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New Proposals

1. [A New Technical Committee Entitled *Personal e-Transporters \(PeTs\)*](#)

The IEC has received a proposal for a New Technical Committee entitled *Personal e-Transporters (PeTs)* from the Belgian National Committee.

The scope of the proposed Technical Committee is as follows:

Standardization for use on the road or in the public space of electrically powered transport devices (ie no human (propulsion) power input) and where the speed control and/or the steering control is electrical/electronic.

It is proposed that the following matters would be considered by the new technical committee: safety and reliability; protection against hazards (fire and explosion hazards etc); maintenance; docking stations for public use, recharging, and recycling.

Standards Australia will be consulting with stakeholders for this proposal. For more information on the proposal, or to make a submission, please contact Stakeholder Engagement Manager, Simona Tomevska, at simona.tomevska@standards.org.au, by Friday 31 January 2019.

International

1. [New WTO publication analyses potential impact of Blockchain on international trade](#)

Amid growing interest and debate on Blockchain, the WTO launched a recent publication that seeks to demystify the technology and analyse its capacity to transform world trade. *Can Blockchain revolutionize international trade?* explores how the technology could enhance areas related to WTO work and examines challenges that will have to be tackled to unlock the technology's potential.

The publication introduces the technology with a basic explanation of how, as a tamper-proof, decentralized record of transactions, it allows participants to collaborate and build trust with each other. It describes different classifications of Blockchains and their current and possible applications in the various areas covered by WTO rules. In doing so, it provides an insight into the extent to which this technology could help with trade facilitation, including how it can hasten the transition to paperless trade transactions. It considers Blockchain's potential and limits in transforming services by looking at payment systems, insurance and the automation of contracts. The publication also discusses how Blockchain could help ease the administration of intellectual property rights and enhance government procurement processes.

Other potential benefits identified by the publication include opportunities to reduce trade costs, enhance supply chain transparency and open up new trading opportunities for MSME's

The publication reviews various challenges that must be addressed before the technology can be used on a wide scale and have a significant impact on international trade. These include issues such as whether the technology can be scaled up for large or complex applications, how immune it is to security threats, to what extent Blockchain platforms can be used in an integrated manner, and which legal issues need to be addressed to increase mainstream use of the technology. The publication calls for multi-stakeholder dialogue to assess the practical and legal implications of the technology and to develop collective solutions while provide flexibility for the technology to thrive.

"While this technology opens interesting opportunities, clearly it also raises legal, regulatory and policy issues that deserve our attention. We need to consider how to spread the opportunities and overcome the challenges. We can only do this if we are in full possession of the facts. We need to fully understand the technology – what it can do and what it can't do. And most importantly for us, we need to understand what it means for international trade," WTO Director-General Roberto Azevêdo said at the WTO workshop where the book was launched.

"This requires an informed debate. And it needs to go beyond trade experts. Blockchain is a technology that has the potential to break silos, so we should not create silos in this discussion. We need a debate among all stakeholders – the business community, blockchain experts, government authorities, representatives from other international organizations, and many others as well. With our new publication, and with today's event, we are seeking to inform the debate and bring together this wider community," he said. His full remarks are available [here](#).

Download the publication [here](#). Printed copies can be purchased from the [WTO Online Bookshop](#). Materials from the workshop, including the audio recording of the event, can be found [here](#).

Source: https://www.wto.org/english/news_e/news18_e/publ_26nov18_e.htm

2. Report shows sharp rise in the coverage of trade-restrictive measures from WTO members

The Director-General's annual overview on trade-related developments presented to members on 11 December at a meeting of the Trade Policy Review Body (TPRB) shows a significant increase in trade coverage of trade restrictive measures by WTO members from mid-October 2017 to mid-October 2018. While members continued to implement trade-facilitating measures, the trade coverage of the import-restrictive measures was more than seven times larger than that recorded in the previous annual overview. The report provides the first WTO-wide factual insight into the trade restrictive measures imposed in the context of current trade tensions and calls on WTO members to use all means at their disposal to de-escalate the situation.

In presenting the report to members, Director-General Roberto Azevêdo said:

"This proliferation of trade restrictive measures and the uncertainty created by such actions could place economic recovery in jeopardy. Further escalation would carry potentially large risks for global trade, with knock-on effects for economic growth, jobs and consumer prices around the world. I urge WTO members to use all means at their disposal to de-escalate the situation."

