

APRIL 2024
SNOMED INTERNATIONAL BUSINESS MEETINGS

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International

COMMUNITY OF PRACTICE UPDATES

MONDAY APRIL 15, 2024
LONDON, UNITED KINGDOM



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April 2024 Community Updates

Guest Update: ISO TC215

Christian Hay

GLOBAL REPORT

Liara Tutina

PRODUCT & SERVICES

Rory Davidson

CONTENT

Dr. Jim Case

COLLABORATIONS

Jane Millar, Suzy Roy

VENDOR ENGAGEMENT

Nick Egarhos

PROJECT UPDATES: LOINC, FHIR

Peter G. Williams

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ISO/TC 215

Christian Hay

Convenor WG 6 - Pharmacy & Medicines Business

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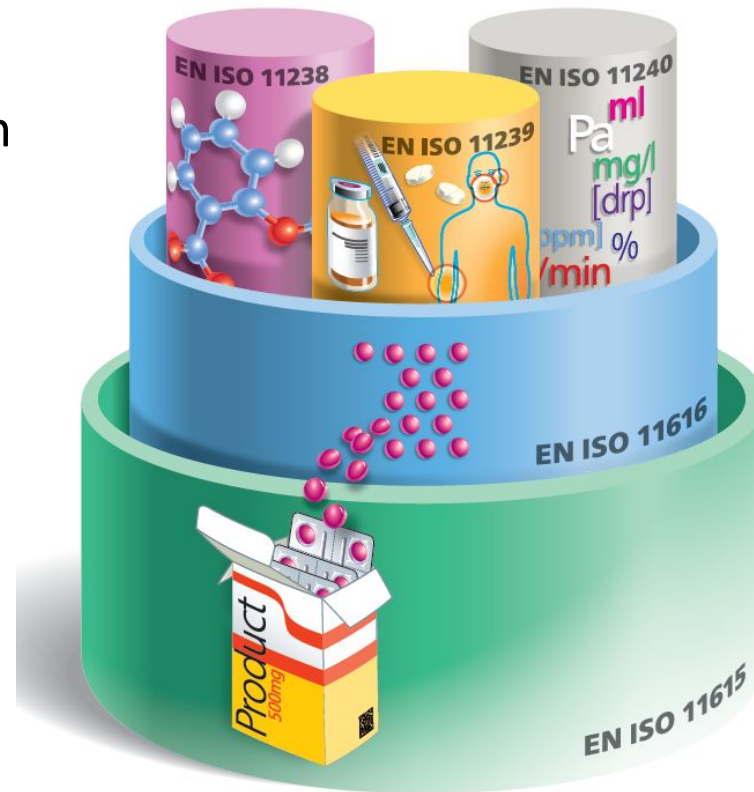
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Happy to open a new exchange era

- ISO TC 215 / WG 6 core business is based on **IDMP** “Identification of Medicinal Product”

Regulatory affairs

- Marketing authorisation
- Regulatory updates
- Individual case safety report (ICSR)
- Public health



