Draft Meeting Minutes

44th MEETING OF THE
IEC-ISO-ITU-UNECE MOU ON E-BUSINESS
MANAGEMENT GROUP (MoU/MG)

Executive summary

The 44th meeting of the MoU/MG was a hybrid meeting held 17-18 January 2023. The meeting was kindly hosted by UNECE, providing both physical location as well as the remote access. IEC chaired the meeting. ITU-T fulfilled the secretariat role.

Reports from organizations were circulated in advance allowing for information exchange and identification of coordination points. Some reports were received during the meeting.

Attendance

39 participants physically and remote from:

       IEC participants = 2

       ISO participants = 10

       ISO/IEC JTC 1 participants = 2

       ITU participants = 2

       UNECE participants = 18

       Partner organizations = CEN (1), OAGi (1), OASIS (1), UPU (2)

Total = 39 participants.

Apologies received (3): ISO/TC 68, ISO/TC 323, IEC/TC 3.

Reports and presentations

The following reports were made available on ISO Documents prior to the meeting:

- IEC/TC 3/SC 3D
- ISO/IEC JTC 1/SC 32/WG1, ISO/IEC JTC 1/SC 42
- ISO/TC 8, ISO/TC 154, ISO/TC 184/SC 4, ISO/TC 211, ISO/TC 215, ISO/TC 307, ISO/TC 321, ISO/TC 323, ISO/PC 317
- ITU-T
- UN/CEFACT ITP-PDA, M+T PDA, T+L, SCMP, F+P, A+A, AGRI, T+T
- OAGi.

The following reports were received during the meeting and are available on the same page:

- ISO/TC 37
- UN/CEFACT eData Management, CBM
- OASIS
- UPU.

The meeting focused on the existing areas of coordination, see section 7. New areas of coordination in the domain of e-business were identified: on privacy and privacy-by-design, on PKI, on Geospatial, on metaverse, on Digital COVID-19 certificate, and on SMART standards, for which an interest was raised and/or a need was seen.

The MoU/MG unanimously approved seven new Resolutions (R23/01, …, R23/07), revised one MoU/MG Resolution (R20/01), and approved 13 new Actions (A23/01, …, A23/13), The updated lists of MoU/MG Resolutions and Actions can be found in Annexes B and C, respectively.

Minutes of the meeting

1 Introduction

The 44th MoU/MG meeting took place on 17-18 January 2023 and was held as a hybrid meeting. This meeting was kindly hosted by UNECE.

2 Opening of the meeting

Following the decision to have an annual rotating leadership of this group between the four signatories of the MoU on e-business, Mr Stephen Dutnall (IEC) replaced Ms Maria Ceccarelli (UNECE) as MoU/MG Chair, and Mr Martin Euchner (ITU) replaced Ms Laura Mathew (ISO) as MoU/MG Secretary. Their mandates will run until the 45th MoU/MG meeting.

The Chair opened the meeting on 17 January 2023 at 10.00 hours CET. The meeting was attended by 39 participants (physical and remotely). The list of participants is available in Annex A.

Meeting documents identified as their "Nxxx" number, are available on the ISO webpage at: https://sd.iso.org/documents/ui/#!/browse/iso-adhoc/mou-mg

Those MoU/MG members who do not have access to this site, please contact Ms Laura Mathew.

3 Agenda

The draft meeting agenda was available as document N940. The agenda was adopted. During the meeting some additional contributions were received as such the final agenda was circulated at the end of the meeting. The final agenda is available in document N948 (ex N911, N940).

Actions and other matters of discussion were allocated under the relevant agenda items.

4 Approval of the minutes of the previous meeting

The minutes of the 43rd MoU/MG on e-Business meeting (1-2 December 2021) were available as document N908. The minutes were adopted without amendments.

5 Updates from organizations

Organizations were invited to provide a brief and concise update of news and issues related to the scope of the MoU/MG since the last meeting. The main focus of these updates is to identify coordination issues.

The meeting saw a need to facilitate improved reporting for greater consistency across reports and in particular for MoU/MG reports to respond to (and report on) the MoU/MG Resolutions and Actions. As such the following action points was raised and agreed

new *Action A23/01 [Secretariat issues]:*

> *The MoU/MG requests the four signatory organizations to develop a reporting template and to offer it for usage to the MoU/MG member organizations for unified reporting to subsequent MoU/MG meetings.*

With reference to MoU/MG Resolutions R15/02 and R17/03, the MoU/MG member organizations were reminded to submit their reports at least one week before the start of the meeting.

5.1 UNECE reports

5.1.1 UN/CEFACT International Trade Procedures Programme Development Area

Document N928 was presented by Ms Birgit Viohl, UN/CEFACT ITP domain coordinator, and Mr Aleksei Bondarenko, UN/CEFACT expert. Recent achievements included two new recommendations:

- Revision of Recommendation No. 2, *Semantic information and codes in international trade data exchange*;

- Recommendation No. 38, *Trade Information Portals*.

and a White Paper on private sector involvement in trade facilitation measures.

Upcoming activities include:

- Recommendation No. XX: *Private Sector Participation in National Trade Facilitation Bodies*;

- White Paper on Digitizing Transit Accompanying Documents (jointly with AGRI PDA);

- White Paper on Digital Product Conformity Certificates Exchange (jointly with AGRI PDA), identifying gaps in the digital process;

- Enhancing the Repository of Single Window Case Studies accompanying Recommendation No. 33 and the Repository of Single Submission Portals accompanying Recommendation No. 37.

The meeting took note of the report.

5.1.2 UN/CEFACT Methodology and Technology Programme Development Area

Document N938 was presented by Mr Marek Laskowski, UN/CEFACT expert. The report highlights the various work of the M+T PDA. Recent achievements were:

- the publication of UN/EDIFACT Directories 22B;

- Application Programming Interface Technical Specification (API TechSpec);

- JSON Schema Naming and Design Rules technical specification;

- OpenAPI Naming and Design Rules technical specification.

Current and upcoming activities include:

- JSON-LDWeb Vocabulary project.

In line with MoU/MG Resolution R16/06, the UN/CEFACTM+TPDA offered to assist the IEC/TC 57 on the development of the Core Component needs.

The meeting took note of the report.

See also section for coordination on API, and section 7 for coordination on Semantic harmonization, and on Data governance and data quality for e-business.

5.1.3 UN/CEFACT Transport and Logistics Domain

Document N931 was presented by Ms Hanane Becha, UN/CEFACT expert. The report highlights the various work of the T+ L Domain. Recent achievements were:

- international standard "*Integrated Track and Trace for Multi-Modal Transportation Business Requirements Specification (BRS)*"

- a segment focusing on the harmonization of standards for the digitalization of data and document exchange in multimodal transport and trade.

Upcoming activities include:

- A package of standards to be used in the digitalization of key documents accompanying goods transported by various modes: maritime, road, railway, air and inland water transport;

- IMO eFAL mapping;

- UN/EDIFACT Dangerous Goods Notification message (IFTDGN).

The meeting took note of the report.

See also section 7 for coordination on Semantic harmonization, Name and address, Traceability, and Autonomous / assisted driving, Intelligent transportation, e-vehicles.

5.1.4   UN/CEFACT Supply Chain Management and Procurement Domain

Document N932 was presented by Ms Hanane Becha, UN/CEFACT expert. The report highlights the various work of the SCMP Domain. Recent achievements were:

- Buy ship pay reference data model (approved and delivered in 2020);
- Export Packing List.

Current activities include:

- Supply chain track and trace project;
- Standard on transferable records project with a proposed White Paper;
- eNegotiation project using artificial intelligence (AI) or robot process automation (RPA);
- Automotive project.

The meeting took note of the report.

The meeting agreed new ***MoU/MG Action A23/04*** *[Electronic invoicing]:*

> *The MoU/MG invites all groups with activities on Electronic Invoicing to join its relevant work with UN/CEFACT Supply Chain Domain and to reuse its publicly available standards on Cross Industry Invoice (see*
> *https://unece.org/trade/uncefact/mainstandards#accordion_14_0_17_37_38_51_61_65_66)*

See also section 7 for coordination on Semantic harmonization, Data governance and data quality for e-business, Traceability, Artificial Intelligence and Machine Learning, and Autonomous / assisted driving, Intelligent transportation, e-vehicles.

5.1.5   UN/CEFACT Finance and Payment Domain

Document N933 was presented by Fabio Sorrentino, UN/CEFACT F+P Domain Coordinator. The report highlights the various work of the F+P Domain. Current achievements of this domain include a

- White Paper on Open Finance to support trade facilitation.

Upcoming activities include a

- project proposal for the development of an e-business justification based on a use case of the open finance scenario.

The meeting took note of the report.

See also section 6.2 for coordination on API, and section 7 on Semantic harmonization.

5.1.6   UN/CEFACT Accounting and Audit Domain

Document N929 was presented by Ms Anita Patel, UN/CEFACT A+A Domain Coordinator. The report highlights the various work of the A+A Domain with achievements:

- Accounting and Audit Reference Data Model project with a high-level Business Requirements Specification.

Ms Patel reiterated concerns of potential duplication and/or overlap of work with ISO/TC 295. Some mutual participation has taken place between the two groups, but the potential overlap seems to persist; and expressed the renewed interest in MoU/MG Resolution R16/14.

The meeting took note of the report.

The meeting agreed new **_MoU/MG Resolution R23/02_** *[Audit data]:*

> *With reference to MoU/MG Resolution R16/06, the MoU/MG encourages UNECE and ISO/TC 295 to continue coordinating and to resolve the potential duplication and/or overlap of work on audit data.*

See also section 7 for coordination on Semantic harmonization, and on Blockchain and Distributed Ledger Technology.

