

International Update

July 2018

New Proposals for International Standardisation for July 2018

- 1. A New Field of Technical Activity Sustainable Finance More>>
- 2. A New Field of Technical Activity Circular Economy More>>

International and regional items of interest for July 2018 are as follows:

- 1. WTO Members Intensify Discussions on Standards More>>
- 2. Australia's accession negotiations for government procurement pact reach milestone More>>
- 3. Australia wins landmark World Trade Organization ruling on tobacco plain packaging More>>
- 4. WTO members take stock of progress on implementing Trade Facilitation Agreement More>>

ISO items of interest for July 2018 are as follows:

- 1. New Criteria for Twinning Arrangements More>>
- Powerful New Weapon in the Fight Against Climate Change More>>
- 3. Auditing standard for management system standards now updated More>>
- 4. Improving health with new standards for cleaner cookstoves More>>
- 5. Update to the ISOlutions balloting tool ability to view comments More>>
- 6. Stronger cities for the future: a new set of International Standards released More>>
- 7. New ISO committee to develop standards on Karst More>>
- Invitation to an international workshop on Screening of GMOs in cotton and textiles More>>
- Invitation to an international workshop on 'Using ISO 31000 guidance on risk management in management systems' More>>

IEC items of interest for July 2018 are as follows:

- 1. A systems-based approach to cyber security More>>
- Smart grids to tackle energy challenges More>>
- 3. A glimpse into the future Pioneering research spurs on IEC multimedia work More>>
- 4. Why digital twins are growing in popularity More>>

^{*} For further information about any article please email: mail@standards.org.au

New Proposals

1. A New Field of Technical Activity – Sustainable Finance

ISO has received a New Field of Technical Activity Proposal from the British National Standards Body (BSI) to Form a new Technical Committee in the field of Sustainable Finance.

The scope of the new committee is proposed to be:

Standardization in the field of Sustainable Finance.

The programme of work will promote the integration of sustainability considerations and environmental, social and governance (ESG) practices into institutional investment decision-making and wider finance management. It will ultimately look to support the alignment of the global financial system with sustainable development goals.

The initial Sustainable Finance programme of work would align with the conceptual framework developed by the United Nations Environmental Programme (UNEP). The priority would be to establish a *Framework for Sustainable Finance Management Guide*, this would be followed by:

- 1. Integration of Sustainability considerations and ESG principles into financial decision-making and broader financial services and products
- 2. Green finance
- 3. Sustainable investment at the sector level / sustainable finance applications

Standards Australia will be consulting with stakeholders for this proposal. For more information on the proposal, or to make a submission, please contact International Governance Manager, Karen Batt, at karen.batt@standards.org.au by Friday 3 August 2018.

2. A New Field of Technical Activity – Circular Economy

ISO has received a New Field of Technical Activity Proposal from the French National Standards Body (AFNOR) to Form a new Technical Committee in the field of Circular Economy.

The scope of the new committee is proposed to be:

Standardization in the field of Circular economy to develop requirements, frameworks, guidance and supporting tools related to the implementation of circular economy projects.

The proposed deliverables will apply to any organization or group of organizations wishing to implement circular economy projects, such as commercial organizations, public services and not-for-profit organizations.

Excluded: specification of particular aspects of circular economy already covered by existing TCs, such as ecodesign, life cycle assessment in ISO/TC 207 Environmental management and sustainable procurement (ISO 20400: 2017 – Sustainable procurement — Guidance).

Note: the TC will contribute to sustainable development and especially to the implementation of the UN Sustainable Development Goals.

The proposed work programme for the field of activity consists of five components in the following order of priority:

- 1. A Management System Standard for circular economy (Type A)
- 2. A Standard on implementation guidance (Type B)
- 3. A Standard for supporting tools
- 4. Guidelines on the issues of circular economy projects
- 5. A collection of examples of implementation of circular economy projects

Standards Australia will be consulting with stakeholders for this proposal. For more information on the proposal, or to make a submission, please contact the Stakeholder Engagement Management team at sem@standards.org.au by Friday 31 August 2018.

International

1. WTO members intensify discussions on standards

WTO members continued their three-year review of the Technical Barriers to Trade (TBT) Agreement, proposing ideas on how to improve implementation of the Agreement at a TBT committee meeting on 19-21 June. Eleven new proposals were submitted by members, with the committee scheduled to conclude the review by November 2018. Members also discussed 61 specific trade concerns, 8 of which are new.

8th Triennial Review

The review process for the Technical Barriers to Trade Agreement started in November 2017 and is scheduled to be concluded at the TBT committee's 14-15 November 2018 meeting. Every three years, WTO members evaluate how they are applying the TBT Agreement. The review is driven by members' proposals for new work relating to specific topics addressed by the TBT Committee. The proposals submitted addressed the following themes:

Transparency

- The proposal submitted by the United States (<u>G/TBT/W/535</u>) is for members to provide up-to-date website information identifying the location of adopted final texts for technical regulations, as well as applicable conformity assessment procedures, and to task the WTO secretariat to maintain this information as a publicly-available list.
- The proposal submitted by Switzerland (<u>G/TBT/W/536</u>) is to improve the transparency on the handling of comments on notified draft measures by recommending the publishing of comments and replies online, on a voluntary basis.
- The proposal submitted by Australia (<u>G/TBT/W/537</u>) is to improve the notification process
 by using keywords in notifications, adding new fields in the notification document to
 indicate final measures and date of entry-into-force, and improving the effective use of
 <u>ePing</u>, the notifications alert system.

Labelling

The proposal submitted by the European Union (<u>G/TBT/W/534</u>) is for the TBT committee to
discuss how to facilitate compliance with mandatory marking and labelling requirements on
imported products and to develop recommendations or guidance to support members in
this respect.

Risk assessment, Quality Infrastructure and certification

- The proposal submitted by Chinese Taipei (<u>G/TBT/W/530</u>) is for members to take a holistic
 approach to risk assessment in committee discussions, including the use of risk assessment
 in respect of conformity assessment procedures, standards, and technical regulations.
- The proposal submitted by the United States (G/TBT/W/531) recommends various elements for thematic discussion among members as part of developing practical guidelines to support regulators' use of trade facilitative conformity assessment procedures, including national quality infrastructure (NQI), and use of international and regional systems.

 The proposal submitted by Brazil (<u>G/TBT/W/533</u>) encourages members to resume debate on the Indicative List of Approaches and suggested that thematic sessions be held to discuss practical examples of acceptance of conformity assessment results

How to use standards in regulation

The proposal submitted by Canada (<u>G/TBT/W/529</u>) is for holding a workshop on the issue of
incorporating standards by reference in regulation, and to discuss best practices and
potential ideas for international guidelines on policy considerations when referencing
standards.

Gender

 The proposal submitted by Canada (<u>G/TBT/W/532</u>) is for holding a session on the role of gender in the development of standards and technical regulations, to encourage an exchange of experiences by governments and standards development organizations, and to discuss ongoing work in this area.