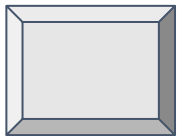
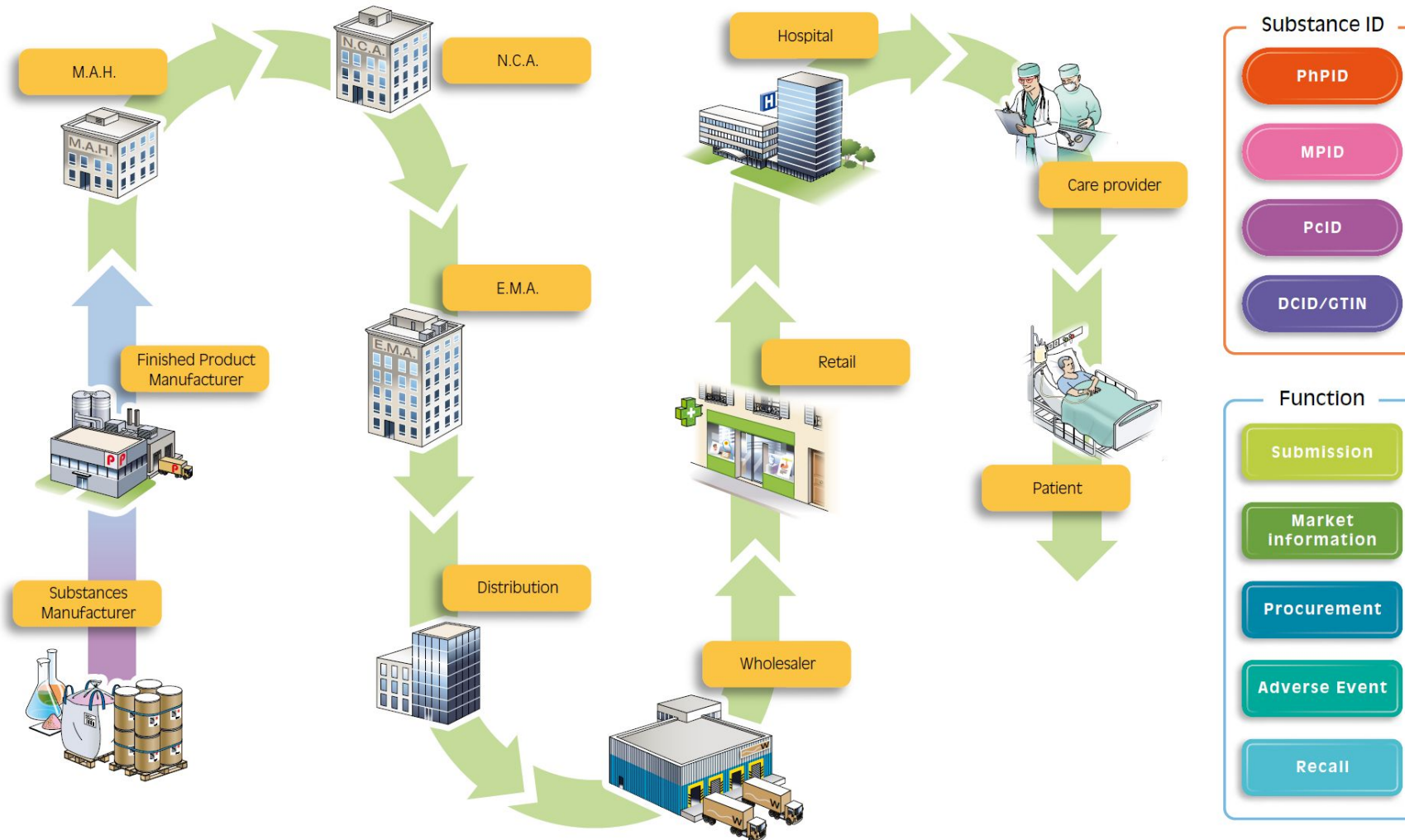
Overarching

Clinical particular, Supply Chain, falsification, immunisation, shortages

Clinical domain

- Medicinal Product Dictionaries
- Decision support
- Prescription
- Dispensation

IDMP and the main identifications and functions



Why visit us here during this week ?

- ISO TC 215 WG 6 groups over 100 experts from 30+ countries, from clinic, pharmacy, service providers (e.g. medicinal product dictionaries), pharma industry, regulators, public health, etc.
- ISO TC 215 WG 6 develops and maintains standards at the conceptual level. Several “core” standards undergo a revision process, which starts 2024.
- There is a close relationship between WG 6 standards and Clinical Terminologies: substances, pharmaceutical dose forms, strengths, prescription (clinical particular, CDSS), adverse events/case safety report...
- ISO TC 215 WG 6 experiences a progressive generation change. Newer experts benefit of experience sharing and education opportunities
- Standards don't evolve in silos anymore: collaborations have been established bilaterally (e.g. GS1 / SNOMED Int.) and multilaterally (e.g. Joint Initiative Council). Collaborations enable leveraging and integrating expertise

