About

SNOMED International

SNOMED International is a not-for-profit organization that owns and maintains SNOMED CT, the world’s most comprehensive clinical terminology. We play an essential role in improving the health of humankind by determining standards for a codified language that represents groups of clinical terms. This enables healthcare information to be exchanged globally for the benefit of patients and other stakeholders. We are committed to the rigorous evolution of our products and services, to support the growing needs of our Members and deliver continuous innovation for the global healthcare community.

Mission

SNOMED International produces and enhances the vocabulary that enables the clear exchange of health information for all.

Vision

By 2020 clinical terminologies will be used globally, which will result in better health, supported by one language of health.
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About

Message from the General Assembly Chair, Management Board Chair and CEO

On behalf of the organization, we are pleased to present SNOMED International's 2018 Annual Report. Through the power of our people, our Members and their collective efforts, SNOMED International and its dedicated Community of Practice continues to drive a deeper understanding, adoption and implementation of SNOMED CT. The work is exciting, and the environment is collaborative and innovative.

We are a membership organization and this report highlights the tremendous growth across all facets of our business and focuses on the accomplishments made against our Product, Adoption and Innovation strategic goals. Enabled by increasingly collaborative governance models, the organization was well positioned to embrace new Members, manage the increased demand for our product and related services and strengthen our financial position over the past year.

Over the coming year, the ability to maintain our collective focus will be pivotal for the organization as it enters the final year of our current strategic plan. As we stand on the cusp of the organization’s 2020-2025 strategy, we embrace the opportunities and demands before us, strengthened by a sense of community and purpose.

We would like to close by expressing our gratitude to our vibrant Community of Practice whose dedication allows SNOMED International and global clinical terminology to thrive, and also to our colleagues, the Executives, the Management Board and the General Assembly, whose hard work and devotion to our mission and goals continues to make us the important and vital organization that we are today.

Lies van Gennip
Chair, General Assembly

Lady Barbara Judge, CBE
Chair, Management Board

Don Sweete
CEO
About

Enabling Growth through Strategy

Our Strategic Directions and Goals

As the organization actions its 2015-2020 strategy, continual refinement has taken place to maximize our efficacy in furthering the evolution of SNOMED CT and SNOMED International. With the most recent alignment exercise approved in April 2017, the intent and actions of the organization have continued to target our strategic goals.

The following report on our annual activities demonstrates an ongoing commitment to the organization’s vision, mission and strategic directions.
SNOMED CT: An Exemplar for Clinical Terminology Worldwide

Content, mapping and delivery of the SNOMED CT product to our Members and stakeholders is the raison d'être for SNOMED International to impact the health of patients globally. The nature of the SNOMED CT terminology provides a common language to enable a consistent way of indexing, storing, retrieving, and aggregating clinical data across specialties and sites of care.

SNOMED CT is not just a coding system of diagnosis. It also covers other types of clinical findings like signs and symptoms. Encompassing tens of thousands of surgical, therapeutic and diagnostic procedures. It includes observables (for e.g., heart rate), and also contains concepts representing body structures, organisms, substances, pharmaceutical products, physical objects, physical forces, specimens and many other types of information that may need to be recorded in or around the health record.
To enable the continuous development of SNOMED CT to meet customer requirements, new content and changes to existing content is essential. In 2018, focus was given to a number of content areas, driving product improvement.

2018 Highlights include:

**Anatomy**

In the first half of 2018 an estimated 12,000 changes were implemented successfully in the anatomy hierarchy and subsequent impact on other hierarchies was reviewed and proved to be satisfactory.

An additional 2,000 hierarchical relationship changes were implemented in anatomy, disorders, procedures and other hierarchies.

Critical to underpinning many other concepts, the nature of anatomy changes in 2018 included:

- Lateralizable body structure and the SEP (Structure/Entire/Part) reference sets were validated and released.
- Work commenced on the Editorial Guidelines for musculoskeletal system.

**Drugs**

Pre-review and Alpha release of the new international model for drug content were released in February and March 2018 followed by the Demo release.

Over 20,000 modelling changes were made to improve definitions in Clinical Drugs and Manufactured Products.

Structural changes included addition of new Consumer Product hierarchy as well as the addition of new content to support the National Extension Model.

**Substances**

1,400 modifications were made to improve the structure of the substances hierarchy. Priority was given to the remodelling of substances associated with the definition of medicinal product concepts.

**Dentistry**

New concepts were added in 2018 to support maintenance of the General Dentistry Reference Set.
Product

Interoperability

To best support the interoperability of SNOMED CT with other health information standards, SNOMED International develops and manages collaboration and licensing agreements for the addition of content into SNOMED CT.