How to improve technical assistance

The joint proposal submitted by the Philippines, Mauritius and Uganda
 (G/TBT/W/538/Rev.1) is to check the feasibility of expanding the current Standards and
 Trade Development Facility (STDF) dealing with the WTO Agreement on Sanitary and
 Phytosanitary Measures (SPS agreement) to include TBT matters, or to set up a dedicated
 TBT development facility.

Making the technical barriers to trade committee more efficient

- The proposal submitted by Brazil (<u>G/TBT/W/533</u>, Section 2) is for members to consider the creation of a voluntary procedure for ad hoc consultations to promote resolution of trade concerns
- The proposal submitted by United States (<u>G/TBT/W/539</u>) is to discuss appropriate participation of, and best practices for, observers to the TBT committee

Specific trade concerns

WTO members discussed a total of 61 specific trade concerns, 8 of which are new. Below is a summary of the new concerns. A full list of the trade concerns is available here. For more information on previous trade concerns see the 20-22 March 2018 and 8-9 November 2017 meetings.

1. Brazil — labelling of beverages, wine, and grape derivatives

The EU questioned a recent directive in Brazil on the labelling of beverages, wine, and grape derivatives. The EU maintained that the new requirements, including how the product denomination and list of ingredient must be indicated on the label, could hinder international trade, and urged Brazil to follow the international standards of the International Organization of Vine and Wine (OIV). Brazil said that the process of developing this directive was carried out in a transparent manner and in line with the WTO TBT Agreement. Public consultations on the draft resolution were notified to the WTO, and Brazil said answers to the concerns raised will be provided as soon as possible.

2. India — Testing and Certification of telegraph

The US expressed its concerns that the amendments introduced by the Indian government requiring local conformity assessment will lead to a duplication and overlap of testing and certification for a wide range of telecommunications and other equipment. The US said that other WTO members accept these products on the basis of a supplier's declaration of conformity or tests from relevant laboratories and schemes. India responded by saying that the aim of this additional requirement is to ensure the safety of the users and security of the network. It does not discriminate between foreign and local business, and recognizes testing results issued by partner countries.

3. US — Certification on security screening equipment

China voiced concerns about the unpredictability of the new certification requirements of the US Transportation Security Administration (TSA) for security screening equipment. China said the TSA had not provided its companies with information about the completeness or deficiencies of their applications to make necessary corrections if needed. The US replied that this TSA certification relates to procurement and is thus not a matter for discussion in the TBT committee.

4. United States — Energy Conservation Standards for Compressors

China expressed its concern that the US rules on energy conservation for compressors were inconsistent with relevant international standards. In particular, China questioned the classification methods for air compressors and equipment and asked for clarifications about its scientific basis. China noted that it submitted comments on the measure in 2016, but that no reply had been received. The US said that answers to all the comments received are published together with the final rule. The new concerns raised would be conveyed to the US Department of Energy.

5. Indonesia —Safety and Quality Standard of Alcoholic Beverages

Indonesia has introduced a draft regulation by which alcoholic beverages imported into its market have to meet specified safety and quality standards, in addition to new labelling and advertising requirements. Mexico expressed concern with the new standards, in particular with respect to advertising restrictions and the maximum established level of methanol in alcohol beverages, which is below the amount used in the production of tequila. Mexico asked Indonesia to clarify whether this specific requirement applied to tequila. Indonesia explained that this standard is used to support public morals and that the advertising restrictions apply to alcoholic beverages regardless of their origin.

6. Colombia — batteries imported into or manufactured in Colombia

Colombia has introduced a technical regulation applicable to zinc-carbon and alkaline cells and batteries imported into or manufactured in Colombia. The new regulation requires the removal of these kinds of batteries from any products that enter to the Colombian markets, to protect the environment and human health. Mexico, supported by the US, expressed concerns about the negative impact this regulation will have on the toy industry, which usually provide batteries inside toys. Mexico explained that this regulation would require their industries to have a separate line of production which would be more costly. Colombia said that this measure was already adopted and will go into effect as of January 2019, but it would nevertheless welcome comments from other Members.

7. Ecuador —Surface tension agents

Mexico raised concerns on Ecuador's draft technical regulation which only recognizes one testing method to prove that the requirements for biodegradability and phosphate content in surface tension agents has been met, and which therefore is not in line with international standards. The draft also requires that conformity assessment would need to be carried out through the accredited certification bodies in Ecuador. Ecuador explained that comments submitted by members on the draft regulation during the comment period had been taken into account, including the inclusion of various testing methods. Ecuador expressed its willingness to continue working bilaterally with Mexico to address concerns.

8. Indonesian — National Standard and certification requirements for the import of biscuits

Switzerland was concerned that these requirements will drive Swiss companies out of the Indonesian market, and asked Indonesia for update on the development of the measures and to confirm whether these measures will be implemented or withdrawn. Indonesia said that the implementation of this measure was postponed, as notified to the WTO.

Side events:

The following side events were organised at the margins of the TBT committee meeting:

- Information Session on SPS/TBT notification alert system ePing, 19 June:
 Members heard an update from WTO Secretariat on the ePing notification alert system. The session featured presentations by Sam Munsie, Assistant Director Office of Trade Negotiations, Department of Foreign Affairs and Trade from Australia and George Opiyo, TBT National Enquiry Point, Uganda National Bureau of Standards, who shared their countries' experiences in using ePing to engage domestic stakeholders regarding regulatory requirements affecting exports.
- Good Governance in Developing Modern Quality Infrastructure Systems, 20 June 2018: The event addressed good governance foundations for modern quality infrastructure necessary for integration into the global trading system. The event was organized by UNIDO in cooperation with the Swiss State Secretariat for Economic Affairs (SECO). Panellists included representatives from quality infrastructure governance organizations for accreditation (ILAC) and standardization (ISO), as well as representatives from the Swiss State Secretariat for Economic Affairs (SECO), , CARICOM Regional Organization for Standards and Quality (CROSQ), Economic Community of West African States (ECOWAS), UNIDO and the WTO Secretariat.
- Addressing Tensions and Avoiding Disputes: Specific Trade Concerns in the TBT Committee, 21 June 2018:

Dr Kateryna Holzer (PhD in Law & PhD in Economics, WTO Visiting Academic, formerly with the World Trade Institute of the University of Bern) presented her research on how raising specific trade concerns serves as a trade tension resolution and dispute prevention mechanism. The side event was organized by the WTO Secretariat, and included the participation of Kate Swan, Chairperson of the TBT Committee, Lauro Locks and Hoe Lim (WTO).