The report shows that 137 new trade-restrictive measures were put in place by members during the review period, including tariffs increases, quantitative restrictions, import taxes and export duties. This equates to an average of 11 new measures per month, which is higher compared to the average of nine recorded in the previous annual overview (mid-October 2016 to mid-October 2017).

During the same period, WTO members also implemented 162 measures aimed at facilitating trade, including eliminating or reducing tariffs and simplified customs procedures for imports and exports. At close to 14 trade-facilitating measures per month, this is an increase compared to the average of 11 measures in the previous annual overview.

It is noteworthy that the estimated trade coverage of import-facilitating measures (US\$ 295.6 billion) has also risen significantly during the review period and is 1.8 times larger than the figure reported in the previous annual overview. However, this trade coverage is half that of trade-restrictive measures, which amounts to US\$ 588.3 billion – more than seven times larger than that recorded a year ago.

The review recorded a similar trend in initiations of trade remedy investigations by WTO members and a sharp increase in terminations of trade remedy actions. Trade remedy measures continued to be a very important trade policy tool for members accounting for about 63% of all trade measures captured in this report. The trade coverage of trade remedy initiations and terminations recorded in the report is estimated at US\$ 93.6 billion (US\$ 17 billion more than a year ago) and US\$ 18.3 billion (US\$ 6 billion more), respectively.

Key findings

- This Report covers new trade and trade-related measures implemented by WTO Members between 16 October 2017 and 15 October 2018. It shows a number of important trends and developments in global trade policy making. While WTO Members continued to implement trade-facilitating measures, the figures show a significant increase in trade coverage of trade-restrictive measures.
- WTO Members applied 137 new trade-restrictive measures during the review period, including tariff increases, quantitative restrictions, import taxes and export duties. This

equates to an average of 11 new measures per month, which is higher compared to the average of nine measures recorded in the previous annual overview.

- The trade coverage of the import-restrictive measures (USD 588.3 billion) is more than seven times larger than that recorded in the previous annual overview.
- WTO Members also implemented 162 measures aimed at facilitating trade, including eliminating or reducing tariffs and simplified customs procedures for imports and exports. At close to 14 trade-facilitating measures per month, this is an increase compared to the average of 11 measures recorded in the previous annual overview.
- The trade coverage of the import-facilitating measures (USD 295.6 billion) has also risen significantly during this period and is 1.8 times larger than the figure reported in the previous annual overview, but half that of trade-restrictive measures.
- The review period witnessed a similar trend in initiations of trade remedy investigations by WTO Members and a sharp increase in terminations of trade remedy actions, compared to the previous annual overview. Trade remedy measures continue to be a very important trade policy tool for WTO Members accounting for about 63% of all trade measures captured in this Report. Initiations of anti-dumping investigations continue to be the most frequent trade remedy action. The trade coverage of initiations of trade remedy investigations recorded in this Report is estimated at USD 93.6 billion, more than USD 17 billion higher than the previous annual overview. The trade coverage of terminations of trade remedy actions is estimated at USD 18.3 billion, USD 6 billion higher than the figure reported in the last annual overview.
- The proliferation of trade-restrictive actions and the uncertainty created by such actions could place economic recovery in jeopardy. Further escalation would carry potentially large risks for global trade, economic growth, jobs and consumer prices around the world.
- WTO Members must use all means at their disposal to de-escalate the situation. The WTO will do all it can to support its membership and provide collective leadership.

Source: https://www.wto.org/english/news_e/news18_e/trdev_11dec18_e.htm

3. [New WTO publication reviews evolution of tariff negotiations and renegotiations](#)

On 4 December, the WTO launched a new edition of “Tariff Negotiations and Renegotiations under the GATT and the WTO”. The publication reviews how the procedures and practices regarding tariff negotiations have evolved since the General Agreement on Tariffs and Trade (GATT) was established over seven decades ago and highlights some of the major developments since the first edition of this book was published in 2001.

This second edition reviews progress in all areas of tariff negotiations and renegotiations since the establishment of the GATT in 1947. Since then, international trade in goods has increased dramatically, largely due to efforts by the world’s leading traders to reduce and eliminate tariffs multilaterally.

New developments highlighted in this edition include the successful conclusion of negotiations to expand the duty-free coverage of the Information Technology Agreement (ITA), tariff negotiations in agriculture and non-agricultural market access under the Doha Development Agenda, and the tariff

renegotiations regarding successive enlargements of the European Union. The publication also covers tariff negotiations for the accession of new members to the WTO, such as China and the Russian Federation, technical rectifications, and the implementation of changes in the WTO members' schedules of commitments due to the periodic revision of the Harmonized System (HS) used to classify traded goods on a common basis.