2018 content highlights included:

- ~20 new concepts were added throughout 2018 to support maintenance of the DICOM Reference Set.
- Essential maintenance to align LOINC terms to SNOMED expressions per the most recent release of LOINC (V2.64) & SNOMED CT (Jan 19).
- Mapping ICD-10 | Maintenance: Mapping of the SNOMED CT to ICD-10 map continued to ensure alignment.
- Published ICNP to SNOMED CT Interventions and Diagnoses equivalency tables. Updated the Nursing Health Issues & Nursing Activity Reference Sets after each release of SNOMED CT.
- Work continued on the addition of 531 new concepts spread over July 2018 and Jan 2019 release.
Product

A Quality Product

Remodelling, review, & completion of structural changes to **15 SUB-HIERARCHIES** in the Clinical Findings domain successfully implemented in SNOMED CT by year end.

**Completed changes to over 60 TEMPLATES**

Created to facilitate future batch auto changes are ready to implement.

**6,000 CONCEPTS**

In preparation for the Jan 2019 International release.

Volume improvements to the quality of the product are now possible due to the evolution of the organization’s authoring tooling platform.

Maintaining the quality of SNOMED CT is of core importance and rigorously undertaken by the organization on an ongoing basis.

In 2018, the scope of the Quality Initiative focused on the rearrangement of the Clinical Finding hierarchy.

This involved the remodelling of ~6,000 concepts to improve the structure and logical arrangement of like concepts with like.

This approach has enabled correction of issues related to the current arrangement of the terminology.

Corrections also addressed inconsistencies between actuals in the release and stated editorial guidelines.

Looking ahead to 2019, the Quality Initiative will apply continuous improvement iterations to streamline and improve the processes to be implemented for the remaining sub-hierarchies.
Members

Core to the Organization

The SNOMED International Member community grew to 37 as we welcomed seven new Member countries in 2018. Our Members continue to be our reason for existence and a large portion of our work focuses on providing value for our Members.
Member Growth 2007 - 2018

2018 New Members
- Argentina
- Austria
- Brazil
- Cyprus
- Finland
- Jordan
- Luxembourg

Members
Affiliate Licenses
Adoption

Supporting SNOMED CT Adoption through Relationships

Achieving and maintaining adoption of SNOMED CT is critically dependent on meeting the needs and priorities of stakeholders, specifically those of our Members.

In 2018 SNOMED International carried this out through its continued investment in dedicated executive resources in each of the globe’s main regions: the Americas, Europe, Middle East and Africa, and Asia Pacific.

Growth in adoption was furthered through new business development opportunities with affiliate and global licensees, as well as actioning unique global opportunities with vendors and the clinical community.

This was at the forefront of 2018’s relationship management accomplishments.

In partnership with Canada Health Infoway (Canada’s National Release Centre), the SNOMED CT Expo 2018 and Business Meetings in Vancouver successfully united stakeholders from the Community of Practice to discuss, share and learn from each other.

Stakeholder engagement activities and events were delivered across all regions.

The SNOMED CT user base has also been extended in a number of non-member countries including execution of a large-scale license agreement in the People’s Republic of China.
Adoption

The Spirit of Collaboration

SNOMED International has an active program of partnerships with international standards development organizations, professional clinical bodies and commercial organizations. SNOMED International engages in these partnerships with the goal of facilitating the use of SNOMED CT with other international standards and profiles.

In 2018, key agreements were signed and/or re-signed with the following organizations:

- Development license for Health Level Seven (HL7) Germany to facilitate controlled inclusion of SNOMED CT in their products.

- Definition of a controlled and ‘free for use’ SNOMED CT set of concepts for use in the HL7 International Patient Summary, the scope of which extends across the European Union.

- Definition of a controlled and ‘free for use’ SNOMED CT set of concepts for inclusion in Integrating the Health Enterprise (IHE) profiles.

Other pivotal collaboration activity in 2018 included initiation of a European Union project encompassing SNOMED CT and MedDRA, the aim of which is to facilitate improved drug adverse incident reporting from the clinical record. Progress initiated with INSERM to include rare disease content in SNOMED CT, ensuring alignment with Orphanet. Further, a new project with the Academy of Nutrition and Dietetics has started to incorporate and update relevant new and existing content in SNOMED CT.
Adoption

By Clinicians, for Clinicians

Clinical engagement activities have centred around the creation and support of Clinical Reference Groups to contribute expert content to SNOMED CT, as well as providing global clinical outreach to drive use and adoption.