Source: https://www.wto.org/english/news e/news18 e/tbt 21jun18 e.htm

2. <u>Australia's accession negotiations for government procurement pact reach</u> milestone

Prospects for concluding Australia's negotiations to join the Government Procurement Agreement by end-2018 are growing, noted John Newham (Ireland), Chair of the Government Procurement Committee, at a meeting on 27 June 2018 which marked an "important milestone" for this accession. Discussions on the United Kingdom's bid to join the Agreement in its own right kicked off at the meeting and WTO members approved Belarus as an observer to the Committee.

Parties to the Government Procurement Agreement (GPA) also reviewed progress in the accessions of five other WTO members, namely China, the Kyrgyz Republic, the former Yugoslav Republic of Macedonia, the Russian Federation and Tajikistan.

Australia

GPA parties expressed hope that they could finalize Australia's GPA accession negotiations before the end of the year through the adoption of a draft decision to be formally adopted in the last quarter of 2018. The decision will invite Australia to accede to the Agreement based on the terms set out in its final market access offer, which outlines to what extent Australia commits to opening its government procurement market to the current GPA parties. Australia has been negotiating its GPA accession since September 2015.

New requests

Belarus

GPA parties accepted Belarus's bid for observer status to the Committee. It is the first country to ask to become an observer to the revised GPA while also negotiating its accession to the WTO. Parties welcomed Belarus's announcement that it is considering initiating negotiations to become a full party to the Agreement once it is admitted as a WTO member.

United Kingdom

The United Kingdom presented its bid to join the GPA in its own right as it will cease to be a party to the Agreement under the umbrella of EU commitments after its departure from the European Union. Under negotiation is a government procurement market worth at least GBP 67 billion (USD 88 billion), the UK said (based on 2013 figures). As an EU member, the UK has participated in the GPA for over 20 years.

The UK's initial market access offer and replies to a checklist on its national government procurement legislation were circulated to parties in June. The UK explained that, under the proposed offer, GPA parties will continue to enjoy the same level of entity coverage and of market access post-Brexit, as its offer replicates its current commitments under the EU. The UK also highlighted the urgency to agree upon its terms of membership in order to ensure its seamless continued participation in the Agreement after Brexit.

Further clarity was sought by parties on: *a)* details of the market access commitments the UK would be granting them; *b)* its EU withdrawal agreement, including timelines that would apply to the GPA; and *c)* the internal procurement legislation the UK intends to put in place. Several parties requested more time to review the documents on the table. The EU noted that no decision on a transition period has been taken yet.

The Chair welcomed the parties' apparent recognition of their "collective interest" in seamless ongoing participation of the UK in the GPA post-Brexit, with several acknowledging the relative urgency to do so. "This is a very positive step forward," he said.

The GPA aims to open up, in a reciprocal manner and to the extent agreed between WTO members, government procurement markets to foreign competition, and make government procurement more transparent. It provides legal guarantees of non-discrimination for the products, services or suppliers of GPA parties in procurement covered by the Agreement. The GPA is a plurilateral agreement — potentially open to all WTO members and binding only the parties to the Agreement. Currently, 47 WTO members (including the EU and its 28 member states) are bound by the Agreement.

Progress on other GPA accession talks

Several other WTO members are negotiating with the current parties their potential future accession to the Agreement.

China

A senior delegation from Beijing led by Mr Wang Shaoshuang, Deputy Director General of the Treasury Department of the Ministry of Finance, echoed President Xi Jinping's ambition to speed up China's GPA accession negotiations. An upcoming revised offer would likely include expanded coverage of sub-central governmental entities (proposed list of entities whose procurement would be open for competition⁽²⁾) and of state-owned enterprises (SOEs), Mr Wang said. The delegation also informed parties that its government procurement system is undergoing a process of domestic reform in line with the terms set out in the WTO's GPA.

Citing a Chinese proverb, the Vice Minister said: "it takes two hands to clap", and called on parties to express "pragmatic and reasonable expectations" that would give special consideration to China's specific situation.

Parties urged China "to submit a credible and ambitious offer" that responds to their past requests for improvement. All the members that spoke expressed hope for prompt progress on this important accession.

The Chair encouraged China to submit a revised and improved market access offer swiftly.

China's fifth revised market access offer had been circulated in December 2014.

Kyrgyz Republic

The discussions focused on a revised final offer that the Kyrgyz Republic had submitted a few days before the meeting. The delegation reiterated that joining the GPA remained a priority for them. "More time is needed for parties to review the revised offer on the table and to bring this accession to a conclusion without undue delay," the Chair concluded.

Former Yugoslav Republic of Macedonia

The former Yugoslav Republic of Macedonia and GPA parties further discussed the country's "ambitious" initial offer, which mirrors the EU's government procurement commitments under the GPA. It announced further improvements of its full-scale electronic procurement system to enhance efficiency and transparency and to ease access to the government procurement market for national and foreign operators alike.

These negotiations have made "an impressive start," the Chair said, just one year after they were launched. Members expressed hope for the negotiations to be swiftly concluded. Some also expressed concerns with certain country-specific notes and derogations in the current offer.

Russian Federation

Russia informed parties about its upcoming revised market access offer and updated replies to the checklist. Some of the concerns voiced by GPA parties about the current offer include high thresholds (minimum values of contracts whereby GPA provisions would apply) and limited entity coverage, among other things. "This accession would have a very positive impact on world trade," the Chair noted. Negotiations on Russia's GPA accession kicked off a year ago, with an initial market access offer.

Tajikistan

Tajikistan said it intends to circulate a revised market access offer shortly. Among the outstanding concerns expressed by GPA parties are a price preference programme and transitional thresholds. Parties said they look forward to receiving the final revised offer. "This accession made good progress in the past and it would be a pity not having it conclude in the near future", the Chair said. He encouraged the delegation to "submit a revised offer as soon as possible, taking into account parties' concerns". Tajikistan's latest offer was circulated in February 2017.

Other negotiations

Other countries with currently pending accession negotiations include Albania, Georgia, Jordan and Oman. In addition, Afghanistan, Kazakhstan, Mongolia, Saudi Arabia and Seychelles have GPA-related commitments in their respective Protocols of accession to the WTO — resulting from negotiations with WTO members. The Chair suggested reaching out to these countries to propose technical assistance from GPA parties and/or the WTO Secretariat to reactivate the negotiations.

Outreach

The WTO Secretariat said various other WTO members expressed interest in potentially joining the GPA during several workshops it held across several continents on trade and government procurement.

Implementation of the revised GPA

Parties welcomed the update by Switzerland, who stated its Parliament is finalizing the adoption of the Instrument of Acceptance of the revised GPA. The document will then be reviewed by the Swiss cantons.

Switzerland is the last party yet to implement, through ongoing legislative reforms, the revised GPA, which was adopted in 2012 and <u>entered into force in April 2014.</u> The Chair called on Switzerland to finalize the procedures "as soon as practically possible."