The publication reviews the current legal framework of tariff negotiations and renegotiations, the tariff negotiations held in the context of multilateral trade negotiations, and the bilateral and plurilateral negotiations under GATT 1947 and the WTO, including those that have taken place outside the context of tariff conferences and rounds of multilateral trade negotiations. It also explores the renegotiations that have been carried out under various GATT provisions.

Co-published with Cambridge University Press, this edition of "Tariff Negotiations and Renegotiations under the GATT and the WTO" also includes a series of conclusions and recommendations on ways of achieving further tariff liberalization and on updating tariff-related procedures. The book concludes with a selection of important documents, such as key provisions in GATT 1994 and decisions on procedures for tariff renegotiations.

Written by Anwarul Hoda, Chair Professor of the Trade Policy and WTO Research Programme at the Indian Council for Research on International Economic Relations (ICRIER) and former WTO Deputy Director-General, the publication will be of particular interest to negotiators, members of government, trade ministries, economists and academics specialized in trade policy and tariff negotiations.

Source: https://www.wto.org/english/news_e/news18_e/ita_30oct18_e.htm

4. [Invitation to attend and present at Standards and Regulatory Stewardship workshop jointly hosted by PASC and ISO](#)

The Pacific Areas Standards Congress (PASC) will be holding their Annual General Meeting in Wellington, New Zealand in April 2019. Prior to this year's meeting, ISO and PASC will be jointly hosting a one and a half day workshop on *Standards and Regulatory Stewardship*.

Stakeholders from across the PASC region are invited to attend the open workshop.

PASC has also invited their members to suggest regulators to attend and present at the Workshop in the following two sessions:

- Regulation in the 21st century and the role of standards
- Working together – cooperation between standards bodies and regulators

To find out more or express your interest, visit the PASC website; <https://pascnet.org/> and contact Senior International Engagement Manager, Karen Batt, at Karen.batt@standards.org.au.

ISO

1. [ISO forms partnership with World Bank Group to help countries facilitate trade](#)

ISO has partnered with the World Bank Group (WBG) to support ISO member national standards bodies in developing countries, based on their needs, with the implementation of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA). This will cover areas such as applying good practices for technical barriers to trade and, in particular, implementing conformity assessment procedures.

The partnership arrangement was made at a border agency cooperation workshop that took place from 14 to 16 November 2018 in Cape Town, South Africa, where ISO was invited to present on “Standards and trade facilitation”.

The event brought together senior officials from 12 African countries involved in the implementation of the TFA to share experiences and learn from each other. It was organized by the WBG, the WTO Secretariat, the International Plant Protection Convention (IPPC) Secretariat, the World Organization for Animal Health (OIE), the Food and Agriculture Organization (FAO) and the World Customs Organization (WCO).

The WBG’s Trade Facilitation Support Program actively supports developing countries to align their trade facilitation laws, procedures and processes to enable implementation of the TFA.

In most developing countries, the ISO member, or national standards body (NSB), is the national enquiry point as required by the WTO Agreement on Technical Barriers to Trade, and may also be a provider of conformity assessment services.

At the event, ISO also committed to provide the WBG with inputs on its TFA-related tools that apply to the activities of NSBs.

Source: <https://www.iso.org/news/ref2352.html>

2. [Making our world accessible with ISO standards](#)

Over a billion people around the world have some form of disability. Empowerment and inclusiveness of this large section of the population are therefore essential for a sustainable society, and make up the theme of this year’s International Day of Persons with Disabilities. The Day also contributes to the goals outlined in the United Nations 2030 Agenda for Sustainable Development, which pledges to “leave no one behind”. Many of ISO’s International Standards are key tools to achieving these goals, and there are many more in the pipeline.

From signage in the street to the construction of buildings, ISO standards help manufacturers, service providers, designers and policy makers create products and services that meet the accessibility needs of every person. These include standards for assistive technology, mobility

devices, inclusivity for aged persons and much more. In fact, the subject is so vast, we even have guidelines for standards developers to ensure they take accessibility issues into account when writing new standards.

Developed by ISO in collaboration with the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU), ISO/IEC Guide 71, Guide for addressing accessibility in standards, aims to help standards makers consider accessibility issues when developing or revising standards, especially if they have not been addressed before.