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GLOBAL REPORT

Liara Tutina

CUSTOMER RELATIONS EXECUTIVE, ASIA & PACIFIC

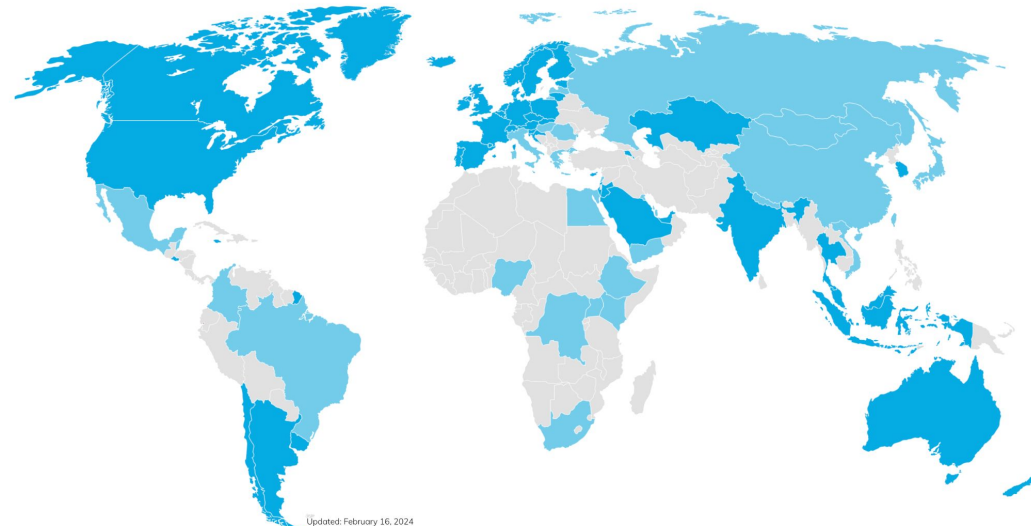


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Global Report

- **EUROPE, MIDDLE EAST & AFRICA**

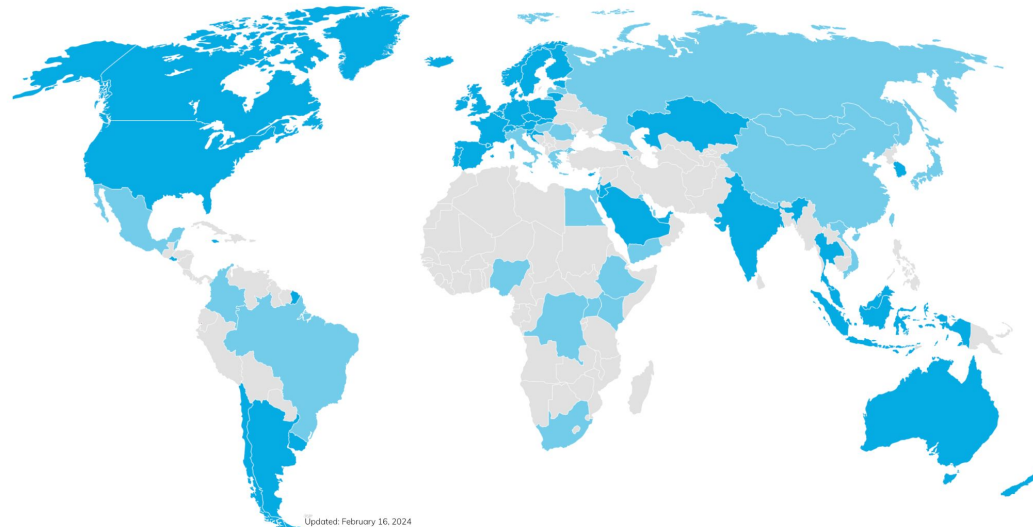
- Working on the inclusion of SNOMED CT in the EU Master Value Catalogue to support MyHealth@EU and implementation of EU Standards across all EU states
- EU Conference presence - Vitalis 2024, HiMSS Europe 2024
- Working directly with Italy on the implementation of the national SNOMED CT pilot (Cancer Synoptic Reporting)
- Presence at Arab Health 2024
- Completing Membership process with Qatar
- Working with Nigeria to create a best-fit licensing model for their hospitals