Work programmes

The Chair reported "good progress" on the work carried out by members on various agreed work programmes:

• **small and medium-sized enterprises**: members are working on a draft list of best practices to be circulated within the Committee;

- collecting statistics: members are working on improving their understanding of methodologies to collect data on procurement covered by the GPA;
- **sustainability**: the WTO Secretariat will circulate a draft report summarizing past work of the GPA parties. The document will be based on an outline provided by the parties.

GPA parties also discussed and were invited by the EU Commission to an international <u>conference on</u> the "Digital transformation of <u>public procurement</u>" to be held in Lisbon in October.

Note was taken of a <u>Workshop on Trade, Gender and Government Procurement</u> held at the WTO on 25 June 2018 at which WTO Director-General Roberto Azevêdo said: "Improving women's access to government procurement would unlock many opportunities for female entrepreneurs, with a direct impact on their economic wellbeing." His remarks are available <u>here</u>.

New chair

GPA parties elected Carlos Vanderloo of Canada as the new Chair. Warm thanks were expressed for the service of the outgoing Chair, John Newham of Ireland.

Next

The next set of formal and informal plurilateral discussions of the Committee will take place in mid-October 2018.

The report on the last meeting of the Committee (March 2018) is available here.

Source: https://www.wto.org/english/news_e/news18_e/gpro_27jun18_e.htm

3. <u>Australia wins landmark World Trade Organisation ruling on tobacco plain</u> packaging laws

Australia has won a clear victory in a major trade dispute over its pioneering tobacco packaging law, with a panel of judges at the World Trade Organisation (WTO) rejecting arguments brought by Cuba, Indonesia, Honduras and the Dominican Republic.

In its ruling, the WTO panel said Australia's "plain packaging" law contributed to improving public health by reducing use of and exposure to tobacco products, and rejected claims that alternative measures would be equally effective.

The ruling, which is expected to be appealed, also rejected the complainants' argument that Australia's law unjustifiably infringed tobacco trademarks and violated intellectual property rights.

The win for Australia effectively gives a green light for other countries to roll out similar laws. It could also have implications for alcohol and junk food packaging.

Australia's law goes much further than the advertising bans and graphic health warnings seen in other countries.

Introduced in December 2012 during the Gillard government, the law bans logos and distinctive-coloured cigarette packaging in favour of drab olive packets that look more like military or prison issue, with brand names printed in small standardised fonts.

Studies have shown that the law is an effective measure in reducing smoking numbers.

Honduras flags an appeal

The World Health Organisation (WHO) welcomed Australia's victory, saying the ruling by the WTO was likely to accelerate implementation of "plain packaging" laws around the globe.

"The ruling clears another legal hurdle thrown up in the tobacco industry's efforts to block tobacco control and is likely to accelerate implementation of plain packaging around the globe," the WHO said in a statement.

It said six other countries had brought in plain packaging laws — Hungary, Ireland, France, New Zealand, Norway and Britain — while another six had passed laws yet to be implemented — Burkina Faso, Canada, Georgia, Romania, Slovenia and Thailand.

"A number of other countries are examining the policy," the WHO added.

But Honduras, one of the four complainants, said in a statement that the ruling contained a number of legal and factual errors and did not appear to have been even-handed and objective, and indicated that it would appeal.

An Indonesian trade official said Indonesia would examine its options. Cuban and Dominican trade officials were not immediately available for comment.

Vera Luiza da Costa e Silva, head of the secretariat of the WHO's Framework Convention on Tobacco Control, said it was a huge day for tobacco control.

She saw a "domino effect" in plain packaging, with other countries already moving towards Australian-style rules.

"What this shows in reality is that plain packaging is a reality, it will happen anyway, and parties will progressively adhere more to plain packaging," Ms da Costa e Silva told Reuters.

Some countries were now discussing a tobacco "endgame", with less than 5 per cent of the population smoking, she said, adding: "Plain packaging is part of this path".

Source: http://www.abc.net.au/news/2018-06-29/australia-wins-landmark-wto-ruling-on-tobacco-plain-packaging/9921972

4. <u>WTO members take stock of progress on implementing Trade Facilitation</u>
Agreement

The implementation of the WTO's Trade Facilitation Agreement (TFA) is well under way with progress varying among different economies, WTO members heard on 26 June in Geneva at the launch of a new publication and at a meeting of the Committee on Trade Facilitation. Continued cooperation among all stakeholders remains key to ensuring that the Agreement's benefits of easier and less costly movement of goods are enjoyed by all, Director-General Roberto Azevêdo said.

"Almost 85 per cent of WTO members have now completed their domestic ratification processes. This is great progress, but of course there is more to do," DG Azevêdo said at the launch of a new report

entitled "Trade Facilitation and the Global Economy" published by the Organisation for Economic Cooperation and Development (OECD).

"We all know the potential that the TFA has to cut trade costs. This report takes a closer look at why this matters. For example, it highlights the difference that this will make for MSMEs (micro-, small- and medium-sized enterprises), which often face a prohibitively high cost of trading. It also highlights the fact that inefficient border procedures multiply the costs when goods and components cross borders many times during their production," DG Azevedo said.

"The Agreement is a truly inclusive endeavour. This was true of its design and its negotiation, and it will be true of its impact," he said. DG Azevêdo's full speech is available here.

The report finds that trade facilitation measures are being implemented worldwide although the progress is uneven across different countries and across the various provisions of the TFA, OECD's Julia Nielson and Evdokia Moise said at the book launch. Early improvements have been observed in areas such as automation and streamlining of procedures as well as engagement with the trade community, while the biggest challenge appears to lie in the cooperation of domestic and cross-border agencies, the report states.

WTO members heard further updates from the Secretariat on the implementation of the TFA at the Committee on Trade Facilitation meeting held after the book launch. The current rate of implementation commitments of the Agreement stands at 60.4 per cent as of 26 June. Broken down by level of development, this equates to a 100 per cent rate of implementation commitments by developed members, 59.1 per cent among developing members and 21.6 per cent among least developed countries (LDCs) according to the TFA Database. The figures correspond to the portions of the TFA that have been legally committed to implementation. Developed countries committed to implement the Agreement in full upon its entry into force in 22 February 2017, while developing and least-developed members set their own timetables for implementing the TFA, taking into account their respective capacities. These commitments have been communicated to the WTO in a series of notifications.

Developing countries will immediately apply the TFA provisions they have designated as Category A commitments. For the other provisions of the Agreement, they must indicate when these will be implemented and what capacity building support is needed to help them implement these provisions, known as Category B and C commitments. These can be implemented at a later date, with LDCs given more time to notify these commitments.

So far, the WTO has received 113 notifications of Category A commitments, approaching the overall number of notifications in this area that is likely to be received. The current number of Category B commitments stands at 67 and at 56 for Category C.

Furthermore, the Committee meeting featured an experience-sharing segment that focused on the themes of regional approaches to trade facilitation and the provision of opportunities for public comment and consultations on regulatory procedures.