The International Day of Persons with Disabilities is dedicated to building the peaceful and prosperous world outlined in the 2030 Agenda and its corresponding 17 Sustainable Development Goals (SDGs) – much like hundreds of ISO standards. Examples include ISO 17049 on the use of braille in accessible design, ISO 23599 on assistive products for blind and vision-impaired persons and the upcoming ISO 21902 on accessible tourism, which all contribute directly to SDG 3: Good health and well-being.

In addition, standards such as ISO 37101, Sustainable development in communities – Management system for sustainable development – Requirements with guidance for use, are invaluable for achieving SDG 11 (Sustainable cities and communities), which helps to make cities inclusive, safe and resilient.

Source: <https://www.iso.org/news/ref2351.html>

3. [New standard for excise duty stamps helps keep illegal products off the market](#)

They are a seal of approval that producers of consumer goods have paid their dues – and that the products are the real McCoy. Excise stamps not only ensure government revenues, they also help detect the illegal and counterfeit products that abound. A new standard for the security of tax stamps has just been published to make them more effective and protect the goods on which they are applied.

Alcohol and cigarettes are the most common items on which tax is levied, as governments aim to both raise revenues and deter the consumption of health-endangering products. But the range of taxes is on the rise as many countries are introducing new ones, such as the sugar tax on soft drinks, with the same objectives in mind. For this system to work effectively, tax stamps are required to demonstrate that the duty has been paid and that the product is legitimately available in the intended market.

However, where there is tax, there are always attempts at tax avoidance, breeding criminal activity that puts illicit and counterfeit products on the market, many of which may be harmful to the health of consumers. A foolproof tax stamp, however, is an effective way of literally stamping down on the problem.

ISO 22382, Security and resilience – Authenticity, integrity and trust for products and documents – Guidelines for the content, security, issuance and examination of excise tax stamps, is designed to help tax authorities improve compliance with regulations and establish an effective and efficient excise tax collection regime.

Ian Lancaster, Project Leader of the ISO technical committee that developed the standard, said tax stamps have the potential to make a very significant contribution to public health and government revenues, and thus it is essential they work as they should.

“We know that counterfeit and other illicit excisable goods not only deprive governments of tax revenues but can kill or cause serious health problems to consumers,” he said.

“A secure tax stamp makes it much more difficult for the criminals who target taxed products.

“Our aim in creating this standard is to help tax authorities to achieve the best in their tax stamps – to make them secure and well-protected so they, in turn, protect the goods on which they are applied and the public buying them.”

ISO 22382 was developed by ISO technical committee ISO/TC 292, Security and resilience, whose secretariat is held by SIS, ISO’s member for Sweden. Australia is a Participating Member of ISO/TC 292 with National Mirror Committee MB-025 *Security and Resilience*.

Source: <https://www.iso.org/news/ref2340.html>

4. [Pricing it right](#)

Price transparency is one way of gaining consumer trust by making purchasing choices easier. A new standard for unit pricing will help consumers compare products quickly and effectively, a win-win solution for all.

Unit pricing – or comparative pricing – is a way for retailers to show the price of a commodity in relation to a standard unit of measure, such as the kilogramme or litre. For example, for a 500 ml carton of milk offered at USD 1.95, the unit price would be USD 3.90 per litre.

However, this is not always consistent across retailers or products, creating an added layer of perplexity for shoppers and doing little for consumer trust. ISO 21041, Guidance on unit pricing, aims to clear up the confusion by defining unit pricing systems and enhancing transparency of pricing information.

In a recent study conducted by the Queensland University of Technology, Australia, consumers reported a significantly greater ability to process price information and higher confidence in their price judgements when unit prices are presented consistently within stores. Additionally, the research indicated that standardized unit price presentation was associated with more favourable attitudes toward retailers. John Furbank, Chair of the ISO project committee that developed the standard, said that by simplifying the price comparisons of products, ISO 21041 will benefit retailers and consumers alike.

“Shopping has never been more complex, with not only a greater choice but a wider range of packaging, in terms of weights and sizes,” he said.

“The Queensland study shows that clear and effective unit price information won’t necessarily drive consumers to just buy the cheapest product, but rather allow them to make more informed choices – and that reflects positively on retailers.

“ISO 21041, then, is a key tool for retailers, enabling them to provide clear and consistent pricing, ultimately building trust and loyalty as a result.”

The standard provides guidance on how unit pricing should be displayed in-store (both on-shelf and on packaging), online and in advertisements. It also highlights the importance of clarity and consumer education.

