raise energy levels and can even lower blood pressure
› regular breaks: reduce stress levels, especially when you take the opportunity to move around as well
› plenty of daylight: top up your vitamin D
› even more fresh air: does your circulation the power of good
› green plants: trap pollutants and aid productivity
› the stairs: better for you than the lift – to keep you fit as a fiddle!
› the A+A: keeps you moving too – and up to date!
EXHIBITORS FROM  AUSTRALIA, AUSTRIA, BELARUS, BELGIUM, BOSNIA-HEZEGOVINA, BRAZIL, BULGARIA, CANADA, CHILE, CROATIA, CZECH REPUBLIC, DENMARK, FINLAND, FRANCE, GREECE, HONG KONG, INDIA, IRELAND, ISRAEL, ITALY, JAPAN, JORDAN, LATVIA, LITHUANIA, LUXEMBOURG, MALAYSIA, MONACO, NETHERLANDS, NEW ZEALAND, NORWAY, OMAN, PAKISTAN, PEOPLE’S REPUBLIC OF CHINA, POLAND, PORTUGAL, REPUBLIC OF KOREA, ROMANIA, RUSSIAN FEDERATION, SERBIA, SINGAPORE, SLOVAK REPUBLIC, SOUTH AFRICA, SPAIN, SRI LANKA, SWEDEN, SWITZERLAND, TAIWAN, THAILAND, TURKEY, UK, UKRAINE, UNITED ARAB EMIRATES, USA, VENEZUELA

VISITORS FROM  ALBANIA, ALGERIA, ANDORRA, ARGENTINA, ARMENIA, AUSTRALIA, AUSTRIA, BAHRAIN, BELGIUM, BOSNIA-HERZEGOVINA, BRAZIL, BULGARIA, CAMEROON, CANADA, CHILE, COLOMBIA, CROATIA, CZECH REPUBLIC, DENMARK, ECUADOR, EGYPT, ESTONIA, FINLAND, FRANCE, GAMBIA, GHANA, GREECE, HONG KONG, HUNGARY, INDIA, INDONESIA, IRAN, IRELAND, ISRAEL, ITALY, JAPAN, JORDAN, KAZAKHSTAN, KYRGYZSTAN, LATVIA, LIECHTENSTEIN, LITHUANIA, LUXEMBOURG, MACEDONIA, MALAYSIA, MALTA, MARTINIQUE, MEXICO, MONGOLIA, MOROCCO, NETHERLANDS, NEW ZEALAND, NIGERIA, NORWAY, PAKISTAN, PEOPLE’S REPUBLIC OF CHINA, PERU, PHILIPPINES, POLAND, PORTUGAL, QATAR, REPUBLIC OF KOREA, ROMANIA, RUSSIAN FEDERATION, SENEGAL, SERBIA, SINGAPORE, SLOVAK REPUBLIC, SLOVENIA, SOUTH AFRICA, SPAIN, SRI LANKA, SWEDEN, SWITZERLAND, TAIWAN, TANZANIA, THAILAND, TUNISIA, TURKEY, TURKMENISTAN, UK, UKRAINE, UNITED ARAB EMIRATES, URUGUAY, USA, VIETNAM, YEMEN
LOOKING GOOD.

10 out of 10! Fashion designer Guido Maria Kretschmer, who also hosts German TV show “Shopping Queen”, was awarded top marks by the 42,000 employees of Deutsche Bahn for designing their new uniform. He has also kitted out the employees of TUI, Deutsche Telekom, Emirates Airline and the Kempinski and Maritim hotels, with a corporate style that distinguishes them from their competitors. But the latest developments in corporate fashion offer even more advantages to the wearer!
Corporate fashion must achieve an optimum combination of function, comfort and design – at the very least. Ideally, it should also offer special features tailored to the specific working environment. Extra shoulder and knee reinforcements for sewer and drainage work. Special ventilation materials for waste collection. Thigh pockets for installers. Exclusive finishing touches for sales. Corporate clothing should be practical, provide protection and functionality – and, of course, look good.

The purchasing department is no longer the sole decision-maker when it comes to employee workwear. Surveys and extensive tests are designed to ensure that comfort and colour not only meet the requirements of the workplace, but also of the wearer. Nowadays, we are used to highly functional and comfortable sportswear. So we expect the same of our workwear! In fact, in many cases, higher costs as a result of new materials and a shorter useful life are now considered acceptable. Because workers’ approval of their corporate clothing is an increasingly important success factor for an attractive employer.

As soon as the models step onto the runway at the A+A fashion shows, it is clear that outdoor and sportswear features are here to stay in corporate fashion and workwear. On-trend mesh materials in places that need to be breathable. Flexible fabrics at the sides for optimum stretch. Cotton on the inside for a pleasant feel. Many different properties combined in one product. In addition, the industry is trying to weave new themes into the current collections: sustainability, which is increasingly becoming an integral part of purchasing guidelines. Added value through a QR code or RFID chip, which provide important care instructions. Safety concepts that use sensors to check whether work clothing is worn correctly. Sounds “fabricated”? Come and see for yourself at the A+A.
Perhaps it was the Dutchman Jan van der Heyden (1637-1712) who invented the hose. Until then, no attention had been paid to respiratory protection. Early breathing apparatus was very primitive: masks with tubes – no filters – reaching almost to the floor. These were soon followed by atmospheric breathing apparatus, which was supplied with fresh air from bellows. Not exactly practical. Self-contained breathing apparatus – the next stage of development – was even less so. And today? Breathing apparatus is getting smaller and smaller – and more effective: protecting against substances, particles and organisms that could enter the body via the respiratory tract.
HOW FIREFIGHTERS LEARNED TO BREATHE