Members also considered the most recent notifications since the last Committee meeting and called on each other to submit the necessary information for transparency. They further heard updates on trade facilitation activities of fellow members and of the <u>Trade Facilitation Agreement Facility</u>.

The next Committee meeting will be in early October.

Source: https://www.wto.org/english/news e/news18 e/fac 26jun18 e.htm

1. New Criteria for Twinning Arrangements

The ISO Technical Management Board (TMB) held a brainstorming session in February 2018 to review the current rules and process for Twinning in ISO, and decided to remove the restriction that Twinning could only be between a 'developed' and a 'developing' country in ISO (TMB Resolution 23/2018). The TMB also confirmed that the sole purpose of Twinning is **capacity building** for ISO members.

At its June 2018 meeting, the TMB approved new requirements and a new process for Twinning (TMB Resolution 64/2018) – for the full details, see this document. Key changes include:

- to be eligible for Twinning, the Lead partner needs to demonstrate sufficient knowledge and experience (at NSB level) of the role in question, and the Twinned partner needs to demonstrate a need for capacity building;
- all Secretariat or Chair Twinning arrangements at TC, PC and SC level shall be approved by the TMB; Convenor Twinning shall be approved by the parent committee; and P-member Twinning shall be registered directly by ISO/CS (no approval by a parent body necessary);
- all Twinning arrangements shall be subject to an annual review and performance assessment; and
- the proxy voting option has been removed from P membership twinning.

The new requirements and process for Twinning will come into effect immediately and will be incorporated into the ISO Supplement for the May 2019 edition.

The TMB has also approved a transition period for existing Twinning agreements to allow twinned partners to wrap-up their joint activities (TMB Resolution 65/2018). Existing agreements must be ended by May 2020, or by 5 years after the start of a Twinning arrangement, whichever date is latest. Additionally, from May 2019 these Twinning arrangements must also submit annual performance assessments, as required by the new process. Extensions/renewals of existing Twinning arrangements will not be permitted.

If you are interested in suggesting or forging a new Twinning arrangement then be sure to check out the new requirements and process and contact International Governance Manager, Karen Batt at karen.batt@standards.org.au for more details. ISO will publish a new 'Twinning request form' shortly (this form is required to apply for a new Twinning arrangement) and will be updating the Twinning guidance documents as soon as possible.

If you are part of an existing Twinning arrangement, please take note of TMB Resolution 65/2018 and start planning so as to make the most of the transition period.

Source: TMB Communiqué https://isotc.iso.org/livelink/livelink/fetch/-15620806/15620808/15623592/15788626/TMB Communiqu%C3%A9 Issue Nr 59 %28June 2018 %29.pdf?nodeid=19802261&vernum=-2

2. Powerful New Weapon in the Fight Against Climate Change

Rising earth temperatures are causing chaos and we need to act now. A new International Standard helps governments and industry take action towards reducing the damage.

Increasing greenhouse gas (GHG) emissions, largely as a result of burning fossil fuels, is heating up the planet and bringing with it catastrophic weather, disruptions to food production and other societal stresses. And it is mostly caused by us. According to the United Nations, as the world's population and standards of living grow, so too do the carbon and other emissions we release into the atmosphere.

A key goal of the United Nations (UN) 2030 Agenda for Sustainable Development, then, states that taking action to combat this phenomenon is essential, and it must be taken now. The newly published ISO 14080, Greenhouse gas management and related activities – Framework and principles for methodologies on climate actions, directly supports the Paris Agreement to limit global warming to below 2 °C and the UN Sustainable Development Goals by helping governments and businesses around the world do just that.

The standard provides a common framework for local and national governments to take appropriate actions for the mitigation and adaptation to climate change and helps them develop consistent, compatible and comparable policies and measures. It is also useful in assessing the effectiveness of these actions. What's more, it can be used by the private sector to identify potential and justifiable actions they can take, and by financial institutions to determine the impact of their investments.

Yustinus Kristianto Widiwardono, the Convenor of the working group that developed ISO 14080, said the standard will not only help organizations when it comes to measurement and reporting, it will also reduce risks and increase opportunities related to actions taken together with other organizations or governments due to its compatibility and transparency.

"ISO 14080 promotes setting ambitious long-term goals and targets for emissions reduction per industry sector," he said.

"It also directly supports the Paris Agreement, in particular Article 6 which states that the Parties should promote and facilitate the mitigation of greenhouse gas emissions."

ISO 14080 was developed by working group WG 7 of ISO technical committee ISO/TC 207, *Environmental management*, subcommittee SC 7, *Greenhouse gas management and related activities*. Its secretariat is held jointly by <u>SAC</u>, ISO's member for China, and <u>SCC</u>, ISO's member for Canada. Australia is a participating member of ISO/TC 207 with National Mirror Committee EV-021 *Environmental Labelling and Sustainable Development*.

Source: https://www.iso.org/news/ref2303.html

3. Auditing standard for management system standards now updated

Management systems help organizations achieve their objectives, and auditing them makes good business sense. The International Standard for auditing management systems has just been updated, giving more guidance than ever before.

Management system standards are growing in popularity as organizations see how they can be applied to manage interrelated processes to achieve their objectives. From quality or energy management to food or traffic safety, the list of standards aimed at helping organizations put in place effective management systems is getting long.

ISO alone has over 70 management system standards, building on international expertise and best practice to help organizations perform better, save money and develop a competitive edge.

In order to get the best out of a management system and ensure continuous improvement, regular auditing needs to take place. Not an easy task if, like most organizations, you have several management systems in place.

<u>ISO 19011</u>, *Guidelines for auditing management systems*, however, offers a uniform, harmonized approach, enabling effective auditing across multiple systems at the same time.

Denise Robitaille, Chair of the ISO project committee 302 hat revised the standard, said it was updated to ensure it continues providing effective guidance to address changes in the marketplace, evolving technologies and the many new management system standards recently published or revised.

"Other key changes in the 2018 version include the addition of a risk-based approach to the principles of auditing to reflect the enhanced focus on risk in both management standards and in the marketplace," she said.

"There are tips on auditing risks and opportunities as well as information on applying risk-based thinking to the audit process.

"In addition, guidance has been expanded in a number of areas such as managing an audit programme and conducting an audit."

ISO 19011 was developed by ISO PC 302 *Guidelines for auditing management systems*. Australia is a participating member with National Mirror Committee QR-101-01 *Management systems auditing and assessment*.

4. Improving health with new standards for cleaner cookstoves

Each year, millions of lives are adversely affected by smoke released from cooking on open fires or simple stoves fuelled by wood, charcoal and dung. The much-awaited series of international guidelines for safer cookstoves, just published, aims to help.

Some three billion people around the world rely on polluting stoves and open fires to cook the family meals. Not only are these methods inefficient, the harmful smoke exposure can increase the risk of contracting a range of diseases such as lung cancer, pneumonia and stroke, contributing to nearly four million deaths a year.