Global Report

- **AMERICAS**

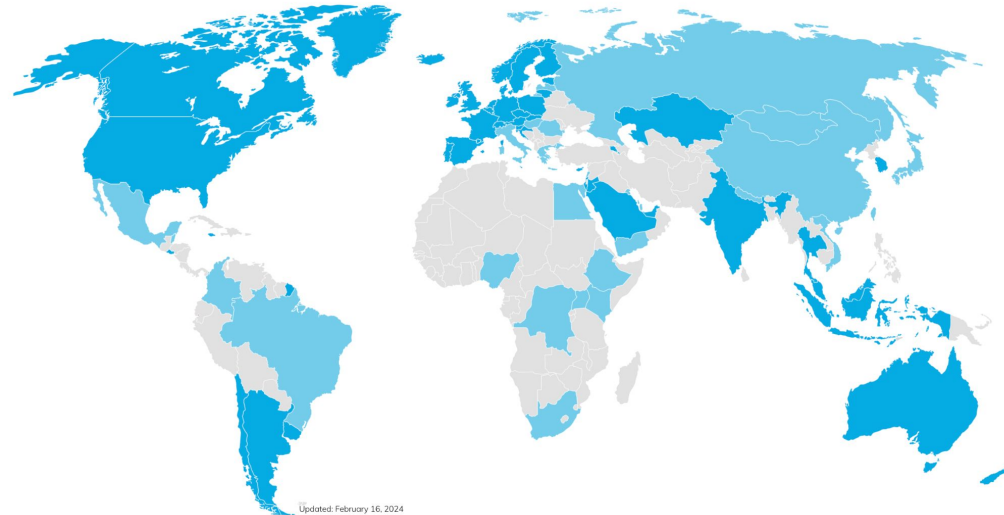
- Submitted a response to the US National Committee on Vital Health Statistics on the “NCVHS ICD-11 Workgroup on Timely and Strategic Action to Inform ICD-11 Policy Phase I Findings Report”
- Continuing to work with Colombia Ministry of Health on Membership
- Presence at HIMSS 2024 North America
- Continuing to work with Brazil on IPS implementation and content support
- Reviewed and commented on USCDI draft version 5



Global Report

- **ASIA AND PACIFIC**

- SCT webinar and discussions held with MoH of Brunei to support national adoption of SCT
- APAC stakeholder engagement - 2024 Australian eHealth Research Centre Colloquium, Philippines Digital Health Workshop
- Membership discussions underway with the Republic of Philippines
- Working on establishing SCT education delivery capability in China



REFRESHMENT BREAK

10:30AM – 11:00AM

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PRODUCTS & SERVICES

Rory Davidson

CHIEF DIGITAL INFORMATION OFFICER

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P&S - Technology & Content in 2024

- Themes across this year:
 - Continued collaborative authoring
 - Growing Community Content extensions available, including LOINC, NUVA and more
 - Annotations
 - Growing list of reports helping to pre-empt impacts on NRCs during editing
 - Continuing automation
 - Leveraging AI technologies (internally & for the product)
 - Preparation for the 2025+ SNOMED International strategy

Tooling Update

- Managing the infrastructure
 - Upgrading CVE monitoring and fixing
 - Focussing on performance
 - Better/easier administration
 - Upgrading software versions for Elasticsearch, Java, MySQL, etc
 - Leveraging AWS autoscaling
 - Testing automation
- Managed Service support & growth
 - Frequent releases
 - Complex extensions
 - Full service review taken place during 2024



Entity Linking Challenge



Entity Linking Challenge

- Successfully completed on 5th March, 2024, with **553** joined, **53** submitted, with **374** submissions in total
 - <https://www.drivendata.org/competitions/258/competition-snomed-ct/leaderboard/>
 - Mix of participant types, mostly researchers or ‘professional’ competitors
- **Winners:** (see blog post, *URL to be provided when published*)
 - **First place:** Guy Amit, Yonatan Bilu, Irena Girshovitz and Chen Yanover (KI Institute, Israel)
 - **Second place:** Gleb Sokolov, Mikhail Kulyabin and Aleksandr Galaida (Erlangen, Germany and Yerevan, Armenia)
 - **Third place:** Vincenzo Della Mea, Mihai Horia Popescu and Kevin Roitero (Medical Informatics, Telemedicine & eHealth Lab, Italy)

Entity Linking Challenge - summary

- Despite the volume of unstructured clinical notes stored by healthcare providers worldwide, a primary obstacle to developing better entity linking models is **the paucity of good training data**.
- However, in preparing this challenge, **270 MIMIC-IV discharge notes** have been annotated, by hand, resulting in more than **70,000 SNOMED CT annotations**. This dataset will now be a prominent resource for researchers in the field.
- The top three entries each took very different approaches: one focused on traditional NLP techniques, one on “decoder-only” LLMs and one on “encoder-only” LLMs. The diversity of successful approaches raises the exciting possibility that combining these approaches will result in even better models.
- All the results are published as open-source, including the winning solutions.
- Watch this space for next steps!