5.1.7   UN/CEFACT eData Management Domain

Document N944 was presented by Mr Kevin Bishop, UN/CEFACT. The report highlights the various work of the eData Domain. Current and upcoming activities of this domain include:

- UN/CEFACT Chain project with a White Paper on strategy for development and implementation of interoperable global blockchain technology infrastructure;

- Cross-Border Inter-ledger exchange for Preferential Certificates of Origin Project with a Business Requirement Specification;

- Verifiable Claims for Trade project with a paper and guidance material on how verifiable credentials can be used in the context of cross border trade;

- Artificial Intelligence for Trade Facilitation with a White Paper on the topic of Artificial Intelligence for Trade Facilitation with a focus on use of AI in Trade Facilitation;

- Digital Identity for Trade project and planned whitepaper that focuses on studying existing digital ID systems and presenting best practices for existing systems that can act as a guide for future implementation;

- Data Governance in cross border exchange of Trade Data towards developing guidance material on the best practices in data governance in the context of data localization, privacy and cross border exchange of trade data;

- Data Retention and Time Stamping towards developing guidance material on the use of time stamping and data retention;

- Trusted Third-Party Services and eNotarization towards developing guidance material on the use of trusted third-party services and eNotarization.

The meeting took note of the report.

ISO/IEC JTC 1/SC 32/WG 1 pointed to ISO/IEC 15944-12, *Information technology — Business operational view — Part 12: Privacy protection requirements (PPR) on information life cycle management (ILCM) and EDI of personal information (PI)*, which also addresses data retention, time stamping, and some aspects of revocation of digital signatures, and for which it is to be harmonized with.

See also section 7 for coordination on Data governance and data quality for e-business.

5.1.8   UN/CEFACT Agriculture, Fisheries and Agri-food Domain

Document N930 was presented by Mr Erik Bosker, UN/CEFACT expert. The report highlights the various work of the AGRI Domain. Recent achievements include:

- UNECE Recommendation No. 46, *Business Requirement Specifications*;

- a blockchain system for the cotton and leather value chains to pilot the project tools, with DNA markers and Satellite Imagery.

Upcoming activities include:

- White Paper Digital Product Conformity Certificate Exchange;

- White Paper Digitization Transit Accompanying Documents;

- Project "eQuality Certificate" (P1068);

- Sustainable Development and Circular Economy Reference Data Model;

The meeting took note of the report.

See also section 6.3 for coordination on Circular economy, and section 7 for coordination on Semantic harmonization, and Traceability.

5.1.9   UN/CEFACT Travel and Tourism Domain

Document N934 was presented by Mr Sachin Mehta, UN/CEFACT T+T Domain Expert. The report highlights the various work of the T+T Domain. Current and upcoming activities of this domain include:

- Business Standards for Sustainable Tourism project;

- Experience Programs Technical Artefacts;

The meeting took note of the report.

See also section 7 for coordination on Semantic harmonization.

5.1.10   UN/CEFACT Cross Border Management Domain

Document N942 was presented by Mr Kevin Bishop, UN/CEFACT. The report highlights the various work of the CBM Domain. Current and upcoming activities include:

- Cross Border Management Reference Data Model project;

- Cross-border multimodal digital corridors project for regulatory related movement of consignment data and consignment status information for trade facilitation with a draft White Paper;

The meeting took note of the report.

See also section 7 for coordination on Data governance and data quality for e-business.

5.2   ITU-T report

Document N923 was presented by Mr Olivier Dubuisson, ITU-T representative to the MoU/MG on e-business. The report compiles the results of ITU-T study groups on their results and ongoing activities on e-health, collaboration working methods, digital identity, intelligent transportation systems/connected vehicles, Internet of Things, APIs, circular economy, trust/trustworthiness, Big Data, traceability, accessibility, quantum key distribution, smart manufacturing, artificial intelligence and machine learning, and blockchain and distributed ledger technologies.

Mr Dubuisson highlighted the new ITU-T Joint Coordination Activity on digital COVID-19 certificate (ITU-T JCA-DCC), the new ITU-T Joint Coordination Activity (JCA-QKDN) on "Quantum Key Distribution Network", the new ITU-T Joint Coordination Activity on Machine-Learning (ITU-T JCA-ML), the new ITU-T Focus Group on metaverse (FG-MV); the planned but postponed IEC/ISO/ITU-T workshop "SPCG - Fostering more effective IEC/ISO/ITU-T standards coordination and collaboration".

The meeting took note of the report.

MoU/MG members informed that IEC has established new IEC/SEG 15 on Metaverse, and about plans to establish a new joint IEC and ISO group on metaverse. The forthcoming new 2023 European rolling action plan on ICT standardization will also feature a chapter on metaverse. It was therefore suggested to have a new coordination item on metaverse at the next MoU/MG meeting.

The meeting agreed new ***MoU/MG Action A23/11** [metaverse]:*

> *The MoU/MG encourages relevant groups to participate in the new ITU-T Focus Group on metaverse (FG-MV), and in the IEC SEG 15 on Metaverse to explore the notion of metaverse and its impacts on e-business.*

The meeting agreed new ***MoU/MG Action A23/12** [Digital COVID-19 certificate]:*

> *The MoU/MG invites interested groups to participate in the new ITU-T Joint Coordination Activity on digital COVID-19 certificate (ITU-T JCA-DCC) for coordination.*

See also section 6.1 for coordination on Internet-of-Things, section 6.2 on API, section 6.3 on circular economy, and section 7 on Healthcare Informatics, Big Data for e-business, Traceability, eAccessibility and eInclusion, quantum technologies in the scope of electronic business, Smart Manufacturing in the scope of electronic business, Artificial Intelligence and Machine Learning, Trust and trustworthiness, Blockchain and Distributed Ledger Technology, Autonomous / assisted driving, Intelligent transportation, e-vehicles, Identification, and new MoU/MG Resolution R23/03 [privacy-by-design].

5.3   IEC reports

5.3.1   IEC/TC 3 "Documentation, graphical symbols and representations of technical information"

No report was received, the Chair sent his apologies although he stated the same material from the previous year was still relevant.

5.3.2   IEC/TC 3/3D "Classes, Properties and Identification of products - Common Data Dictionary (CDD)"

Document N927 was presented by Mr Gernot Rossi, IEC/TC 3/3D Secretary. The report highlights the activities of IEC/TC 3/3D on IEC CDD (Common Data Dictionary); on Asset Administration Shell (AAS) IEC63278; and on COMDO (Common Data Repository). It was also highlighted the work being carried out with ISO/TC 186/SC 4, see 5.5.8.

The meeting took note of the report.

See also section 7 on Semantic Harmonization, and eCatalogues; product data, classification and terminology, code lists.

5.3.3   IEC/TC 57 "Power systems management and associated information exchange"

No report was received.

5.4   ISO/IEC JTC 1 "Information technology"

No report was received.

5.4.1   ISO/IEC JTC 1/SC 32/WG 1 "eBusiness"

Document N921 was presented by Mr Jake Knoppers, ISO/IEC JTC 1/SC 32/WG 1. The report highlighted:

- ISO/IEC 14662 Open-edi reference model/framework, and multipart series of ISO/IEC 15944 e-Business standards;

- Semantic equivalency and interoperability;

- Business transaction model (BTM) (ISO/IEC FDIS 15944-1, *Information technology — Business operational view — Part 1: Operational aspects of open-edi for implementation*);

- Public Policy Model of (common) legal requirements of rights of individuals as buyers in a business transaction, such as "consumer protection", "privacy protection", "individual accessibility", etc.. (ISO/IEC 15944-5, -8, -12);

- Traceability (ISO/IEC 15944-9:2015, *Information technology — Business operational view — Part 9: Business transaction traceability framework for commitment exchange*);

- Coded domains (ISO/IEC 15944-10:2013, *Information technology — Business operational view — Part 10: IT-enabled coded domains as semantic components in business transactions*);

- ISO/IEC 15944-7:2009, *Information technology — Business operational view — Part 7: eBusiness vocabulary*;

- Privacy protection standards: ISO/IEC 15944-5:2008, *Information technology — Business operational view — Part 5: Identification and referencing of requirements of jurisdictional domains as sources of external constraints*, ISO/IEC CD 15944-8, *Information technology — Business operational view — Part 8: Identification of privacy protection requirements as external constraints on business transactions*, ISO/IEC DIS 15944-12, *Information technology — Business operational view — Part 12: Privacy protection requirements (PPR) on information life cycle management (ILCM) and EDI of personal information (PI)*, and ongoing ISO/IEC DIS 15944-17, *Information technology — Business operational view — Part 17: Fundamental principles and rules governing Privacy-by-Design (PbD) requirements in an EDI and collaboration space context*);

- ISO/IEC 5218:2022, *Information technology — Codes for the representation of human sexes*.

The meeting took note of the report.

See also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design], for coordination on traceability, Blockchain and Distributed Ledger Technology, and Identification.

5.4.2 ISO/IEC JTC 1/SC 35 "User interfaces"

No report was received.

5.4.3 ISO/IEC JTC 1/SC 40 "IT service management and IT governance"

No report was received.