ISO 21041 was developed by ISO project committee ISO/PC 294, Guidance on unit pricing, the secretariat of which is held by Standards Australia, ISO’s member for the country. Australia holds the secretariat with National Mirror Committee CS-116 *Guidance on Unit Pricing*.

Source: <https://www.iso.org/news/ref2349.html>

5. [Mobilizing the green dollar: a new expert committee to help](#)

Moving to a sustainable world requires money, and lots of it. Trillions, not billions, according to the World Bank. A new international ISO committee has just been formed to take sustainable finance to another level.

Adapting to climate change and building a more equitable, sustainable world will require significant investment – around USD 90 trillion worth by 2030) for infrastructure alone. While much investment in green projects and “sustainable” solutions is already taking place, there needs to be more. Consistency in what sustainable finance really is and how it is put in place will drive confidence and uptake in the market, as well as encourage new initiatives and actions.

A new ISO technical committee, ISO/TC 322, Sustainable finance, aims to foster a sustainable investment market through the development of new International Standards. The first project for the committee will be to develop a framework for sustainable finance, which will consolidate concepts that exist and agree common terminology.

Mike Henigan, Secretary of the new committee, said there are already standards for governance, finance and sustainable development as well as on related topics like green bonds, but there is nothing holistically covering sustainable finance.

“Our aim is to mainstream sustainable finance, to make it more accessible and more effective for the industry and investors everywhere, thus enabling the alignment of the global financial system with the United Nations Sustainable Development Goals,” he said.

“This will involve bringing together the expertise on existing standards, harmonizing and clarifying what sustainable finance really is, and providing common terminology and international best practice and guidelines on putting processes in place.

“The initial framework will provide a platform from which organizations involved in sustainable investment can develop their products further and enable more and more players to enter the market,” he concluded.

Future work by the committee will consider the integration of sustainability into financial decision making, services and products; investment decisions that achieve good social outcomes in addition to financial returns; green finance, which combines “climate finance”, in support of concepts such as

clean energy, with broader environmental and conservation finance; and investment around specific types of projects such as energy efficiency programmes and sustainable cities.

The secretariat of ISO/TC 322, Sustainable finance, is held by BSI, ISO's member for the United Kingdom. Australia is not a member of ISO/TC 322.

Source: <https://www.iso.org/news/ref2350.html>

6. [ISO at COP24: International Standards as essential tools for climate action](#)

International Standards help to mainstream climate change actions in transitioning to a low-carbon, climate-resilient future, according to leading sustainability experts who spoke at an ISO side event at the COP24 in Katowice, Poland.

ISO held a side event as part of the 24th Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC COP24) taking place in Katowice, Poland, from 2-14 December 2018. Organized by the ISO Climate Change Coordination Task Force (TF7), in conjunction with the Institute of Environmental Management and Assessment (IEMA) and the International Accreditation Forum (IAF), the ISO event featured talks and discussions about the use of International Standards for driving action, performance and transition on climate change.

The Task Force works with experts from across ISO committees, guiding them to address critical aspects of climate change in ISO standards.

The opportunities that International Standards bring to the global challenges of climate change were discussed, such as mainstreaming climate action, supporting measurement and monitoring techniques, facilitating technology and non-technology innovation, and promoting behavioural changes and climate change adaptation. ISO standards can also contribute to the progress of the Sendai Framework for Disaster Risk Reduction that sets the pace for disaster mitigation by 2030.

Nick Blyth, Vice Chair of the ISO TF7, said that International Standards are fundamental in helping organizations advance climate change actions, whether they be management system standards that shape organizational culture and processes or new ISO technical standards.

“ISO standards are built on international collaboration and consensus, by some of the world’s leading experts in the field,” he said.

“They are relevant and powerful tools to help organizations not only measure their impact on climate change, but take strategic actions to transition towards the zero-carbon future and prepare for the inevitable challenges that result from our changing climate.”

The latest ISO standards and guidance related to climate change adaptation and greenhouse gas emissions were presented and discussed, including ISO 14064-1 for quantifying greenhouse gas emissions and ISO 14067 for quantifying the carbon footprint of products. The event also introduced new standards in development for adaptation to climate change (ISO 14090); impacts, vulnerability and risk assessment (ISO 14091); and green bonds for environmental performance of projects and assets (ISO 14030).

In addition, the ISO mapping exercise carried out in 2018, which links hundreds of ISO International Standards to the objectives of the United Nations Sustainable Development Goals, was profiled.

The ISO event can be viewed, along with all other side events, via video footage on the UNFCCC side events [webcast page](#).