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CONTENT

Dr. Jim Case

CHIEF TERMINOLOGIST

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Content maintenance

Enhancement and additions based on CRS:

- Q4 2023 1975 submissions
- Q1 2024 1685 submissions
- SLA target met; 96% completion



Project requirements

- Drug Content Analysis Project (DCAP)
 - member driven, review of content in National extensions; anti-diabetic, anti-infective, anti-convulsive review and promotion complete.
- Microorganism
 - 300 + concepts remaining
- Anatomy
 - cardiovascular and nervous system enhancements
- Orphanet
 - ongoing maintenance
- MedDRA
 - ongoing maintenance annual release
- ILAE
 - ongoing review
- Neoplasia morphology
 - ongoing updates to neoplastic morphologies to align with the WHO Blue Books 5th Edition
- Refset Maintenance activities
 - EDQM, ICNP, IHE, GP/FP, GMDN, NCPT

Mapping activities

ICD-10 Map - 1640 concepts were added to the map in Q1 2024.

ICD-O Content - ICD-O-3.1 map updated only for maintenance purposes. New morphologies mapped to ICD-O-3.1, or 'no target' if a suitable morphology code is not available in ICD-O-3.1

ICD-11 Map - Refined a set of auto-generated maps after human review ie. "gold standard"; intention to improve existing auto generated maps and develop mapping rules and identify patterns to be incorporated into the auto mapping process for ICD-11 MMS.



Quality Initiative

Total # Active concepts	366927
Out of scope (no model, metadata)	138561
In scope (template)	228366
Conform to template	105767
% in scope that conform to template	46.31

Areas under review

Quality Initiative

- Plastic repair/reconstruction
- Repair of recurrence
- Surgical approach
- Aspiration
- Laser
- Radiotherapy
- Anesthesia and Sedation
- Bypass/grafting
- Endoscopy
- Insertion procedures
- Incision and drainage
- Arthrodesis and Repair of joint

Modeling changes in *PROCEDURES*

- Radiographic imaging
- Destruction using electrical energy
- Prosthetic arthroplasty of joint
- Insertion procedure
- Exteriorization
- improved hierarchical subsumption by:
 - Applying consistent FSN/PT pattern
 - Aligning “method value” with FSN
 - Inactivation of duplicates
 - Modeling of action vs result of action



Modeling changes in *DISORDERS*

Fetal, Neonatal, Perinatal jaundice

- improved hierarchical subsumption by:
 - Applying consistent FSN/PT pattern
 - Aligning “method value” with FSN
 - Inactivation of duplicates
 - Modeling action vs result of action



Pending Bulk Inactivations

Race and Ethnic group subtypes

- No universal definition
- Will retain 7 high-level race concepts
- Top-level groupers retained for member use

with/without complication concepts

- Classification derived groupers
- Little clinical value as type of complication not stated
- Mostly primitive content with no stated subtypes



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COLLABORATIONS

Jane Millar & Suzy Roy

COLLABORATIONS TEAM



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SNOMED CT: Terminology Integrator

- **Enhance consistency** in meaningful data capture and information exchange
- **Improve functionality** and enable interoperability
- **Drive adoption and consumption** of SNOMED CT
- **Evolve SNOMED CT** via content maps and alignments with new domains
- Leads to **new products and services**
- **Fosters emerging technologies** via collaborations to deliver value for stakeholders