5.4.4 ISO/IEC JTC 1/SC 42 "Artificial Intelligence"

Document N922 was presented by Mr Wael William Diab, Chair of ISO/IEC JTC 1/SC 42. The contribution contains a very comprehensive overview of the AI and Big Data standards program and novel ecosystem approach. In particular he highlighted:

- works on data, trustworthiness, ethics, use cases for/or AI;

- JWG 3 (ISO/IEC JTC 1/SC 42 – ISO/TC 215) on AI-enabled Health Informatics;

- Ongoing works on Management System Standard (ISO/IEC 42001), and AI system impact assessment (ISO/IEC 42005), Multipart series AI – data quality for analytics and ML, AI – Data lifecycle framework, data ecosystem study areas, Guidelines for AI applications, environmental sustainability aspects of AI systems, testing of AI-based systems, AI standardization road-mapping;

- Foundational Big Data work completed and published: ISO/IEC 20546:2019, *Information technology — Big data — Overview and vocabulary*, and ISO/IEC 20547 series on Big Data reference architecture; and work underway on in a multipart series on AI – data quality for analytics and ML, and on AI – Data lifecycle framework;

- ISO/IEC TR 24030:2021, *Information technology — Artificial intelligence (AI) — Use cases*, with over 130 use cases; with ongoing work for more use cases;

- New ISO/IEC JTC 1/SC 42/JWG 2 Joint Working Group ISO/IEC JTC1/SC 42 - ISO/IEC JTC1/SC 7 on Testing of AI-based systems;

- AI standardization roadmapping;

- ISO/IEC AI workshop series;

The meeting took note of the report.

Other SDOs were invited to contribute their use cases to ISO/IEC JTC 1/SC 42.

UN/CEFACT has published a White Paper on the use of AI in trade facilitation (Yan: please provide URL to WP).

See also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design], and for coordination on Healthcare Informatics, Data governance and data quality for e-business, Artificial Intelligence and Machine Learning, Big Data for e-business, Smart Manufacturing in the scope of electronic business, and Trust and trustworthiness.

5.5   ISO reports

5.5.1   ISO/TC 8 "Ships and marine technology"

Document N920 was presented by Mr Ørnulf Jan Rødseth, ISO/TC 8, highlighting development of a FAL data model ("IMO Compendium"); progress on ISO 28005; and on digital signatures.

The meeting took note of the report.

It was pointed out that ISO/IEC JTC 1/SC 27 has also work on digital signatures.

The meeting agreed new ***MoU/MG Action A23/06** [PKI]:*

> *The MoU/MG invites ISO/TC 8 and ITU-T SG17 to coordinate their activities on public-key infrastructure (PKI) in e-business.*

See also section 6.2 for coordination on API, and section 7 on Semantic Harmonization, Data governance and data quality for e-business, Identification, and Autonomous / assisted driving, Intelligent transportation, e-vehicles.

5.5.2   ISO/TC 37 "Language and terminology", e-Accessibility

Document N943 was presented by Mr Christian Galinski, ISO/TC 37. The report highlighted that standardized terminology is indispensable for developing clearly understandable standards texts, ISO/TC 37 standards ISO 10241-1, ISO 10241-2, ISO 15188 concerning terminology standardization methodology are highly relevant. They are referred to or partially extracted into the ISO/IEC Directives. They are horizontal standards widely applied in almost all fields of standardization at all levels and beyond in many regulatory frameworks. The metadata used for standardized terminological entries should be included in the CDD. Standardized terminological entries are good "search keys" (e.g. in the OBP) when looking for standards. They could be used for rule-based standards development and quality control of content consistency all across standardization – an important aspect of semantic interoperability in standardization, which usually is undervalued.

Other "vocabularies" looking like terminology such as thesauri, (some) scientific nomenclatures, classifications, etc., have different communicative roles which need to be made explicit. This would reduce a lot of "noise" in machine translation, technical writing support systems, etc. User interface design must consider multilinguality and multimodality (e.g. for facilitating eAccessibility) from the outset (MoU/MG N476 Recommendation 2010) – see MoU/MG Resolutions R18/07 and 12/09. As there are (sometimes mutually hardly understandable) dialects and other language varieties to be taken into account in ICT-supported communication, the forthcoming ISO/TC 37 multipart standard ISO

21636 will be of relevance first of all but not only in mobile communication. ISO/TC 37/SC 4 develops multipart standard ISO 24620 on "controlled human communication".

The provisions for language coding and maintaining the ISO 639 language code will be covered by the revised ISO 639 "*Code for individual languages and language groups*". The code maintenance of the sets of language identifiers comprised in the present ISO 639 parts 1, 2, 3 and 5 will be managed by the future maintenance agency ISO 639/MA on the bases of the comprehensive rules and guidelines of the revised ISO DIS 639, *Code for the representation of individual languages and language groups*. The transition will take place in the forthcoming months. Even if the ISO 639 language code is hosted and jointly maintained by three language coding agencies (LCA), the code is part of the ISO 639 standard on which it is based. The new maintenance scheme is the result of a huge cooperation effort among the stakeholders of ISO 639 over the last about 10 years. When the revised ISO 639 is published, MoU/MG Recommendations R11/07 and R12/09 can be considered fulfilled. ISO 639 and the ISO 639 language code is indispensable for content interchange of all sorts in the WWW.

The meeting took note of the report.

The meeting recognized the importance of semantic interoperability, multilingualism, and accessibility und understood microcontent as a new horizontal concept.

See also section 7 for coordination on Semantic Harmonization, Data governance and data quality for e-business, eAccessibility and eInclusion, and on eCatalogues; product data, classification and terminology, code lists.

5.5.3   ISO/TC 46 "Information and documentation"

No report was received.

5.5.4   ISO/TC 68 "Financial services"

No report was received.

The meeting agreed new ***MoU/MG Resolution R23/01 [General]:***

> *The MoU/MG, being very concerned to have heard about Mr Patrice Hertzog's passing away, expresses its deep condolences to ISO/TC 68, to AFNOR, and to his family, in remembering his valuable contributions to the MoU/MG and his coordination efforts.*

5.5.5   ISO/TC 154 "Processes, data elements and documents in commerce, industry and administration"

Document N915 was presented by Mr Yu Shi, Chair ISO/TC154. Highlights in the report included:

- Results of the Joint syntax working group (with UN/ECE) with two standards on ISO 9735 Electronic data interchange;

- A new standard ISO 14533-1 with profiles for CMS Advanced Electronic Signatures (CAdES);

- Corrections to ISO 8601-1 on date and time;

- New work under development covering date and time, blockchain, traceability, trusted communication, data model, and eXtensible Markup Language (ebXML), smart contract-based B2B electronic transactions, agricultural products, industrial internet, digital trade, product quality data interchange, and Carbon data interoperability.

- Ad-hoc group "application of blockchain technologies for commerce, industry and administration";

- and plans to optimize or establish new JWG(s) with UNECE.

The meeting took note of the report.

ISO/TC 154 will want to consider if they see any necessity of establishing a liaison with ITU-T.

See section 7 for coordination on Blockchain and Distributed Ledger Technology, data governance and data quality for e-business, Trust and trustworthiness, and on traceability.

5.5.6   ISO/TC 171 "Document management applications"

No report was received.

5.5.7   Smart manufacturing in ISO

Document N925 was presented by Ms Laura Mathew, ISO CS. The report provides information on

- ISO's Smart Manufacturing Coordinating Committee (SMCC), that has published ISO/IEC TR 63306-2:2021, *Smart manufacturing standards map (SM2) — Part 2: Catalogue;*

- Collaboration of SMCC with IEC/SyC SM on smart manufacturing;

- Joint ISO/TC 184 - IEC/TC 65/JWG 21 on Smart Manufacturing Reference Model(s) linked to ISO/TC 184;

- IEC TR 63319 ED1, *A meta-modelling analysis approach to smart manufacturing reference models;*

- IEC 63339 ED1, *Unified reference model for smart manufacturing.*

The meeting took note of the report.

See also section 7 for coordination on Smart Manufacturing in the scope of electronic business.

5.5.8   ISO/TC 184/SC 4 "Industrial data"

Document N926 was presented by Mr Kenneth Swope, Chair of ISO/TC 184/SC 4. He reported on Digital Manufacturing, the Living Lab project demonstrating the use of Jira/Git as a technology foundation for Agile project management and a new Working Group "ISO CDD Validation Team" to manage standards in database format utilizing the IEC Common Data Dictionary. He also noted the involvement of ISO/TC 184 in the ISO SMARTs program, developments to make standards more machine compatible.

The meeting took note of the report.

It was agreed to have a new coordination agenda item on SMART standards at the next MoU/MG meeting, see also section 6.4.

See also section 7 for coordination on Open Source, data governance and data quality for e-business, Smart Manufacturing in the scope of electronic business, and on eCatalogues; product data, classification and terminology, code lists.

5.5.9   ISO/TC 211 "Geographic information/Geomatics"

Document N916 was presented by Mr Parslow, ISO/TC 211 Chair. The report highlighted activities on:

- geospatial standards with the Open Geospatial Consortium (OGC), and activities on corresponding APIs: ISO 19168-1:2020 *Geographic information – Geospatial API for Features – Part 1: Core,* and ISO 19168-2:2022, *Geographic information – Geospatial API for Features – Part 2: Coordinate Reference Systems by Reference*;

- raised concerns that the UN/CEFACT core components library (CCL 22B 28NOV22) already contains a number of items that replicate ISO/TC 211 components;

- on ISO/TC 211/AG 10 *XML Maintenance Group (XMG)* and ISO/TC 211/AG 6 *Group for Ontology Maintenance (GOM)* activities on code lists;

- on the ISO Geodetic Registry (ISOGR) (isotc211.org);

- ISO 19160-4:2017, *Addressing — Part 4: International postal address components and template language,* which was developed in collaboration with UPU;

- ISO 19115-2:2019/Amd 1:2022, *Geographic information — Metadata — Part 2: Extensions for acquisition and processing — Amendment 1*;

- ISO 19105:2022; *Geographic information — Conformance and testing*;

- ISO 6709:2022; *Standard representation of geographic point location by coordinates*;

- ISO 19131:2022; *Geographic information — Data product specifications*;

- ISO/PWI 19173, *SMART Terminology for geographic information;* and ISO/TC 211 Multi-Lingual Glossary of Terms published as a set of web ontology concepts browsable at https://isotc211.geolexica.org/;

- Ongoing development of standards for domain areas such as integrated transport (with ISO/TC 204), smart cities, and land cover/land use mapping (with UN Food & Agriculture Organization, FAO), and ISO 19144-3, *Geographic information – Classification systems – Part 3: Land Use Meta Language (LUML)* with FAO.