Source: <https://www.iso.org/news/ref2354.html>

IEC

1. Can AI programmes think like humans?

Technology is changing so fast that it is sometimes, in all the excitement, it is easy to be carried away by the hype. Developments in artificial intelligence (AI) are a case in point.

For example, a chess-playing programme called AlphaZero, developed by the Alphabet-owned (Google's parent) AI research company DeepMind, has been making very important advances. AlphaZero's bravado on the chess board has led to reports in the media about "human-like intuition and creativity" and watershed moments in history.

The story is that AlphaZero has developed a new style of playing chess which is much closer to human improvisation than traditional computer chess. That is because AlphaZero learns from its past successes and mistakes, rather than calculating millions of possible permutations as it plays. For the record, according to Wikipedia, AlphaZero searches 80,000 positions per second in chess, compared to 70 million for the Stockfish chess engine.

AlphaZero uses (deep) neural network technology — sometimes called deep learning — made possible over the past decade by notable improvements in machine learning. As computing power has increased, deep neural networks have made machines capable of performing tasks in a way that would not have been possible using traditional programming techniques.

This has transformed technologies such as computer vision and natural language processing (NLP), which are nowadays being deployed at a massive scale in many different products and services. Manufacturing, healthcare and finance are just some of the sectors that use deep learning to uncover new patterns, make predictions and to guide decision making.

It is a fantastic piece of technology, but there is nothing human-like about AlphaZero's chess playing exploits. The programme is uniquely focused on the task of playing chess and has only the ability to recognize patterns in moves and positions and to act accordingly.

Developers differentiate between 'strong AI' and 'weak AI'. Strong AI, sometimes called general AI, refers to a machine able to solve any problem requiring advanced cognitive abilities. It would be able to deal with new situations and solve problems it has never faced before, not confined only to chess.

That is the technical explanation. Another way of looking at it is that unlike humans, AlphaZero has no consciousness of its actions. In other words, AlphaZero is not only unaware that it is playing chess, but also unaware about anything else. It is capable only of performing pre-programmed tasks, however brilliantly.

In 2017, IEC and ISO became the first international standards development organizations (SDOs) to set up a committee to carry out standardization activities for artificial intelligence. Subcommittee (SC) 42 is part of the joint technical committee ISO/IEC JTC 1.

SC 42 is working with other JTC 1 subcommittees, such as those addressing the internet of things, IT security, and IT governance, as well as the IEC Systems Committee (SyC) for Smart Cities.

SC 42 has set up a working group on foundational standards to provide a framework and a common vocabulary. Several study groups have been set up to examine the computational approaches and characteristics of AI systems, trustworthiness, use cases and applications and big data.

In addition to the joint committee with ISO on AI, IEC is a founder member of the Open Community for Ethics in Autonomous and Intelligent Systems (OCEANIS). It brings together standardization organizations from around the world with the aim of enhancing awareness about the role of Standards in facilitating innovation and addressing issues related to ethics and values.

Australia is a member of ISO/IEC JTC 1/SC 42 with National Mirror Committee IT-043 *Artificial Intelligence*. If you are interested in engaging with this work contact Policy Manager, Jed Horner, at jed.horner@standards.org.au

Source: <https://blog.iec.ch/2018/12/can-ai-programmes-think-like-humans/>

2. Protecting aviation against cyber threats

The European Aviation Safety Agency estimates that some 1 000 cyber attacks target aviation systems worldwide each month. A May 2018 UK Department of Transport Aviation Cyber Security Strategy report stresses that “it is not a matter of if but when cyber-attacks or system compromises are perpetrated against or impact upon the aviation sector.” There have already been cases of such attacks.

A study by the Florida Institute of Technology (Florida Tech) lists the following as aviation industry elements potentially vulnerable to cyber attacks:

- Access, departure and passport control systems
- Cargo handling and shipping
- Flight management systems
- Flight traffic management
- Hazardous materials transportation
- On-board computer and navigation systems
- Reservation systems

Cyber threats (such as ransomware and viruses) targeting other sectors may also affect the aviation industry. This was the case with the NotPetya ransomware that saw Ukraine’s Boryspil International Airport in Kiev lose access to its systems in June 2017.

Other instances are the result of deliberate cyber actions, such as the June 2015 distributed denial of service (DDoS) attack on the flight operations system of Poland’s LOT carrier at its main hub in Warsaw airport. The attack led to the cancellation of 22 flights, leaving some 1 400 passengers stranded.