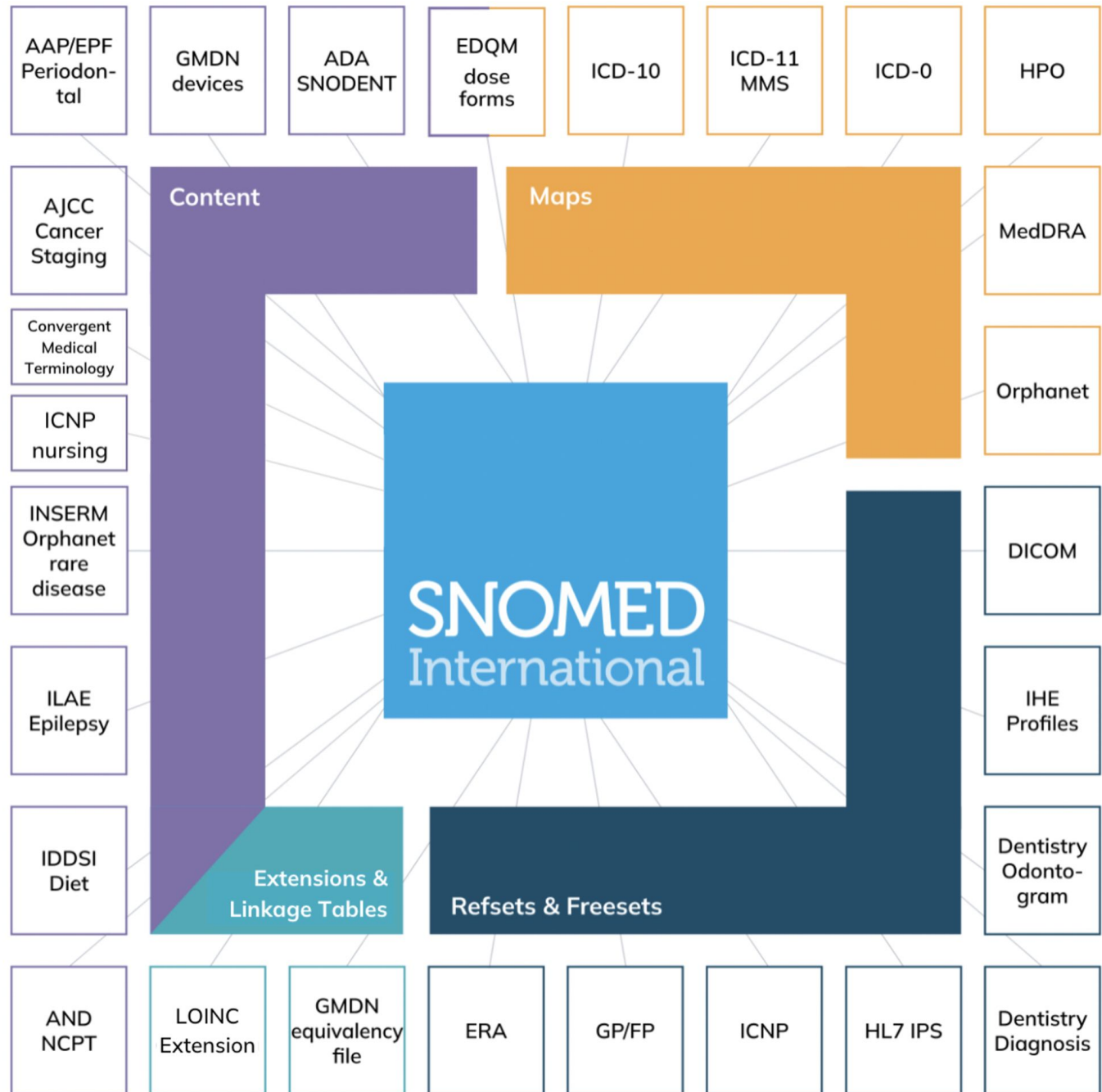
SNOMED CT will continue to be a hub that supports, facilitates and integrates terminology standards and classifications to help enhance and streamline the health and care ecosystem

Product and Services Goals

- 01 SNOMED CT Evolution
- 02 Terminology Integrator
- 03 SNOMED CT Value Proposition



SNOMED International Collaborations



The Collaboration Framework

- A phased approach for **formalizing partnerships**
- **Ensures alignment** with Members, stakeholders, and organizational initiatives
- **The Annual evaluation** of the portfolio is completed to ensure projects, deliverables, and the collaboration relationship is in accordance with the agreement and still meets Member requirements