The meeting took note of the report.

Ms Sue Probert expressed UN/CEFACT's interest to re-establish contacts with ISO/TC 211.

The meeting agreed new ***MoU/MG Action A23/07 [Geospatial coordination]:***

> *The MoU/MG requests the ITU-T Secretariat to provide contact information for ITU-T SG11 and ITU-T SG20 to ISO/TC 211, and invites ISO/TC 211 to inform ITU-T SG11 and SG20 on its progress of activities with the Open Geospatial Consortium (OGC).*

See also section 6.2 for coordination on API, and section 7 on Semantic Harmonization, Name and address, Traceability, eCatalogues; product data, classification and terminology, code lists, and on Identification.

5.5.10 ISO/TC 215 "Health informatics"

Document N917 was presented by Mr Mike Glickman, ISO/TC 215 Chair. The report highlighted:

- ISO/IEEE 11073-40101:2022, *Foundational — Cybersecurity — Processes for vulnerability assessment*;

- ISO/IEEE 11073-40102:2022, *Foundational — Cybersecurity — Capabilities for mitigation*;

- New joint task force (ISO/TC 215/TF 1) among ISO/TC 215, ISO/TC 12 "Quantities and units" and IEC/TC 25 to study existing standards on quantities and units used in e-health;

- Leadership meeting of ISO/IEC JTC 1 and ISO/TC 215 on common "touch points" and enhanced liaison activities;

- New JWG with ISO/IEC JTC 1/SC 42 on AI enabled health informatics.

The meeting took note of the report.

> ***IEC/TC 3/SC 3D and UNECE were interested in the quantity and units activity and the MoU/MG secretariat will establish contacts.***

ISO/IEC JTC 1/SC 32/ WG 1 is working on anonymity and pseudo-anonymity.

ISO/TC 37 pointed out interoperability needs for medical translation and (tele) interpretation, where ISO/TC 37/SC 5 developed the ISO 21998:2020, *Interpreting services — Healthcare interpreting — Requirements and recommendations*, and will be considering further.

See also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design], and section 7 for coordination on Healthcare Informatics, and Artificial Intelligence and Machine Learning.

5.5.11 ISO/TC 295 "Audit data services"

No report was received.

The work is linked to MoU/MG Resolution R16/14.

See also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design].

5.5.12 ISO/TC 307 "Blockchain and electronic distributed ledger technologies"

Document N939 was submitted, however a representative was not available to present the report.

This relates to MoU/MG Resolutions R16/08, and R16/16.

See also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design], and for coordination on Blockchain and Distributed Ledger Technology, and on Identification.

5.5.13 ISO/TC 321 "Transaction assurance in e-commerce"

Document N918 was presented by Mr Shanfeng Dong, ISO/TC 321 Committee manager. The report highlighted:

- several work items (ISO DIS 32110, DIS 32111) and ISO/AWI 32112 on Transaction assurance in E-commerce, ISO/AWI 32122 on online dispute resolution, and ISO WD 32120, *Guidelines on sharing of product quality assurance related traceability information in E-commerce supply chains*.

The meeting took note of the report.

ISO/IEC JTC 1/SC 32/WG 1 is finalizing ISO/IEC FDIS 15944-9, *Information technology — Business operational view — Part 9: Business transaction traceability framework for commitment exchange*, and suggested ISO/TC 321 to coordinate with ISO/IEC JTC 1/SC 32/WG 1.

OASIS has a couple of standards in this area. ***It was concluded that OASIS shares the relevant information on the mailing list.***

It was further suggested that ISO/TC 321 liaises with ISO/TC 292/WG 4 to look into the issue of safety for consumers.

See also section 7 for coordination on Data governance and data quality for e-business, and on traceability.

5.5.14 ISO/TC 323 "Circular economy"

Document N919 was submitted, however a representative was not available to present the report.

See also section 6.3 for coordination on circular economy.

5.5.15 ISO/PC 317 "Consumer protection: privacy by design for consumer goods and services"

Document N936 was presented by Mr Rae Dulmage, ISO/PC 317. The report highlighted:

- ISO IS 31700-1*, Consumer protection — Privacy by design for consumer goods and services —Part 1: High level requirements*;
- ISO TR 31700-2, *Consumer protection — Privacy by design for consumer goods and services —Part 2: Use cases*;

- Planned change from ISO/PC 317 to a Technical Committee (TC) to meet privacy needs from a consumer centric perspective with respect to new technologies including those related to AI and to W3.

The meeting took note of the report.

ISO/IEC JTC 1/SC 32/WG 1 is developing ISO/IEC DIS 15944-17, *Information technology — Business operational view — Part 17: Fundamental principles and rules governing Privacy-by-Design (PbD) requirements in an EDI and collaboration space context*.

The meeting recognized a need for coordination on privacy-by-design; see also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design].

5.6 Participating international user groups and interested parties

5.6.1 OASIS

Document N941 was presented by Mr Harm-Jan van Burg, OASIS. The report highlighted:

- work being done in liaison with the MoU signatory organizations;

- The PRVD open-source project for blockchain transactional management;

- The Value Stream Management Interoperability (VSMI) TC;

- The Infrastructure Data-Plane Function (IDPF) TC;

- Code List Representation ("genericode") v1.0 methodology;

- Secure QR Code Authentication v1.0 OASIS Standard;

- OASIS open-source projects OriginBX (cross border tax and trade attestations) and the Baseline Protocol (Universal Verified State Synchronization & Multiparty Coordination Using Zero Knowledge);

- OASIS hybrid open source programs;

- Business Document Exchange (BDXR) TC;

- Submission of OASIS STIX and TAXII cyber threat information standards to ITU-T SG17;

- New OASIS open project NIEMopen "National Information Exchange and Model" (see NIEM, https://www.niem.gov), which is a common vocabulary that enables efficient information exchange across diverse public and private organizations.

The meeting took note of the report.

ISO/IEC JTC 1/SC 32/WG 1 found interest in the OASIS code list representation methodology, and for alignment, pointed to ISO/IEC FDIS 15944-10, *Information technology — Business operational view — Part 10: IT-enabled coded domains as semantic components in business transactions*, which helps to remove any ambiguities and adds semantic interoperability for any code lists for non-UN members entities (ref. multipart ISO 3166:2020, *Codes for the representation of names of countries and their subdivisions*).

For avoiding any trade mark issues, ITU-T SG17 has renamed STIX and TAXII as draft Recommendations ITU-T X.stie, *Structured Threat Information Expression (STIE)*, and X.taeii, *Trusted Automated Exchange of Intelligence Information (TAEII)*. SG17 is also progressing revision works of Recommendation ITU-T X.1144, *eXtensible Access Control Markup Language (XACML) 3.0*.

See also section 7 on new MoU/MG Resolution R23/03 [privacy-by-design], and for coordination on open source, and on Blockchain and Distributed Ledger Technology.

5.6.2   OAGi

Document N937 was presented by Mr Jim Wilson, President and CEO of OAGi. The report highlighted:

- Released Industrial Ontologies Foundry (IOF) Core Ontology v1.0;

- Released multiple OAGIS 10.8.x, including improved support for integrated logistics (S Series), and improved support for quality (QIF), and improved support for metadata;

- OAGi work areas.

The meeting took note of the report.

OAGi is contributing to ISO/TC 154/WG 7 "Digital business".

New ISO/TC 184/SC 5 "Interoperability, integration, and architectures for enterprise systems and automation applications" is working on the Score model.

See also section 6.1 for coordination on Internet-of-Things, section 6.2 on API, and section 7 on Data governance and data quality for e-business, and on Smart Manufacturing in the scope of electronic business.

5.6.3   GS1

No report was received.

5.6.4   SWIFT

No report was received.

5.6.5   CEN eBCG

Mr Ignacio Boixo, Chair of CEN eBCG, gave a verbal report.

Sustainability reporting standardization in Europe is an ongoing hot topic, requiring standard disaggregation lists and metrics, such as chemical compounds, physical units, geographical disaggregation (multipart ISO 3166:2020, *Codes for the representation of names of countries and their subdivisions*), economic sectors, currencies (ISO 4217:2015, *Codes for the representation of currencies*) and other common lists used for the standardization processes. The sustainability reporting framework will be mandatory for 50.000 EU companies, which should in turn adjust their internal information systems to disclose the sustainability data with the mandatory level of disaggregation mandated in each case. Such disaggregation lists and metrics are of interest to CEN, as is the relevance of European businesses according to mandatory reporting standards; where the CEN eBCG would provide guidance in such standards.

The meeting took note of the information.

5.6.7   UPU

Document N945 was presented by Mr Houssem Gharbi, UPU. The report highlighted the UPU trade vision, and the role of UPU as an e-business enabler, and activities on:

- Digital ID – UPU S68, *Postal Identity Management Framework*;

- Cybersecurity;

- Blockchain;

- UPU API and standard services to facilitate e-commerce for track and trace, and addressing (JSON / XML);

- UPU's desire to create an e-business ecosystem within other SDO partners to improve access of MSMEs and Women to trade through the postal network, and to develop the UPU contribution in common projects (Single windows, electronic payment, advance rulings, pre-arrival processing, acceptance of copies, (digital trade);

The meeting took note of the report.