To help address the problem, ISO has developed a series of International Standards and related documents for cleaner, safer cooking solutions that will provide a platform for new and existing technologies to develop and grow. These include an International Standard on laboratory testing, a technical report on sector-specific vocabulary and a technical report for benchmarking lab testing measurements. Two of them have just been published, with the third due to be released later this year.

Ranyee Chiang, Chair of the committee that developed the standards and former Director of Standards, Technology and Fuels at the Global Alliance for Clean Cookstoves, said this is a positive step for the industry.

"Progress has been made, but with a global issue affecting three billion people, we must have ambitious goals," she said.

"These standards will help to motivate and mobilize designers and companies to raise the standards of cookstoves and accelerate the market for new technologies that benefit consumers."

<u>ISO 19867-1</u>, Clean cookstoves and clean cooking solutions – Harmonized laboratory test protocols – Part 1: Standard test sequence for emissions and performance, safety and durability, is the first ever International Standard for the testing of biomass cookstoves. Based on terms and definitions from <u>ISO/TR 21276</u>, Clean cookstoves and clean cooking solutions – Vocabulary, a new technical report establishing precise terminology for cookstove technology and testing, it specifies laboratory measurement and evaluation methods for the particulate and gaseous air pollutant emissions of cookstoves.

It will soon be joined by a Part 3 setting voluntary performance targets for cookstoves based on laboratory testing, which is due to be published in the coming months. Together, they will provide a useful portfolio of test protocols and laboratory measurement procedures to test the performance of cookstoves under controlled laboratory conditions.

The documents were developed by ISO technical committee ISO/TC 285, *Clean cookstoves and clean cooking solutions*, comprised of some of the world's leading specialists from the clean cookstoves and fuels sector, with special expertise on testing, design, business and policy.

The committee is jointly led by ANSI, ISO's member for the US, and KEBS, ISO's member for Kenya, with a strong involvement from other developing countries for whom clean cookstoves are most relevant.

Australia is a participating member of ISO/TC 285 with National Mirror Committee EE-003 *Clean Cook Stoves*.

5. <u>Update to the ISOlutions balloting tool – ability to view comments</u>

Following a recent update by ISO to the <u>ISOlutions balloting tool</u>, Australian members of mirror committees will be able to view votes and comments made by other Australian members on National Position ballots. This function will be available from Thursday 26th July for all new National Position ballots released.

The ability to view comments and votes from other members is aimed at increasing transparency and introduce efficiencies in reaching consensus among members on the Australian position.

Further updates to ISOlutions tools are currently underway and Standards Australia are playing an active role in steering the updates of these applications to ensure they are fit for purpose in Australia.

6. <u>Stronger cities for the future: a new set of International Standards</u> released

The populations of most world cities are growing fast, and with it come challenges and opportunities for keeping citizens safe and well. New International Standards for measuring and improving the performance of cities have just been published to help cities keep on top of the game.

Already, more than half of the world's population lives in a city and that number is to grow to nearly 70 % by 2050. Keeping up with rising urbanization and the stress it places on resources and infrastructure poses a serious challenge for cities everywhere, creating the need for effective planning, management and evidence-based policy making.

In order to make such decisions, cities need a reliable reference for measuring their performance, which is where the world's first International Standard for city indicators comes into play.

ISO 37120 (Indicators for city services and quality of life in communities) was the first set of internationally standardized city indicators that provide a uniform approach to what is measured and how, when it was first published in 2014. For the first time, cities were able to communicate amongst themselves using globally standardized, comparable data, allowing them to get insights into other cities and learn from each other like never before.

Now, the standard has just been updated, offering even more indicators to help cities effectively improve the quality of life of their citizens and plan for a more sustainable future.

Bernard Gindroz, Chair of ISO/TC 268, Sustainable cities and communities, the technical committee that developed the standard, said ISO 37120 was updated due to city demand and a gap analysis that was performed, demonstrating the need for many new indicators, including those for culture, urban agriculture and food.

"Currently, nearly a hundred cities have implemented, or are in the process of implementing, the standard, and they have been very vocal in terms of what new indicators they want and need, which we have incorporated into the latest version," he said.

"For example, there are now more comprehensive indicators on housing, such as vacancy rates and living space sizes, all essential if future cities are to manage growing populations effectively."

City managers and planners, politicians, researchers and business leaders are just some of those who benefit from the use of the standard, which covers everything from education and energy to transport, health and water.

ISO 37120 will soon be joined by two other complementary standards on indicators for smart and resilient cities, providing a comprehensive suite of internationally agreed guidelines that help cities everywhere to thrive.

ISO 37122, Sustainable development in communities – Indicators for Smart Cities, and ISO 37123, Sustainable development in communities – Indicators for Resilient Cities, are due to be released later this year.

In addition, a third new standard has also been published to give city leaders guidance on how to develop an effective model for their city that can help them achieve their sustainability goals. ISO 37106, Sustainable cities and communities – Guidance on establishing smart city operating models for sustainable communities, provides a toolkit of "smart" practices for managing governance, services, data and systems across the city in a collaborative and digitally enabled way.

The standards are part of the ISO 37100 series, which includes ISO 37101, the overarching management systems standard for sustainable development in communities.

ISO 37120 and ISO 37106 are available from your national ISO member or through the ISO Store.

Australia is not currently participating on ISO/TC 268, however Standards Australia is keen to hear from stakeholders interested in this work. For more information please contact the Stakeholder Engagement Management team at sem@standards.org.au.

Source: https://www.iso.org/news/ref2305.html

7. New ISO committee to develop standards on Karst

Following recent consultations on a new field of technical activity on Karst, ISO members have voted to support the work proceeding with the Chinese member body (SAC) assuming the role of Secretariat. The scope of the new committee ISO/TC 319 Karst is as follows:

Standardization in the field of karst terminology, sustainable development of karst resources, environmental protection and management of karst environment, as well as investigation and assessment (including modeling methods and mapping of karst systems).

Australia has initially requested observer membership, however Standards Australia is keen to hear from stakeholders interested in this work. For more information please contact the Stakeholder Engagement Management team at sem@standards.org.au.

8. <u>Invitation to an international workshop on Screening of GMOs in cotton</u> and textiles

The National Standards Body from the Netherlands has issued an invitation for stakeholders to participate in an international workshop on screening of GMOs in cotton and textiles on 16 and 17 January in India. Ahead of the workshop, two preparatory meetings (online) will be organised in September and November.

The aim of the project is to develop an ISO protocol to screen specific (processed) cotton samples (for instance, seed, leaves, seed cotton, lint, yarn, fabric and garment; both dyed and natural) for the potential presence of known GMOs (both authorised, as well as non-authorised). This protocol would be published as an International Workshop Agreement is the outcome of open workshops of stakeholders on particular topics and can sometimes be a precursor to specific standards development.