New and & Renewed Agreements in 2023

NEW Agreements



RENEWED Agreements



Collaboration Updates

- **IPS - International Patient Summary**
 - IPS xSDO Coordination Group
 - Ongoing maintenance and delivery of SNOMED CT resources for IPS
 - IPS Free Set
 - IPS Terminology
- **HL7 International**
 - Continued collaboration for IPS maintenance (alignment and updates) and implementation support
 - Ongoing engagement with communities for SNOMED on FHIR
 - Participation and support for use of SNOMED CT via SNOWSTORM and other terminology servers during HL7 connectathons

Collaboration Updates

- **DICOM - Digital Imaging and Communications in Medicine**
 - Agreement permits the use/incorporation of SNOMED CT into the DICOM Standards
 - Creation of a SNOMED DICOM free set
 - Current work with the Dentistry CRG for the inclusion of a Dentistry DICOM standard
- **GS1 International**
 - Successful completion of collaboration agreement deliverables
 - Member-based request for principles for linking SNOMED CT and GTINs for medicinal products at a national level
 - Decision to close down the collaboration based on lack of Member requirements
 - Both organizations continue to meet and discuss and work well together at the Joint Initiatives Council (JIC)

Collaboration updates and news

- **INSERM/Orphanet**

- Working towards a renewed agreement
- Maintaining alignment between SNOMED CT and Orphanet for Rare Diseases and producing a map annually
- Supporting the Genomics strategy and Member requirements

- **UICC - Union for International Cancer Control**

- New Agreement being finalised
- Used globally as alternative to AJCC for tumour staging
- TNM values to be added to SNOMED CT, distinct from AJCC values but using the same method of representation
- Based on 8th edition, but will then incorporate 9th edition when it is published

Collaboration updates and news

- **NUVA - Unified Nomenclature of Vaccines**
 - Agreement has just been signed with owners, Syadem
 - Expresses vaccine content to enable a comprehensive vaccination history
 - To be included as a Community Content extension using SNOMED CT format
 - Intended coding system for European vaccination card (2026)
- **NPU - Nomenclature for Properties and Units**
 - Agreement in the process of being signed
 - Inclusion as a Community Content extension using SNOMED CT format
 - In collaboration with NPU Steering Committee and owners IFCC and IUPAC

Collaboration updates and news

- **Nursing Classifications**

- Nursing Interventions Classification (NIC), Nursing Outcomes Classification (NOC) and North American Nursing Diagnoses (NANDA-I)
- Nursing Clinical Reference Group, Members and the 3 nursing bodies all keen to have a link with SNOMED CT
- Gathering requirements, both the use cases and the specific work ie content, mapping
- Exploring opportunities for doing any of the work collaboratively, building on existing work
- ICNP refset - release after business meeting

- **Nutrition Care Process Terminology (NCPT) - Academy of Nutrition and Dietetics**

- NCPT content now included in SNOMED CT
- NCPT refset being released April 2024 (part of content)
- NCPT refset, full version, April 2025
- NCPT clinical implementation guide being worked on

Collaboration Glossary

Who we are interfacing with in 2024

- **AAP/EFPP** - American Association of Periodontology & European Federation of Periodontology
- **ACS (AJCC)** - American College of Surgeons (American Joint Committee on Cancer)
- **ADA** - American Dental Association
- **AMA** - American Medical Association
- **AND (NCPT)** - Academy of Nutrition and Dietetics
- **CEN** - European Committee for Standardization
- **DICOM** - Digital Imaging and Communications in Medicine Standards Committee
- **EDQM** - European Directorate for the Quality of Medicines & HealthCare
- **ERA** - European Renal Association
- **GA4GH** - Global Alliance for Genomics and Health
- **GDHP** - Global Digital Health Partnership
- **GP/FP** - General Practitioner/Family Practitioner
- **GMDNA** - Global Medical Device Nomenclature Agency
- **GS1** - GS1
- **HL7 International** - Health Level 7 International
- **HPO** - Human Phenotype Ontology
- **ICCBBA** - International Council for Commonality in Blood Banking Automation
- **ICCR** - International Collaboration on Cancer Reporting
- **ICH (MedDRA)** - International Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use
- **ICN (ICNP)** - International Council of Nurses (International Classification for Nursing Practice)
- **IDDSI** - International Dysphagia Diet Standardisation Initiative
- **IHE** - Integrating the Healthcare Enterprise
- **ILAE** - International League Against Epilepsy
- **INSERM** - Institut national de la santé et de la recherche médicales
- **InterRAI** - International Resident Assessment Instrument
- **IPS** - International Patient Summary
- **ISO** - International Organization for Standardization
- **JIC** - Joint Initiatives Council
- **KP** - Kaiser Permanente
- **NANDA** - NANDA-I
- **NIC/NOC** - Nursing Interventions Classification and Nursing Outcomes Classification
- **NPU** - Nomenclature for Properties and Units
- **NUVA/Syadem** - Unified Nomenclature of Vaccines
- **OHDSI** - Observational Health Data Sciences and Informatics
- **OMIM** - Online Mendelian Inheritance in Man
- **OpenEHR** -
- **PAHO** - Pan American Health Organization
- **UICC** - Union for International Cancer Control
- **UNICOM (project)**
- **VCI (MITRE)** - Vaccination Credential Initiative
- **WHO** - World Health Organization
- **WONCA** - World Organization of Family Doctors