UNECE expressed interest in UPU's activities.

ISO/TC 211 has an active liaison with UPU.

See also section 6.2 for coordination on API, and section 7 on Blockchain and Distributed Ledger Technology, and on Identification.

5.6.8   WCO

No report was received.

5.7   Dormant Organization List Candidates

A couple of organizations (GS1, IMO) have been detected from abstained active participation in the MoU/MG since quite a while. Some other candidate organizations (IEEE, W3C) could be researched and evaluated for new participation in the MoU/MG; the four MoU signatory organizations will explore the opportunity and necessity for any of those ones.

5.7.1   IMO

No report was received.

The meeting agreed new ***MoU/MG Action A23/02 [Secretariat issues]:***

> *The MoU/MG requests its Secretariat to re-establish contacts with International Maritime Organization (IMO).*

6   New coordination items with respect to e-business

The items listed below correspond to coordination items which do not have MoU/MG resolutions/actions – they should receive a resolution/action through requests in reports under item 5 or during the plenary meeting, in order to be moved to existing actions and be retained under item 7 on this agenda. If they do not, they shall be candidates for closure. At each plenary meeting the outstanding proposed coordination items are reviewed, those covered elsewhere or not relevant for e-business are groomed out. The template for justifying the continuation of a topic is:

- Rationale for e-business.

- Justification not to remove.

- Action/output.

6.1   Internet-of-Things

The meeting considered the input reports N923 (ITU-T) and N937 (OAGi) addressing IoT, and agreed not to move agenda item 6.1 to section 7. As not enough specific rationale on IoT activities for e-business was seen specific, the meeting agreed to remove agenda item 6.1 on IoT from future meeting agendas.

6.2   API

The meeting considered the input reports N916 (ISO/TC 211), N920 (ISO/TC 8), N923 (ITU-T), N933 (UNECE), N937 (OAGi), N938 (UNECE), and N945 (UPU) addressing API, and observed that the term API is a fairly generic term and a diversity of API concepts and notions exist but is just loosely defined in the e-business context.

UN/CEFACT has published several White Papers on API for various contexts.

It was agreed to keep API on the agenda item 6, and to invite contributions to investigate further the issue of APIs in/for e-business and the need of APIs to interoperate.

6.3 Circular economy

The meeting considered the input reports N919 (ISO/TC 323), N923 (ITU-T), and N930 (UNECE) addressing circular economy.

It was agreed to keep circular economy in the agenda item 6, and it was noted to clarify the notion of circular economy in the context of e-business.

Due to absence of an ISO/TC 323 representative and lack of time to coordinate on circular economy issues, the meeting did not agree a new Action item on circular economy at this meeting. However, the meeting was informed that an EU programme on digital product passport (DPP) deals with all products, but not just sustainable products as the ITU-T SG5 work item L.GDSPP "*Requirements for a global digital sustainable product passport to achieve a circular economy*" may suggest. Further, a forthcoming EU regulation is anticipated on product passport.

6.4 New coordination items for the next MoU/MG meeting

It was agreed to add new agenda items under 6 on privacy coordination, and on SMART standards at the next MoU/MG meeting.

The meeting agreed new ***MoU/MG Resolution R23/03 [privacy-by-design]:***

> *The MoU/MG notes the importance of privacy and "privacy-by-design", and invites relevant groups (such as ISO/IEC JTC 1/SC 27, ISO/IEC JTC 1/SC 32/WG 1, ISO/IEC JTC 1/SC 36, ISO/IEC JTC 1/SC 42, ISO/PC 317, ISO/TC 295, ISO/TC 307, ITU-T SG11, ITU-T SG16, ITU-T SG17, ITU-T SG20, and OASIS) to coordinate on the consistent usage of terminology and towards utilizing harmonized concepts on privacy and "privacy-by-design".*

The meeting agreed new ***MoU/MG Resolution R23/04 [SMART standards]:***

> *The MoU/MG recognizes the potential of SMART standards, and invites relevant groups to report their use cases and requirements on smart standards in the domain of e-business.*

7 Coordination of existing actions

The Chair addressed each coordination item (agenda points 7.1 to 7.19) and the associated resolutions and actions to confirm their continued relevance. The following provides a summary of the output:

- On agenda item 7.1 "Semantic Harmonization", the meeting considered the input reports N913 (MoU/MG), N916 (ISO/TC 211), N920 (ISO/TC 8), N927 (IEC/TC 3/SC 3D), N929 (UNECE), N930 (UNECE), N931 (UNECE), N932 (UNECE), N933 (UNECE), N934(UNECE), N938 (UNECE), and N943 (ISO/TC 37).

  The meeting agreed new ***MoU/MG Resolution A23/03 [Semantic harmonization]:***

  > *The MoU/MG, in pursuing MoU/MG Resolution R07/06 UN/CEFACT Core Components Library, the MoU/MG invites all groups within the following spaces (transport and logistics; finance and payment; agriculture, fisheries and agri-food; travel, tourism and leisure) to submit their global supply chain data requirements related to e-business (including e-commerce) needs to UNECE in order to harmonize them with existing standards.*

The meeting agreed new ***MoU/MG Action A23/13 [Secretariat issues]:***

> *The MoU/MG requests the four signatory organizations to explore the potential of consolidation/updating of MoU/MG Resolutions R07/23, R09/06, R16/04 on healthcare information, and for R07/06 and R14/01 on semantic harmonization, and to bring a proposal the next MoU/MG meeting.*

- On agenda item 7.2 "Healthcare Informatics", the meeting considered the input reports N917 (ISO/TC 215), N922 (ISO/IEC/ JTC 1/SC 42), and N923 (ITU-T). See also new action A23/13 above.

- On agenda item 7.3 "Name and address", the meeting considered the input reports N916 (ISO/TC 211), and N931 (UNECE), and did not take any further actions.

- On agenda item 7.4 "Smartgrid/Energy markets", the meeting did not take any further actions.

- On agenda item 7.5 "Open Source", the meeting considered the input reports N926 (ISO/TC 184/SC 4), and N941 (OASIS). It was agreed to keep this agenda item and to consider its relevance at the next MoU/MG meeting.

- On agenda item 7.6 "Data governance and data quality for e-business", the meeting considered the input reports N915 (ISO/TC 154), N918 (ISO/TC 321), N920 (ISO/TC 8), N922 (ISO/IEC/ JTC 1/SC 42), N926 (ISO/TC 184/SC 4), N932 (UNECE), N937 (OAGi), N938 (UNECE), N942 (UNECE), N943 (ISO/TC 37), and N944 (UNECE), and did not take any further actions.

- On agenda item 7.7 "Big Data for e-business", the meeting considered the input reports N922 (ISO/IEC/ JTC 1/SC 42), and N923 (ITU-T), and did not take any further actions.

- On agenda item 7.8 "Traceability", the meeting considered the input reports N915 (ISO/TC 154), N916 (ISO/TC 211), N918 (ISO/TC 321), N921 (ISO/IEC JTC 1/SC 32/WG 1), N923 (ITU-T), N930 (UNECE), N931 (UNECE), and N932 (UNECE), and did not take any further actions.

- On agenda item 7.9 "eAccessibility and eInclusion", the meeting the input reports N923 (ITU-T), and N943 (ISO/TC 37).

The meeting expressed interest to see ISO/IEC JTC 1/SC 36 "Information technology for learning, education and training" participate in the MoU/MG.

The meeting agreed revised ***MoU/MG Resolution R20/21 [Accessibility]:***

> *The MoU/MG, conscious about web content accessibility increasingly becoming legally obligatory in many countries especially in the public domain, encourages members of the MoU/MG (in line with MoU/MG Resolution 18/01) to consider the aspect of web content accessibility complying with ISO/IEC 40500 (or W3C WCAG 2.0) in the development of structured data (such as codes, symbols, nomenclatures, classifications, etc.), and of ITU-T T.701.11 | ISO/IEC 20071-11 on how to create text alternatives (also known as "alt-text").*

- On agenda item 7.10 "Quantum technologies in the scope of electronic business", the meeting considered the input report N923 (ITU-T).

The meeting agreed new ***MoU/MG Action A23/09 [Quantum technologies in the scope of electronic business]:***

> *With reference to MoU/MG Action A18/01, the MoU/MG invites interested groups to participate in the new ITU-T Joint Coordination Activity on quantum key distribution network (JCA-QKDN) for coordination.*

- On agenda item 7.11 "Smart Manufacturing in the scope of electronic business", the meeting considered the input reports N922 (ISO/IEC/ JTC 1/SC 42), N923 (ITU-T), N925 (ISO CS), N926 (ISO/TC 184/SC4), and N937 (OAGi).

  The meeting expressed interest to see IEC/TC 65 "Industrial-process measurement, control and automation", and IEC/SyC SM "Smart Manufacturing" participate in the MoU/MG.

  > ***IEC to follow up with Industry Automation groups IEC/TC 65 and IEC/SyC Smart Manufacturing to check interest and contribution in the area of e business for the next MoU/MG meeting.***

- On agenda item 7.12 "Artificial Intelligence and Machine Learning", the meeting considered the input reports N917 (ISO/TC 215), N922 (ISO/IEC/ JTC 1/SC 42), N923 (ITU-T), and N932 (UNECE).