Airports and ATM/ATC operations rely heavily on a range of industrial control systems (ICS) to operate efficiently. ICS integrate IT and OT. OT systems are often the most vulnerable as they incorporate commercial off-the-shelf (COTS) components that use IT protocols (such as Internet Protocol), which can more easily become targets of cyber attacks than better-protected IT systems are. ICS are central to air cargo handling, airfield lighting, fuel distribution, power management,

heating, ventilation and air conditioning systems. Any ICS-related incident may affect entire airport facilities.

Cyber risks to avionics systems are also real. The avionics systems potentially at risk include:

- Communication systems to ground control through data-links used to send two-way information between aircraft and ATC when an aircraft is too far away to make voice radio communication and radar observations possible
- Inboard WiFi and entertainment systems which may be used to display false or alarming messages to passengers and crews

A US Department of Homeland Security official hacked into the systems of a Boeing 757 passenger aircraft parked at Atlantic City airport, New Jersey, in September 2016. This was “a remote, non-cooperative penetration” without insider help or being onboard, using “typical stuff that could get through security”.

Aircraft manufacturers are aware of many of the risks. A panel session on Securing the critical supply chain, held at a June 2018 conference on Managing Cyber Risk in Critical Infrastructure organized by the Financial Times highlighted the steps manufacturers are taking to mitigate risks. Airbus Head of cyber security architecture Dr Kevin Jones explained that Airbus introduced a number of measures to protect its supply chain.

These include secure remote access for suppliers and a certain measure of access segregation, a full audit of the Airbus production facilities and those of its suppliers and the identification of vulnerabilities. Suppliers have to review their processes and make sure they meet Airbus standards. Similar practices are followed by other manufacturers, Bombardier Chief Information Officer Jeff Hutchinson noted at the time.

Source: <https://blog.iec.ch/2018/12/protecting-aviation-against-cyber-threats/>

3. Stakeholder participation enhances IECRE System for certification

As investment in renewables continues to grow, industry must ensure its equipment and systems are safe, reliable and durable.

[IECRE](#), the IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications, aims to facilitate international trade in equipment and services for use in RE in the marine, solar PV and wind energy sectors, while maintaining the required level of safety. It applies to products, services and personnel and provides testing, inspection and certification.

Global harmonization through the voice of industry

I presented the IECRE System during the recent China Wind Power 2018 event. In attendance were 13 financial institutions, including banks, insurance and leasing companies, and the session enabled constructive discussions and for attendees to express their requirements for large-scale RE investments.

A unique feature of the IECRE System is that all stakeholders have a voice, thanks to the stakeholder groups. This includes test labs, certification bodies, manufacturers and end users. It's the only conformity assessment (CA) system in which end users can define CA products.

There are many benefits of participation, here are some of them:

- The ability to give direct input into what conformity assessment products would best serve your organization
- Having access to the other stake holder groups
- The opportunity to share experiences with the largest wind energy companies
- Drive conformity assessment so it will save time and money
- Increased transparency of the equipment or work certified

Improving safety and reducing risk

The nature of RE equipment, systems and services is complex. IECRE aims to reduce the risks that come with such complex projects. To this end, discussions in progress with OEMs and certification body (CBs) stakeholders cover:

- The needs of end users for new conformity assessment/certification products
- Refining existing products by commenting on templates and documents
- Finding ways to improve the value of the type certificate by improving the detail provided by OEMs/CBs
- Development and use of the new "Project Design" certificate which is useful for project transfer or sale
- Certifying longer equipment life, as members are now seeing PPA contractual requirements for longer than 20 years
- Technical assessment and review of projects as they age or are modified

Asian financial institutions sign MoU supporting IECRE conformity assessment

Financial institutions recognize that harmonized standards and certification contribute to a more transparent and efficient certification environment for all stakeholders. Following the presentations, several Chinese financial institutions and two certification organizations (one Chinese and one American) signed a Memorandum of Understanding (MoU) in support of the development of IECRE System and in recognition of IECRE certificates and reports.

The aim of the MoU is to outline areas of cooperation among the parties, such as communication and supporting development of IECRE system, in order to build collaboration among IECRE, certification bodies and financial institutions and to consider endorsing IECRE certificates and reports as a proof of qualification.

[Find out more](#) the event and what other IECRE representatives had to say.

Source: <https://blog.iec.ch/2018/12/stakeholder-participation-enhances-iecre-system-for-certification/>

4. [Clean bill of health](#)

A new edition (IEC 61010-2-101) of a best-selling International Standard fills a gap and meets manufacturer requirements for the safety of medical equipment. There is no other equivalent.