This protocol would help to create clarity in the sector with regard to what can and cannot be tested for GMO presence in cotton and textiles.

For further information please contact international.participation@standards.org.au

9. <u>Invitation to an international workshop on 'Using ISO 31000 guidance on</u> risk management in management systems'

There is a steady growth in the number of organizations, of all types and sizes that are using management systems. New ISO management system standards are also being developed to address specific aspects of an organization's activities, products or services. In this context, the high level structure makes it easier for organizations to integrate different aspects within their management systems. However, a large proportion of the organizations using an ISO management system standard may have little knowledge of ISO 31000 guidance on risk management. As they will already be well acquainted with the structure of a management system, linking ISO 31000 with the high level structure will provide these organizations with an introduction to ISO 31000 and to how risk management relates to their management system.

Many small and medium-sized organizations worldwide have benefited from implementing a management system. However, many of them see a challenge in addressing an area as complex as risk management. This aim of the project is to:

- a) Enable businesses and organizations to benefit from using ISO 31000 guidance on risk management in their existing management systems;
- b) Promote ISO 31000 among management system standards users and promote the use of management systems to users of ISO 31000.

The guidance developed will be published as an International Workshop Agreement which will support these SMEs in starting to address risk management. An <u>International Workshop Agreement</u> is the outcome of open workshops of stakeholders on particular topics and can sometimes be a precursor to specific standards development.

The National Standards Body from the UK (BSI) has issued an invitation for stakeholders to participate in an international workshop on using ISO 31000 guidance on risk management in management systems' on 15 October in London. With a second workshop scheduled for November. Ahead of the workshop, a preparatory meeting (online) will be organised on 6th August 2018.

For further information please contact international.participation@standards.org.au

IEC

1. A systems-based approach to cyber security

A holistic strategy, combining best practices with testing and certification, is the best way to build cyber resilience.

A risk-based approach to cyber security can be highly effective, especially when based on an assessment of existing, or potential, internal vulnerabilities and identified, or possible, external threats. This works best as part of a holistic approach that combines Standards with testing and certification, also known as Conformity Assessment, as opposed to treating them as distinct areas.

Such an approach increases the confidence of stakeholders by demonstrating not only the use of security measures based on best practices, but also that an organization has implemented the measures efficiently and effectively. A systems approach works by prioritizing and mitigating risks to an acceptable level, which requires a neutral approach that accommodates different kinds of Conformity Assessment — ranging from self-assessment to independent, third-party testing — according to the different levels of risk.

Many organizations base their cyber security strategies on compliance with mandatory rules and regulations. This may lead to improved security, but cannot address the needs of individual organizations in a comprehensive manner.

The most robust defences rely on both 'horizontal' and 'vertical' standards. Horizontal Standards are generic and flexible, while vertical standards cater to very specific needs. Two examples stand out.

The <u>ISO/IEC 27000</u> family of standards helps to protect purely information systems (IT) and ensures the free flow of data in the virtual world. It provides a powerful, horizontal framework for benchmarking against best practices in the implementation, maintenance and continual improvement of controls.

<u>IEC 62443</u>, the other horizontal standards series, is designed to keep OT systems running in the real world. It can be applied to any industrial environment, including critical infrastructure facilities, such as power utilities or nuclear plants, as well as in the health and transport sectors. <u>IECEE</u>, the IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components, has created global certification services based on the IEC 62443 series.

Complementing the horizontal Standards are custom solutions designed to meet the needs of specific sectors. There are vertical standards covering the specific security needs of the nuclear sector, industrial communications networks, industrial automation and the maritime industry, among others.

The systems approach is about sustainability, which is a vital component of any cyber defence strategy. Only through accurate risk assessment is it possible to strike the right balance between the level of protection and testing, and the overall cost.

Source: https://blog.iec.ch/2018/07/a-systems-based-approach-to-cyber-security/

2. Smart grids to tackle energy challenges

The transmission and distribution of electricity has to gear up to meet new challenges: a soaring world population and increasing pollution mean electricity will have to be delivered to more people and more efficiently as well.

According the International Energy Agency (IEA) by 2040 global energy needs will have risen by 30%.

New technologies are being integrated into the electricity grid to help ensure these targets can be met. Smart grids and distributed energy resources, such as the solar panels on our roofs, are progressively being introduced as they will ensure a more efficient way of getting electricity to end users. But introducing them poses a number of challenges, not least concerning their integration with existing transmission assets.

And that is where IEC International Standards come in. A wide number of IEC Standards have been prepared to facilitate the interoperability and the integration of these new technologies with the conventional network.

Grids are getting smart

The European Technology Platform SmartGrids, a European Commission initiative which focuses on research into the technology, has come up with one of the most widely accepted definitions for smart grids: "electricity networks that can intelligently integrate the actions of all users connected to it – generators and consumers and those that do both – in order to efficiently deliver sustainable, economic and secure electricity supplies. Smart grids employ innovative products and services together with intelligent monitoring, control, communication and self-healing technologies".

Key technologies behind a smart grid are sensors that measure the relevant parameters such as temperatures, voltage and current; communications that allow a two way dialogue with a device; control systems that enable a device to be reconfigured remotely; and user-interface and decision support systems that provide an overview of asset status and perform advanced analytics on data to provide information.

These smart grid technologies have been trialed extensively and are gradually being deployed around the world.

Integration is paramount

One of the Standards defining the communication and control interfaces of all distributed energy resources with the conventional grid is IEC 61850-7-420, published by IEC Technical Committee (TC) 57: Power systems management and associated information exchange.

This Standard is part of the IEC 61850 series which comprise the core publications applicable to the implementation and interoperability of smart grids. They include IEC 61850-6, which deals with communication in substations relating to intelligent electronic devices and IEC 61850-4, which applies to substation automation systems, for example. Digital substations are one of the constituent parts of smart grids. They require fewer cables and take up less space than conventional substations. They are also easier to maintain due to their standardized interface.

3. A glimpse into the future Pioneering research spurs on IEC multimedia work

Cutting edge research and development (R&D) projects are improving tomorrow's world for people with disabilities, for car drivers and even for radio listeners. IEC Technical Committee (TC) 100: Audio, video and multimedia systems and equipment, is preparing the ground for the appropriate International Standards.

What if the visually and hearing impaired person could use their clothes to understand us? How will driverless cars operate in complex urban environments? Researchers on several forward-thinking projects financed by the EU are coming up with answers to these questions. The technologies were outlined during a recent workshop with IEC TC 100, whose standardization experts are involved in several fields relevant to the research. "It is particularly exciting to study these new technologies as they will require IEC International Standards in order to be adopted worldwide", says David Felland, Chair of IEC/TC 100.