  The meeting agreed new ***MoU/MG Resolution R23/05 [Artificial Intelligence and Machine Learning]:***

  > *With reference to MoU/MG Resolution R19/04, the MoU/MG recognizes the opportunity of Artificial Intelligence and Machine Learning for usage in the context of e-business, and invites relevant groups to coordinate their AI/ML activities of mutual interest.*

  The meeting agreed new ***MoU/MG Action A23/10 [Artificial Intelligence and Machine Learning]:***

  > *With reference to MoU/MG Resolution R19/04, the MoU/MG encourages relevant groups to participate in the new ITU-T Joint Coordination Activity on machine learning (JCA-ML) for coordination.*

- On agenda item 7.13 "Signed digital evidence interoperability", the meeting agreed to consider moving this agenda under Section 6 for the next MoU/MG meeting.

- On agenda item 7.14 "Fraud countermeasures", views were expressed that fraud is considered a legal issue, and no further interest for coordination was apparent. ***The meeting agreed to remove this agenda item from future meeting agendas.***

- On agenda item 7.15 "Trust and trustworthiness", the meeting considered the input reports N915 (ISO/TC 154), N922 (ISO/IEC/ JTC 1/SC 42), and N923 (ITU-T)), and did not take any further actions.

- On agenda item 7.16 "Blockchain and Distributed Ledger Technology", the meeting considered the input reports N915 (ISO/TC 154), N921 (ISO/IEC JTC 1/SC 32/WG 1), N923 (ITU-T), N929 (UNECE), N939 (ISO/TC 307), N941 (OASIS), and N945 (UPU).

  ISO/IEC/ JTC 1/SC 32/WG 1 is working on ISO/IEC PRF 15944-21, *Information technology — Business operational view — Part 21: Application of Open-edi business transaction ontology in distributed business transaction repositories*, which addresses DLT.

  The meeting agreed new ***MoU/MG Resolution R23/06 [Blockchain and Distributed Ledger Technology]:***

  > *With reference to MoU/MG Action A20/02, the MoU/MG invites relevant groups to coordinate their e-business activities using DLT.*

- On agenda item 7.17 "Autonomous / assisted driving, Intelligent transportation, e-vehicles", the meeting considered the input reports N920 (ISO/TC 8), N923 (ITU-T), N931 (UNECE), and N932 (UNECE).

The meeting agreed new ***MoU/MG Action A23/05** [Autonomous / assisted driving, Intelligent Transportation]*:

> *The MoU/MG, in pursuing MoU/MG Resolution R19/03, invites ITU-T SG16 to coordinate with the UNECE Sustainable Transport Division and with ISO/IEC JTC 1/SC 42 and ISO/TC 204 on the topic of autonomous / assisted driving in e-business.*

- On agenda item 7.18 "eCatalogues; product data, classification and terminology, code lists", the meeting considered the input reports N916 (ISO/TC 211), N926 (ISO/TC 184/SC 4), N927 (IEC/TC 3/SC 3D), N943 (ISO/TC 37).

  ISO/IEC/ JTC 1/SC 32/WG 1 is working on ISO/IEC FDIS 15944-10, *Information technology — Business operational view — Part 10: IT-enabled coded domains as semantic components in business transactions*.

  ISO/TC 37/SC 2 is revising on ISO DIS 639, *Code for the representation of individual languages and language groups*.

  It was agreed to include "code lists" in the categorization title of the agenda.

- On agenda item 7.19 "Identification", the meeting considered the input reports N916 (ISO/TC 211), N920 (ISO/TC 8), N921 (ISO/IEC JTC 1/SC 32/WG 1), N923 (ITU-T), N939 (ISO/TC 307), and N945 (UPU), and did not take any further actions.

- The meeting considered N917 (ISO/TC 215), N921 (ISO/IEC JTC 1/SC 32/WG 1), N922 (ISO/IEC/ JTC 1/SC 42), N923 (ITU-T), N936 (ISO/PC 317), N939 (ISO/TC 307), and N941 (OASIS) addressing privacy, privacy-by-design as a new coordination item, see section 6.4.

The updated lists of MoU/MG Resolutions and Actions can be found in Annexes B and C, respectively.

8   Secretariat

8.1   Next MoU/MG meeting

The next MoU/MG meeting was agreed to be scheduled on 12-13 December 2023. IEC will be hosting a hybrid meeting, online and at IEC headquarter premises; to be chaired by ISO CS (Ms Laura Mathew), and for the MoU/MG Secretariat to be supported by UNECE (Ms Yan Zhang) for the 2023/12 – 2024/12 timeframe.
Note that the same meeting times are proposed as for the 44th MoU/MG meeting:
Day 1: 10.00 – 14.30 CET, and Day 2 13.00 to 16.00 CET.

Please note the following dates for circulation of documents:

19 September 2023 (12 weeks before the start of the meeting)	Release of first draft agenda for a call for input.
31 October 2023 (Six weeks before the start of the meeting)	Release of updated draft agenda six weeks before the meeting
14 November 2023 (Four weeks before the start of the meeting)	Submission of member contributions that propose actions.
5 December 2023 (Seven days before the start of the meeting)	Submission of member reports and contributions, and reminder to be sent out.
11 December 2023 (1 day before the start of the meeting)	Updated draft agenda.

8.2   Reminder for members for resolutions and action items

The meeting was reminded about MoU/MG Resolution R17/03, which recognizes the need to have timely reports from its participating organizations, available at least one week before the start of the meeting, and with a reminder sent out by the secretariat one month in advance.

8.3   MoU/MG webinars

8.3.1   Webinar on Semantic Interoperability and its role for e-Business

The Chair presented document N913, which proposes a draft concept note for a possible MoU/MG webinar on Semantic Interoperability and its role for e-Business.

The meeting developed a revised concept note in document N946, and recognized the need to conduct a consultation and review among its members and to solicit feedback on document N946 on the content, and on the applicability or scope of such a webinar if in scope of the MoU/MG. Note that the proposed webinar aims to provide clarifications on the (general) meaning of semantic interoperability for e-business, and relationship with SMART standards. Although it is unclear if this topic should be raised at a higher and wider audience than just in the area of e-business coordination. A deadline for comments on N913 for all members of the MoU/MG group was requested by 3 March 2023, to enable further consideration of taking the next steps.

The initial comment noted that the title is misleading and should say "semantics among domains" instead of "semantics between domains".

8.3.2   Other possible MoU/MG webinars

A proposal was made to consider an MoU/MG webinar on Smart Standards in e-business. ISO and IEC proposed to provide a contribution on the ISO/IEC SMART Standards program at the 45th MoU/MG meeting.

8.4   MoU/MG overview slideset

The Chair presented the document N914 that provides an overview about the MoU/MG, highlighting its structure and scope, with the objective to yield better awareness of the MoU/MG to the outside world, and to allow other standardization organizations to consider becoming involved in the MoU/MG.

The meeting agreed not to change the structure of the MoU/MG, but there is a need to clarify what e-business means nowadays.

The meeting agreed to request review and feedback for the MoU/MG members on N914 by 3 March 2023, depending on the feedback received, the slides will be made as a reference document and made available on the MoU/MG webpage.

It was further agreed to add a new agenda item on "the future of the MoU" at the next MoU/MG meeting.

9   Any other business

A hybrid group photo of the MoU/MG participants was taken, see Annex D.

10   New MoU/MG Resolutions and Actions

The MoU/MG unanimously approved seven new Resolutions (R23/01, …, R23/07), revised one MoU/MG Resolution (R20/01), and approved 13 new Actions (A23/01, …, A23/13), as in document N947.

11 Closing of the meeting

The Chair thanked UNECE for hosting the meeting, and thanked all participants for their attendance, contributions, and comments.

The meeting agreed new ***MoU/MG Resolution R23/07** [General]:*

> *The MoU/MG expresses its appreciation to Mr Stephen Dutnall, Chair of the MoU/MG, and to Mr Martin Euchner, MoU/MG Secretary, for the excellent conduct of the 44th MoU/MG meeting.*

The following information is provided to help gauge the time needed if a virtual meeting is repeated.

- Day 1, the timing of the meeting was 10.00 to 14.35 hours CET;
- Day 2, the timing of the meeting was 13.00 to 16.10 hours CET.

The meeting was closed on the second day, 18 January 2023 at 16.10 hours CET.