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VENDOR ENGAGEMENT

Nick Egarhos

Global Vendor Engagement Lead and Customer Relations
Executive Middle East/Africa

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Vendor Engagement Updates and News

- **Bahmni**
 - Approval to join the Bahmni Coalition
 - This will provide deeper access to customers and other implementers of Bahmni
 - Engaging with 2 NGO's re: pilot opportunities
- **Startup incubator**
 - Plans being developed with Startup Health to schedule webinar to portfolio companies
 - Other discussions continuing with:
 - Future4Care (co-funded by Sanofi, Gapgemini, Generali, Orange)
 - Digital Health Hub Foundation (UCSF)
 - Caelestinus, European incubator focused on interoperability and FHIR

Vendor Engagement Updates and News

- **Analytics and AI**
 - Clinovera - life sciences services company
 - Using AI to map terminologies to data from EMRs
 - IQVIA
 - Developing a concept to partner w/ IQVIA
- **Open Concept Lab (OCL)**
 - OCL provides real-time electronic access to terminological resources and helps you to collaboratively manage, publish, and use terminology in the cloud
 - Different ways of becoming involved:
 - Already includes GPS
 - Allowing users to create ValueSets in OCL using the SNOMED hierarchy
 - Making the OCL terminology server more SNOMED capable, perhaps using ECL

Vendor Engagement Updates and News

- **Mediclinic**

- Hospital group with facilities in Switzerland (largest private hospital group in Switzerland), South Africa, Abu Dhabi and Dubai
- Creating a unified data model that will underpin all hospital EMRs across their group, based on SNOMED

- **Global Licenses**

- Renewed Roche
- Currently working with TPP (UK EMR vendor) for license to encompass SE Asia

- **Conferences**

- Attended Arab Health in January
- Attended Vive in February
- Attended HIMSS U.S. in March

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LOINC & FHIR

Peter G. Williams

Technical Specialist



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LOINC (+ NUVA)

- A Hugely Rewarding Project to work on
- Weekly LOINC meetings + 2 days in person
- Feedback received from technical preview
- Challenges -
 - LOINC Part -> SNOMED Attribute Map
- Two new templates in development
- Release 1.0 by the end of the year

- NUVA
 - Vaccine ontology by Mes Vaccines (FR)
 - Content Pipeline coded
 - Deconstruction complete



- SNOMED on FHIR Working Group
- Meets every
 - 2nd Tuesday 20:00 UTC
 - 4th Wednesday 10:00 UTC
- Recent Topics
 - Exposing Relationship Grouping in FHIR
 - R5 Support for Extended Map Attributes
 - Record Recorder vs Asserter
- Server Support in Snowstorm, Snowstorm-lite
- SNOMED Implementation Guide: slow progress



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THANK YOU.

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Additional information

Join us at tonight's
Welcome Reception

18:00 - 20:00

Andaz Liverpool

1901 Ballroom

Light refreshments will be served.



**SNOMED CT
EXPO 2024**
OCTOBER 24-25, 2024 | SEOUL, KOREA

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Visit snomedexpo.org to submit your abstract for the opportunity to present a session or an e-Poster

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