1772  J. F. Glaser develops the first prototype gas mask
1774  Experiments with pure oxygen breathing apparatus
1785  Glaser develops the respirator
1795  A. von Humboldt designs the first self-contained breathing apparatus

Approx. 100 years later  Finally usable! Fire commissioner R. Horner from Basel invents an “oxygen tank breathing apparatus” with a 500 litre oxygen supply, pressure reducer and dosing valve
1902  C. B. König builds another “oxygen apparatus”, which attracts significant media interest! 3,000 such devices are subsequently supplied to the maritime transport sector and many other branches of industry

Then  the first rebreathers and the “Army Breather”

After the war  The development of compressed air breathing apparatus, which catches on quickly thanks to relatively low acquisition costs and ease of use

Since then  Respiratory protection has gone digital – computer controlled respirators with comfortable harnesses, carbon fibre bottles, heat-resistant straps and digital monitoring

And in 2019?  Innovations galore – at the A+A!

THE MOUSTACHE
WHEN? Until the 19th century.
HOW? If there’s a fire, attach the moustache to your nose to filter out larger particles and just ignore the toxic fumes as best you can.
VERDICT: an absolute last resort!

THE GLASS BOTTLE
WHEN? During World War I.
HOW? Remove the bottom of the bottle, fill with earth moistened with water or urine, seal with an air-permeable cloth or place in an empty tin can, hold your nose and breathe through the bottle.
VERDICT: don’t try this at home!

THE CANARY
WHEN? Until not so long ago.
HOW? For early detection of “firedamp” or “stinkdamp” (harmful gas mixtures), take the bird in its cage with you into the mine; exit the mine immediately if the bird falls silent.
VERDICT: the poor bird!

Breath means life – respiratory protection is therefore essential and features at the A+A as the most important part of your PPE!
The new car is looking good. It hasn’t got its windows yet. The employee on the vehicle assembly line at a major automobile manufacturer is getting the side windows ready. What next? Apply adhesive. With the help of a tube and application nozzle. All round the edge. Leaning over slightly, depending how tall this particular employee is. About 100 windows an hour. Phew, that’s pretty tiring work. Better let the Cobot do it!

The employee places the window in a custom-fit fixture, whilst the Cobot – short for collaborative robot – applies the adhesive. Effortless and repeatable ad infinitum. Then the employee steps back in. A process that allows everyone to play to their strengths: repetitive, ergonomically taxing movements are taken care of by the robot, whereas handling and installation are performed by the human.

Collaborative robot systems like this are just one example of the ways in which Industry 4.0 can improve the health and safety of workers. However, the fact that there is usually no safety barrier between human and robot also highlights the new challenges facing the occupational health and safety sector. After all, incalculable risk is entailed – for around 15 million jobs in Germany, which are changing directly or indirectly as a result of developments in Industry 4.0. Ever closer interactions between people, machines, processes, data and products will bring about a whole new type and intensity of physical and psychological stress. Adequate preventive measures, the systematic promotion of competence development and minimisation of risk behaviour are important new aspects of occupational health and safety.

Meanwhile, the car windows at the large automobile manufacturer continue to be installed apace. The risk and hazard assessment investigated all aspects of safety, ergonomics and cognitive stress – with a positive outcome. Much to the delight of the employee – and maybe of the Cobot, too!

**ACTION POINTS FOR OCCUPATIONAL HEALTH AND SAFETY 4.0**

› Machinery and plant safety
› Security of information technology
› Autonomous machines and means of transport
› Assistance systems
› Automation
› Human-system interaction
› Remote control and maintenance
› Data analysis
› Production and logistics technologies
› Technologies for product development and production planning

(Source: Industry 4.0: Challenges for Prevention – position paper by the German Social Accident Insurance association (DGUV), 2017)

* “Safe” in binary code
WE NEED TO TALK.

Designed to meet the needs of the people: occupational health and safety in Germany. Another need that people have: the need to exchange ideas. And to work together, to transform challenges into new opportunities. This will be the case again in 2019: at the 36th International Congress for Occupational Health & Safety and Occupational Medicine, running alongside the A+A. This leading joint event for occupational health and safety in Germany is a meeting place for all those involved in this sector: experts from industry, trade and commerce, management, politics and science – and hopefully you too!

TOPICS IN 2019

› The future of work
› Occupational health & safety policy: national and international
› Professions, industries, networks
› Technology and occupational health and safety legislation
› Health at work – competence, conduct, resources
› Job design, organisation of working hours
› Industrial health and safety
› New work equipment and procedures
New products, solutions, ideas. So that people can work more safely, healthily and efficiently tomorrow. In workplaces that have never changed so quickly before – and that will continue to do so in the future. The A+A creates the international platform to showcase these innovations – as the world’s leading trade fair for health and safety at work.


And the slow walk-through? Available to you in Halls 1 to 11 on more than 70,000 m² of exhibition space. We look forward to seeing you there!

PEOPLE COUNT – WORLDWIDE!
We also offer you and your business successful platforms for health and safety at work on an international level.

CONTACT
» www.aplusa-online.com

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