**Annex A – List of participants,
17-18 January 2023, MoU/MG on e-Business meeting**

Title	Surname	First Name	Entity	Group
Ms	Becha	Hanane	UNECE	UN/CEFACT
Mr	Bishop	Kevin	UNECE	Secretariat
Mr	Boixo	Ignacio	CEN	Chair eBCG
Mr	Bondarenko	Aleksei	UNECE	UN/CEFACT
Mr	Bosker	Erik	UNECE	UN/CEFACT
Mr	Diab	Wael William	ISO/IEC	JTC 1/SC 42 Chair
Mr	Donohoe	Paul	UPU	
Mr	Dong	Shanfeng	ISO	TC 321 Committee manager
Mr	Dubuisson	Olivier	ITU-T	ITU-T representative in MoU/MG
Mr	Dulmage	Rae	ISO	PC 317
Mr	Dutnall	Stephen	IEC	IEC Secretariat
Mr	Euchner	Martin	ITU-T	ITU-T Secretariat
Mr	Galinski	Christian	ISO	TC 37
Mr	Gharbi	Houssem	UPU	Expert SME growth and Trade
Mr	Glickman	Mike	ISO	TC 215 Chair
Mr	Gray	Edmund	UNECE	UN/CEFACT SCMP
Mr	Grossi	Francesco	UNECE	UN/CEFACT
Dr	Knoppers	Jake	ISO/IEC	JTC 1/SC 32/WG1
Ms	Khusnutdinova	Kamola	UNECE	UN/CEFACT
Mr	Laskowski	Marek	UNECE	UN/CEFACT
Ms	Mathew	Laura	ISO	ISO Central Secretariat
Mr	Mehta	Sachin	UNECE	UN/CEFACT T+T
Mr	Parslow	Peter	ISO	TC 211 Chair
Ms	Patel	Anita	UNECE	UN/CEFACT A+A
Ms	Pisai	Marie-Therese	UNECE	UN/CEFACT
Ms	Probert	Sue	UNECE	UN/CEFACT Chair
Mr	Rathakrishnan	Ananth	UNECE	UN/CEFACT CBM
Mr	Rødseth	Ørnulf Jan	ISO	TC 8
Mr	Rossi	Gernot	IEC	TC 3/SC 3D Secretary
Mr	Shi	Yu	ISO	TC 154 Chair
Mr	Swope	Kenneth	ISO	TC 184/SC 4 Chair
Mr	Sorrentino	Fabio	UNECE	UN/CEFACT F+P
Mr	Suzuki	Akio	UNECE	UN/CEFACT T+T
Mr	Van Burg	Harm Jan	OASIS	
Ms	Viohl	Birgit	UNECE	UN/CEFACT ITP PDA
Mr	Vivekanantham	Aruna	UNECE	UN/CEFACT
Mr	Wilson	Jim	OAGi	OAGi President & CEO
Mr	Zhang	Jianfang	ISO	TC 154
Ms	Zhang	Yan	UNECE	Secretariat

IEC participants = 2

ISO participants = 10

ISO/IEC JTC 1 participants = 2

ITU participants = 2

UNECE participants = 18

Partner organizations = CEN (1), OAGi (1), OASIS (1), UPU (2)

Total = 39 participants.

Annex B – List of standing MoU/MG Resolutions

Resolution	Area	Resolution text	Status
R07/06	Semantic harmonization	MoU/MG encourages member SDOs to submit their core components to the UN/CEFACT library maintenance point of contact, and participate in relevant UN/CEFACT activities.	In force
R07/23	Healthcare Informatics	MoU/MG welcomes the coordinated approach on healthcare being taken by ISO/TC 215, CEN TC 251, GS1, HL7, IHTSDO, IHE, DICOM and OASIS, and encourages continued collaboration.	In force
R09/06	Healthcare Informatics	The MoU/MG invites ITU-T SG16 to coordinate its work on eHealth with ISO/TC 215 and its related groups (in progress).	In force
R10/11	eCatalogues; product data, classification and terminology, code lists	MoU/MG recommends that standards groups developing code lists should consider provision within the standards to prevent reuse of codes, in order to avoid invalidating earlier usages.	In force
R11/07	Identification	The MoU/MG welcomes the contact between ISO/TC 37 for language codes, the ISO/TC 46 Maintenance Agency for country codes and the ISO/TC 68 Maintenance Agency for currency codes in order to maintain consistency.	In force
R12/03	Identification	MoU/MG recognizes that no single identification scheme for digital objects and other items will satisfy all business requirements, and therefore invites bodies responsible for identification schemes to ensure that their schemes and registration arrangements will accommodate interoperation with other schemes.	In force
R12/09	Name and address, Records management	MoU/MG encourages those members who have an interest in using language and script codes (ISO 639, ISO 15924) for e-business purposes to build a liaison with ISO/TC 37 and ISO/TC 46, to ensure that their requirements are addressed.	In force
R14/01	Semantic harmonization	The MoU/MG noted the publication of ISO 15000-5, Electronic Business Extensible Markup Language (ebXML) - Part 5: Core Components Specification (CCS), and invites any organization that has a core component-based specification to review their specifications against it for conformance and to define the set of production rules required to implement ISO 15000-5 that result in their published content (libraries/messages).	In force
R14/09	Smart Grid	The MoU/MG recognises the broad scope of requirements identified by IEC/TC 57 for the Smart Grid, and draws attention to the existing available standards and user investments which can contribute to addressing those requirements.	In force

Resolution	Area	Resolution text	Status
R15/02	Updates from organizations	All MoU/MG organizations are requested to distribute brief descriptions of all their relevant, proposed, preliminary and new work items via the MoU/MG mailing list. MoU/MG recommends that all relevant approved new work items from the MoU/MG members shall be disseminated to the MoU/MG mailing list for information and possible action at the earliest stage.	In force
R16/03	Open Source	The MoU/MG members note the growth of opportunities to apply open-source techniques to the development, implementation and use of standards, and encourage sharing best practices on open source in the scope of e-business across the member organizations.	In force
R16/04	Healthcare Informatics	The MoU/MG notes the work of ISO/TC 292 Security and resilience, UNECE Working Party on regulatory cooperation and standardization policies (WP.6) and UNISDR on disaster risk reduction, ISO/TC 215 on Patient tracking, ITU-T SG17 on Security and OASIS EDXL Tracking of Emergency Patients, and invites these groups to explore collaboration on patient tracking and other areas of preparedness.	In force
R16/13	Data governance	MoU/MG notes the work of ISO/IEC JTC 1/SC 40 relating to data governance, and requests a presentation on the scope of the work to a future meeting in order to understand its relationship to the existing activities of the MoU/MG participants.	In force
R16/14	Semantic harmonization	MoU/MG was made aware of concerns raised by UN/CEFACT regarding potential duplication and/or overlap of work with ISO/TC 295 on audit data, and recommends UN/CEFACT to submit their concerns in writing to the Committee Secretariat, in copy to the MoU/MG to allow tracking of progress.	In force
R16/15	Collaboration and coordination	MoU/MG recognizes Recommendations ITU-T A.5 "Generic procedures for including references to documents of other organizations in ITU-T Recommendations", A.25 "Generic procedures for incorporating text between ITU-T and other organizations", and A-series Supplement 5 "Guidelines for collaboration and exchange of information with other organizations", and invites the participating members of the MoU/MG to utilize these documents in developing joint documents, and to provide feedback to ITU-T on their use.	In force
R16/16	Blockchain and Distributed Ledger Technology	MoU/MG notes the formation of ISO/TC 307 "Blockchain and electronic distributed ledger technologies" and invites MoU/MG members to liaise with this new group as it develops its work programme.	In force

Resolution	Area	Resolution text	Status
R17/03	Secretariat issues	The MoU/MG recognizes the need to have timely reports from its participating organizations, available at least one week before the start of the meeting, and with a reminder sent out by the secretariat one month in advance.	In force
R17/08	Traceability	The MoU/MG notes a number of initiatives on traceability in various industries such as aerospace, diamonds, agriculture, garments, medical products, and counterfeiting, and invites MoU/MG members to provide more information on this topic of interest.	In force
R17/11	WCO	MoU/MG encourages WCO to take advantage of its participation in the MoU/MG to seek inputs from existing e-commerce standards activities.	In force
R18/01	eAccessibility and eInclusion	The MoU/MG, recognizing the importance of accessibility and inclusion of persons with disabilities resolves to take up eAccessibility and eInclusion for continued coordination and endorses Recommendation 2016 (reference MoU/MG N812) on this topic.	In force
R18/04	Semantic harmonization	MoU/MG encourages its members to reference in their standards the revised ISO 8601 series of standards on date and time.	In force
R19/01	Semantic harmonization, Trust and trustworthiness	The MoU/MG encourages standards organizations to compare their notions of trust and trustworthiness with an aim to providing a consistent use of these terms. Experts are encouraged to work together to understand the specific connotation of trust and trustworthiness in different domains.	In force
R19/02	Digital Identity	The MoU/MG welcomes the involvement of UN/CEFACT eGovernment Domain in ITU-T on Digital Identity Management in order to consider this work in their Digital Identity project.	In force
R19/03	Autonomous / assisted driving, Intelligent Transportation	The MoU/MG welcomes the involvement of the ITU-T Study Group 16 in the work of the UNECE Transportation Division and the work of ISO/IEC JTC 1/SC 42 and the work of ISO/TC 204 on the topic of autonomous / assisted driving.	In force
R19/04	Artificial Intelligence	The MoU/MG encourages the member organizations to look into the potential of artificial intelligence and machine learning in the area of e-business and report in future MoU/MG meetings on this topic.	In force Groups are asked to submit use cases

Resolution	Area	Resolution text	Status
R20/01	Accessibility	The MoU/MG, conscious about web content accessibility increasingly becoming legally obligatory in many countries especially in the public domain, encourages members of the MoU/MG (in line with MoU/MG Resolution R18/01) to consider the aspect of web content accessibility complying with ISO/IEC 40500 (or W3C WCAG 2.0) in the development of structured data (such as codes, symbols, nomenclatures, classifications, etc.), and of ITU-T T.701.11	ISO/IEC 20071-11 on how to create text alternatives (also known as "alt-text").	In force, revised
R21/01	API	The MoU/MG recognizes the importance of the ongoing work on API and invites member organizations to report on their ongoing work in future MoU/MG meetings and encourages groups to create liaisons to maximize their efforts.	In force
R21/02	Circular economy	The MoU/MG encourages member organizations to look into the potential of circular economy in the area of e-business and report in future MoU/MG meetings on this topic.	In force
R23/01	General	The MoU/MG, being very concerned to have heard about Mr Patrice Hertzog's passing away, expresses its deep condolences to ISO/TC 68, to AFNOR, and to his family, in remembering his valuable contributions to the MoU/MG and his coordination efforts.	In force, new
R23/02	Audit data	With reference to MoU/MG Resolution R16/06, the MoU/MG encourages UNECE and ISO/TC 295 to continue coordinating and to resolve the potential duplication and/or overlap of work on audit data.	In force, new
R23/03	privacy-by-design	The MoU/MG notes the importance of privacy and "privacy-by-design", and invites relevant groups (such as ISO/IEC JTC 1/SC 27, ISO/IEC JTC 1/SC 32/WG 1, ISO/IEC JTC 1/SC 36, ISO/IEC JTC 1/SC 42, ISO/PC 317, ISO/TC 295, ISO/TC 307, ITU-T SG11, ITU-T SG16, ITU-T SG17, ITU-T SG20, and OASIS) to coordinate on the consistent usage of terminology and towards utilizing harmonized concepts on privacy and "privacy-by-design".	In force, new
R23/04	SMART standards	The MoU/MG recognizes the potential of SMART standards, and invites relevant groups to report their use cases and requirements on smart standards in the domain of e-business.	In force, new
R23/05	Artificial Intelligence and Machine Learning	With reference to MoU/MG Resolution R19/04, the MoU/MG recognizes the opportunity of Artificial Intelligence and Machine Learning for usage in the context of e-business, and invites relevant groups to coordinate their AI/ML activities of mutual interest.	In force, new