Ahead of the game

The market for in vitro diagnostic (IVD) devices is on an upward trend, driven by an aging population and rising rates of obesity and chronic disease. According to research consultancy GlobalData Healthcare, the market is expected to generate revenues of USD 69 billion by 2024. The demand for self-testing kits is a case in point. These IVD appliances are used for the in vitro examination of specimens derived from the human body to provide information for diagnostic, monitoring or compatibility purposes.

“The self-testing devices are mostly used for monitoring diabetes and have been around for a number of years. But as the number of people suffering from diabetes is growing around the world, the demand for these devices is increasing”, says Holger Pufahl, who led work on the new edition.

New technologies such as molecular testing are also driving growth. Molecular diagnostics involve a collection of techniques used to analyze biological markers in the individual's genetic code. These tests are increasingly used by oncologists, for instance.

Health and safety go hand in hand: hospital and labs, in particular, have to make sure they comply with the strictest safety regulations. IEC prepares International Standards for the safety of measuring, control and laboratory equipment, which among other things, apply to laboratory equipment used in the analysis, handling and preparation of materials. These specifications apply to areas such as research, medicine, industry, education and environmental monitoring.

“Many IVD device manufacturers are medium-sized companies which spend a lot of money to develop the right medical equipment and make sure it is safe. They need to export IVD devices all around the world to recoup their initial investment. Meeting the Standard's specification is a way of ensuring their products can be sold on a worldwide basis”.

The IEC 61010-2 family of Standards deals specifically with laboratory equipment safety. It covers heating and sterilization devices, as well as radiation equipment, centrifuges and IVD analyzers.

These publications are part of the wider IEC 61010 series of Standards which specifies safety requirements for electrical and electronic equipment, essentially used for test and measurement purposes. This group of safety publications sets out the procedures for the preparation of these Standards.

Regulations are a key driver

A new publication IEC 61010-2-101, brings the specifications for IVD analyzers up to date, whether they are used for clinical chemistry, immunochemistry, haematology, microbiology, nucleic acid probe systems or self-test equipment.

“The reason we initially decided to draft a separate Standard for IVD equipment was to comply with EU legislation. The first IVD Directive was published in 1998 which led to the initial Standard. A more

recent one was published in 2017, which prompted a new version”, says Pufahl. According to the EU 2017/746 Regulation, “there are specific features of in vitro diagnostic medical devices, in particular in terms of risk classification, conformity assessment procedures and clinical evidence which require the adoption of specific legislation, distinct from the legislation of other medical devices”.

The rise in chronic illnesses will pose growing challenges for medical facilities, whether hospitals or labs. Making sure testing equipment for these chronic illnesses respect International Standards is one step in the right direction.

IEC 61010-2-101 was developed by IEC TC 66. Australia is a non-member of IEC TC 66.

Source: <https://www.iecotech.org/In-Store/2018-06/Clean-bill-of-health/>

5. [Keeping kids safe with a new international guide from IEC and ISO](#)

We all want kids to be safe, yet more than 830 000 children die needlessly each year from injuries and accidents that could have been prevented (1). What to do? A new international guide from the IEC and ISO is here to help.

Road accidents, falls, electrocution, burns and drownings are some of the key causes of fatal injuries to children, and while children’s toys and other children’s products are obvious potential sources of risk, there are many other hidden dangers in products or situations they encounter.

The newly-revised ISO/IEC Guide 50:2014, Safety aspects -- Guidelines for child safety in standards and other specifications addresses child safety everywhere, providing guidance to standards developers by describing an extensive list of hazards children might encounter and proposing strategies to avoid them. The Guide applies to standards related to anything a child could come across, such as devices, products of all kinds, packaging, structures, installations and built environments.

ISO/IEC Guide 50 also describes specific characteristics of children that make them more vulnerable to hazards, taking into account children’s different development stages and the ways they interact with devices, products and environments.

Guide 50 is not just for standards developers: government agencies, manufacturers and consumer associations will also find it useful.

This Guide was prepared by a Joint Working Group of the IEC Advisory Committee on Safety (ACOS) and the ISO Committee on Consumer Policy (COPOLCO).

Australia is a Participating Member of ISO COPOLCO with the COPOLCO Mirror Committee (CMC). To find out more or become engaged, contact Stakeholder Engagement Manager, Neidra Motha, at Neidra.motha@standards.org.au

Source: <https://www.iec.ch/newslog/2015/nr0715.htm>