Clinical engagement leadership, supported with expertise from the organization’s technical resources, worked collaboratively to develop tooling to support demonstration of SNOMED CT’s clinical data analysis capabilities. The production of this tool has enabled in-person engagement with clinical and academic communities and continues to build traction. 2018 also spurred prospective relationships with OHDSI, the Observational Health Data Sciences and Informatics Network, resulting in another mechanism for continuous SNOMED CT product improvement.

Improving Outcomes for Disabled Children

In South Tyneside and Sunderland, national-level data about disabled children was non-existent and outcomes for disabled children varied widely. SNOMED CT was used to create a Disabilities Terminology Set (DTS) subset designed to accurately record the needs of disabled children and their families at different stages of their care journeys. The approach also included developed integrated patient-centred tools that empowered the families and reduced duplication of effort. Now that more than just health conditions are recorded, different levels of detail relevant to the stage in the care journey can be captured and analysis done at different levels. Proactive healthcare is encouraged and the families feel empowered to raise the issues most important to them and have them addressed by a multidisciplinary care team.
Adoption

Engaging Industry

Growing our relationship with the organizations that design and sell SNOMED CT-enabled systems remained a focus for us in 2018.

In addition to furthering our relationships with vendors who have been involved with SNOMED International for some time, we also expanded regional efforts, particularly with vendors in the Asia Pacific and South American regions. To support SNOMED International’s innovation strategic direction, the organization continued to develop relationships with vendors in the artificial intelligence, genomics and big data domains.

The Marketplace offers a space where vendors who leverage SNOMED CT within their products can exchange business information with potential purchasers.

39 vendors are now registered on the Marketplace, representing the vendor community across clinical domains from every region of the globe.
Adoption

Fostering SNOMED CT Education and Product Support

SNOMED International develops, delivers and maintains educational materials, specifications and guidance that support the adoption, implementation and deployment of SNOMED CT-enabled solutions. In 2018 we continued to add to the SNOMED CT knowledge base by redesigning and introducing a number of new guidelines and education courses.

The steady increase in interest in our educational resources necessitated the introduction of fees for some of our courses. In 2018 we migrated the SNOMED CT E-Learning platform to an external hosting provider and launched the new SNOMED CT Course Catalogue.

- A redesigned SNOMED CT Document Library [snomed.org/doc](http://snomed.org/doc)
- A redesigned SNOMED CT Extensions Practical Guide [snomed.org/extpg](http://snomed.org/extpg)
- An updated SNOMED CT Editorial Guide to incorporate concept model rules generated from the Machine Readable Concept Model.
Inter-Agency Collaboration Fuels Adoption in New Zealand

The New Zealand government has recognized SNOMED CT as essential to the country’s digital future as the universal language for health and social information. However, moving from Read codes to SNOMED CT has been a hard change to get started. Seeing that some health providers were ready to move, representatives of three agencies – the Ministry of Health, Ministry of Social Development and ACC – crossed the street to work with each other and brave early adopters. The agencies learned how to work in a new way based on trust and a common purpose around public service in the health system. They worked closely with leading health providers and their industry to remove roadblocks and pave the way for others. This promises to generate a tide of improvements for years to come as part of New Zealand’s digital future in health and social care.
In 2018, SNOMED International’s Technical Services function continued to evolve the platforms used to enable our strategic goals.

The successful release of the SNOMED CT International Edition, Spanish Edition and the growing range of derivative products was only made possible with a marriage of effort among Content and Technical subject matter experts continuously striving to improve SNOMED CT.

As SNOMED CT is a vast clinical terminology that continues to evolve, investment in technical development time and resources have allowed for the ability to make large scale changes through the use of templates for both creation and maintenance of existing content.

The SNOMED International Managed Service was created to provide an online service that allows SNOMED International Members to manage and distribute a release of a SNOMED CT local extension from start to finish, in a simple, standard manner. In 2018, the Managed Service has now grown to 7 Members with 8 extension releases and 3 beta releases.

Development of an open source terminology server, Snowstorm, continued to progress in 2018 and a small community of software developers is starting to grow around the software. Supporting our Adoption strategic direction, a number of software developer training days were successfully planned and run in South America and Europe using Snowstorm as the open source SNOMED CT software for developers to use.

- Continued growth in the number of users visiting the SNOMED CT Browser. 2018 saw growth of 136% during 2018 representing 163,250 users having visited the service.

- Looking forward to 2019, description logic functionality has been included in the authoring platform in preparation for the move to using the Web Ontology Language (OWL) format to represent the stated view of the terminology.
Innovation

A Thriving Environment for Innovation

Acknowledging that the very nature of SNOMED CT is innovative in how it operates as a terminology, 2018 was the inaugural year that SNOMED International explicitly focused on driving innovation through strategy, resources and projects.