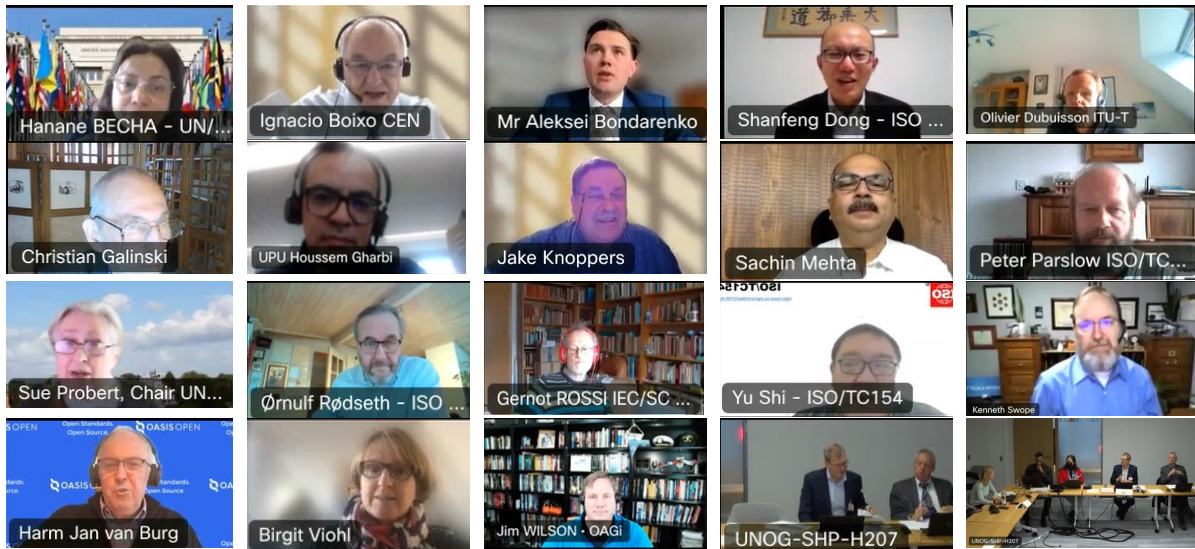| Resolution	Area	Resolution text	Status
R23/06	Blockchain and Distributed Ledger Technology	With reference to MoU/MG Action A20/02, the MoU/MG invites relevant groups to coordinate their e-business activities using DLT.	In force, new
R23/07	General	The MoU/MG expresses its appreciation to Mr Stephen Dutnall, Chair of the MoU/MG, and to Mr Martin Euchner, MoU/MG Secretary, for the excellent conduct of the 44th MoU/MG meeting.	In force, new

Annex C – List of MoU/MG Actions

Action	Area	Action text	Status
A06/41	Secretariat issues	The MoU/MG secretariat to prepare a calendar of the main meetings of MoU/MG member organizations, to be posted on the MoU website. The MoU/MG members are therefore requested to send this information as early as possible to the MoU/MG secretariat.	Open
A07/14	Secretariat issues	Member organizations were encouraged to update their lists of participants, link and contacts point under the MoU/MG site.	Open
A09/30	Secretariat	The MoU/MG Secretariats are requested to send to ITU Secretariat necessary updates needed on the website to ensure content is topical - needs new presentation, updated lists of participating organisations and individuals.	Open
A11/18	Secretariat issues	Each individual organization's secretariat to send out reminders to their respective mailing list on action items.	Open
A16/05	Big Data for e-business	The MoU/MG invites its member organizations to provide information on their activities in the context of Big Data for e-business.	Open
A17/06	WCO	The MoU/MG invites WCO DMPT to review and consider the reuse of the UN/CEFACT eCMR (road consignment document) deliverable.	Open
A18/01	Quantum technologies	The MoU/MG invites its members to provide inputs to the next MoU/MG meeting on the subject of quantum technologies in the scope of electronic business.	Open
A18/02	Smart Manufacturing	The MoU/MG invites its members to provide inputs to the next MoU/MG meeting on the subject of smart manufacturing in the scope of electronic business.	Open
A19/01	Signed digital evidence	The MoU/MG invited organizations to provide inputs to the next MoU/MG meeting on the subject of signed digital evidence.	Open
A19/02	Healthcare informatics	The MoU/MG invites ISO/TC 215 to report on the coordinated approach on healthcare and the current liaisons in place for this. (see R07/23 and R09/06).	Open
A20/02	New Coordination / Blockchain and distributed ledger technologies	The MoU/MG found considerable interest in the use of Blockchain and distributed ledger technologies (DLT) with an impact on electronic business, and invites its members to report to the MoU/MG their approaches and requirements on interoperability of DLT.	Open
A21/01	Internet of Things	Noting the limited understanding of how IoT relates to e-business, the MoU/MG invites groups that are working with IoT to report on this topic, with a view to considering a future webinar on IoT and e-business.	Open
A21/02	Archiving	The MoU/MG invites ISO/TC 46 to report on their work on archiving (referring to the deprecated agenda item 6.1, Archiving for legal purposes).	Open

Action	Area	Action text	Status
A23/01	Secretariat issues	The MoU/MG requests the four signatory organizations to develop a reporting template and to offer it for usage to the MoU/MG member organizations for unified reporting to subsequent MoU/MG meetings.	Open, new
A23/02	Secretariat issues	The MoU/MG requests its Secretariat to re-establish contacts with International Maritime Organization (IMO).	Open, new
A23/03	Semantic harmonization	The MoU/MG, in pursuing MoU/MG Resolution R07/06 UN/CEFACT Core Components Library, the MoU/MG invites all groups within the following spaces (transport and logistics; finance and payment; agriculture, fisheries and agri-food; travel, tourism and leisure) to submit their global supply chain data requirements related to e-business (including e-commerce) needs to UNECE in order to harmonize them with existing standards.	Open, new
A23/04	Electronic invoicing	The MoU/MG invites all groups with activities on Electronic Invoicing to join its relevant work with UN/CEFACT Supply Chain Domain and to reuse its publicly available standards on Cross Industry Invoice (see link).	Open, new
A23/05	Autonomous / assisted driving, Intelligent Transportation	The MoU/MG, in pursuing MoU/MG Resolution R19/03, invites ITU-T SG16 to coordinate with the UNECE Sustainable Transport Division and with ISO/IEC JTC 1/SC 42 and ISO/TC 204 on the topic of autonomous / assisted driving in e-business.	Open, new
A23/06	PKI	The MoU/MG invites ISO/TC 8 and ITU-T SG17 to coordinate their activities on public-key infrastructure (PKI) in e-business.	Open, new
A23/07	Geospatial coordination	The MoU/MG requests the ITU-T Secretariat to provide contact information of ITU-T SG11 and ITU-T SG20 to ISO/TC 211, and invites ISO/TC 211 to inform ITU-T SG11 and SG20 on its progress of activities with the Open Geospatial Consortium (OGC).	Open, new
A23/08	Semantic harmonization	The MoU/MG invites ISO/TC 211 and UNECE to discuss possible future alignment with the Core Component Library (CCL).	Open, new
A23/09	Quantum technologies in the scope of electronic business	With reference to MoU/MG Action A18/01, the MoU/MG invites interested groups to participate in the new ITU-T Joint Coordination Activity on quantum key distribution network (JCA-QKDN) for coordination.	Open, new
A23/10	Artificial Intelligence and Machine Learning	With reference to MoU/MG Resolution R19/04, the MoU/MG encourages relevant groups to participate in the new ITU-T Joint Coordination Activity on machine learning (JCA-ML) for coordination.	Open, new
A23/11	metaverse	The MoU/MG encourages relevant groups to participate in the new ITU-T Focus Group on metaverse (FG-MV), and in the IEC/SEG 15 on Metaverse to explore the notion of metaverse and its impacts on e-business.	Open, new

Action	Area	Action text	Status
A23/12	Digital COVID-19 certificate	The MoU/MG invites interested groups to participate in the new ITU-T Joint Coordination Activity on digital COVID-19 certificate (ITU-T JCA-DCC) for coordination.	Open, new
A23/13	Secretariat issues	The MoU/MG requests the four signatory organizations to explore the potential of consolidation/updating of MoU/MG Resolutions R07/23, R09/06, R16/04 on healthcare information, and for R07/06 and R14/01 on semantic harmonization, and to bring a proposal the next MoU/MG meeting.	Open, new

Annex D – Group photo of some of the MoU/MG participants

//Yan: please add full group photo here…

————