In the vanguard

Among these pioneering R&D endeavours, SUITCEYES is a three-year long research and innovation undertaking, which like its fellow projects, is funded by the EU's Horizon 2020 programme, a research and innovation plan with nearly EUR 80 billion of funding available over seven years (2014 to 2020). The researchers involved in SUITCEYES aim to develop a haptic interface, using smart textiles as a basis, to facilitate interactive communication with the deaf and blind. "Sensors will be integrated into the fabric and used to capture information about the surroundings. We will also utilize systems that are able to recognize and interpret human emotions. We will integrate vibration, tingling and temperature to convey messages on the parts of the body that are most suitable for reception of those signals", describes Nasrine Olson, one of the researchers on the programme.

Another of these R&D projects is INSENSION. The aim of this enterprise is to design and develop an information and communication technology platform which will help to improve the life of people with profound and multiple learning disabilities, using a number of advanced technologies previously not broadly available to them. They include gesture, facial and voice recognition, unobtrusive monitoring of physiological parameters as well as the internet of things. "I wanted to engage with research projects starting their work, such as INSENSION and SUITCEYES, to see if they could work with all the relevant Technical Areas (TAs) of TC 100 from the beginning, giving information on requirements for Standards that they identified, and offering a way of introducing young researchers to the standardization process", explains Kate Grant, Chair of the Advisory Group on Strategy of IEC/TC 100, who initiated the workshop.

IEC expertise

IEC/TC 100, one of the most prolific TCs within the IEC, has 20 different IEC TC 100/TAs, that deal with topics such as colour measurement and management (TA 2) or multimedia systems and equipment for cars (TA 17). Among these, TA 16 is set up to prepare International Standards for active assisted living (AAL) technologies, which can be defined as systems and devices for supporting

the well-being, health and care of disabled and older people. They include wearable electronic devices and specific user interfaces relating to audio, video and multimedia systems. The TA liaises with the IEC System Committee on Active Assisted Living (SyC AAL), which aims to foster the standardization of AAL products, services and systems to enable independent living for AAL users.

IEC/TC 100 decided to set up TAs instead of Subcommittees "because we wanted to experiment with a different approach that could help to speed up the development process, as multimedia systems are evolving so fast. The TA structure is more flexible as the groups can be created and disbanded rapidly, in line with new technology developments", David Felland explains.

As a case in point, the TC reorganized its TAs, following its most recent plenary meeting in San Diego. It created two new Technical Areas: TA 19: Environmental aspects for multimedia schemes and TA 20: Analogue and digital audio. TA 19 takes over the work previously accomplished by TA 12, TA 13 and TA 14 in areas to do with world-acclaimed standardization for the measurement of electronic display power consumption and energy saving, greenhouse gas emissions, battery-run-time management and environmentally conscious design. TA 20 assumes the mantle of TA 11, relating to audio Standards.

"We have come full circle: a lot of our initial work in TC 100 was about producing audio Standards for microphones and analogue systems, such as loudspeakers. 70 years later, we are looking at new revolutionary digital audio technologies which will totally change the way we experience sound. And TA 20 will be handling standardization in those areas", David Felland says.

Pump up the volume

One example of a new revolutionary technology for audio is project Orpheus, aimed at radio listeners. It was completed in May 2018. Researchers used object-based techniques for making radio broadcasts interactive, immersive and personalized. Object-based audio relies on a new generation encoder that inserts specialized object metadata in each audio track. This identifies each track as an object that can be personalized.

The benefits of this new technology will first be reaped by the hearing impaired. They will be able to increase the volume of separate dialogue tracks, in order to hear them better. "Object-based audio enables the listener to take control over what he or she listens to. You could be watching a football match, say, and not want to listen to the commentary but only immerse yourself in the sound coming from the stadium and the fans. That will be perfectly possible thanks to object-based audio technology", Felland adds.

Driving to the edge

Last but not least is UP-Drive. The aim of the project is to solve a number of complex technology issues which stand in the way of automating vehicles completely. For instance, cameras or radar systems are used for feature and landmark detection to help vehicles identify their location. The problem is that landmarks and landscape features vary over time and with the change of seasons. In order to overcome these hurdles, researchers on the project are focusing on the following areas:

 Robust 360° object detection using low-level spatiotemporal association, tracking and fusion mechanisms

- Accurate metric localization and geometrically consistent mapping in large-scale semistructured areas
- Mechanisms for efficient and cost-effective long-term data management across devices

TA 17: Multimedia systems for cars, develops Standards which specify the equipment for car infotainment, event monitoring and recording as well as driving assistance. The TA has recently released IEC Technical Specification (TS) 63033 on drive monitoring systems which provides the basis for video technology that could eliminate blind spots for car drivers in a variety of situations. They include parking, turning corners and driving in heavy traffic.

"Up-Drive is an interesting project which confirms that the work produced by TA 17 is aligned with these new developments. Keeping informed about this type of research shows just how much more work we can do in all these areas", Felland concludes.

Australia is a participating member of IEC/TC 100 with National Mirror Committee CT-002 *Broadcasting and related services*.

Source: https://iecetech.org/issue/2018-04/A-glimpse-into-the-future

4. Why digital twins are growing in popularity

A digital twin is an evolving mirror of a live asset that enables predictive maintenance. The technology influences the design, production and operation of a product.

A growing number of companies are using virtual representations of real objects, known as digital twins, to boost quality, efficiency and safety. According to a report by Gartner, 48% of the organizations that are implementing the internet of things are either already using, or plan to start using digital twins soon.

A good example is the Siemens factory in Amberg, Germany, which has a digital twin that is identical in every respect. It is used to plan the production process and programme machines, as well as for designing products and testing them.

Once there is an efficient working model and all the bugs have been ironed out, the physical factory begins production. The technology has allowed the factory to scale production to 15 million units a year, a 13-fold increase since 1989, without hiring more people, or moving into larger premises.

Digital twins are not restricted to the world of smart manufacturing. A leading oil expert claims that creating a digital twin of an asset can generate significant cost savings and increase production.

Elsewhere, a growing number of major infrastructure assets have digital twins. In Australia, for example, more than 2 000 sensors monitor the physical integrity of the Sydney Harbour Bridge in order to align it with a digital twin.

The bridge is just over a kilometre long, but the biggest object with a digital twin can probably be found at CERN, the European Organization for Nuclear Research, in Geneva, Switzerland. The 27km loop of the Large Hadron Collider (LHC) is not only the world's largest particle accelerator, but may also be the largest machine ever built.

Every component in the LHC is logged in an enterprise asset management (EAM) system as a digital twin.

The technology is made possible by the prevalence of inexpensive sensors, networks for the reliable transmission of data and intelligent analytics systems to process and make decisions. Technology is easily available and is enabling manufacturers to understand how their machines influence a product's tolerances, stresses and design.

According to Siemens the defect rate at the Amberg plant is close to zero. This is all the more remarkable given that the plant manufactures 1 200 different products on the same production lines.

Source: https://blog.iec.ch/2018/06/why-digital-twins-are-growing-in-popularity/