The SNOMED International Innovation Framework was introduced in the first half of the year and gave staff the opportunity to provide and subsequently vote on innovation areas. Three topics were selected to be taken forward for proof of concepts.

1. SNOMED CT to ICD-11 map generation, identifying mechanisms to generate map records between SNOMED CT and ICD-11 through automation instead of manually mapping each record, as far as is feasible.

2. SNOMED CT in the user interface, promoting best practice and innovative user interface design by clinical applications that use SNOMED CT.

3. Real-time, incremental classification, by removing classification waiting times and to provide a basis for future use in the post-coordination of expressions to classify expressions in real time.

These proof of concept initiatives will be progressed during 2019 and will result in findings that may evolve into larger scale projects if benefits have been proven.

There will be further iterations of the Innovation Framework throughout 2019 as the organization continues to innovate for the benefit of Members and the wider community.
Innovation

Showcasing SNOMED CT in the Genomics Domain

The SNOMED CT genomics pilot has been finalized with the Australian Genomics Health Alliance, with an additional pilot coming online in early 2019 to undertake specified work to assess how SNOMED CT can support genomics work globally.

Further supporting this work, the Clinical Team hosted two very successful SNOMED and genomics workshops within both the April and October meetings. These have received positive feedback, and have posed a tremendous opportunity to showcase SNOMED CT implementations within the genomics space.

SNOMED International continues work with the Global Alliance for Genomics and Health (GA4GH) to ensure that SNOMED CT is included in the development of new genomics standards and specifications.

Keeping Pace with Innovation in Industry

Making inroads with industry leaders and maintaining relationships for knowledge exchange with leading edge technology organizations continued to be a priority in 2018, particularly in the areas of artificial intelligence, genomics, big data and pharmacological areas. SNOMED CT has continued to serve as a unifying ontology enabling the innovation taking place in global digital health industry today.
Enabling Success

Growing our Efficiency while Safeguarding our Reputation and Corporate Obligations

Bringing all employees together: Providing opportunities for collaboration and knowledge.

Having a globally distributed and wholly remote workforce requires a high degree of staff autonomy. We ensure that staff have avenues to develop and maintain strong working relationships with colleagues across the lines of business. In 2018 we held a successful organizational retreat to reconnect and re-establish working relationships critical to a virtual, high performing organization.

Our virtual workforce enables our growth.

Over the course of 2018, we completed a comprehensive human resources audit that focused on ensuring regulatory compliance as well as refining policies and procedures to suit an organization of our size and structure. In collaboration with other lines of business, numerous policies and processes were amended to ensure organizational equity, reduce redundancy, eliminate ambiguity, and align with current best practices. Further work is to be completed in 2019 as a result of the audit.

Moving forward, Human Resources’ efforts will focus on the retention and development of staff to support the progression of the organization’s strategy and objectives.
Enabling Success

Connecting through Communications

Building from 2017’s established communications strategy, messaging and process, 2018 focused on continuing to build the tools imperative to effective outreach. The snomed.org redesign process was completed and launched in October 2018 after significant stakeholder engagement and testing. Providing a clear message of who we are, what we stand for and our diverse range of committed stakeholders, we made it a priority to reunite a range of our content, including SNOMED in Action, SNOMED Inside, SNOMED CT Expo and the Concept Newsletter so that we can attract and retain our audience in a more effective way.

With the enhanced ability to connect with the SNOMED CT audience through the organization’s website, social media and media partners, SNOMED International continued to innovate through:

Fostering consistent and innovative means of communicating internally across our workforce remained a priority in 2018 to maximize connectedness and enhance productivity. Looking ahead to 2019, the communications strategy will undergo revision in line with the organization’s corporate strategy as well as a focus on benefits evaluation and value proposition activities.
The Technical Services team, with the help of other lines of business, drove the implementation of the new European Union General Data Protection Regulation processes and policies to ensure that the organization was compliant in Spring 2018.

Enabling Success

High Performing Technology Infrastructure: Ensuring Business as Usual for a Growing Community

SNOMED International is an organization which lives and breathes working in the cloud. With the virtual nature of the organization and the Community, ensuring that services are reliable and supported, means that infrastructure is not on premise but operates in the cloud.

As with previous years, the technical infrastructure has continued to evolve around the organization’s ways of working - ensuring that SNOMED International, its staff and the Community have tools and services to work with SNOMED CT and collaborate with each other. The continual evolution of our infrastructure means we can continue to provide quality services and tools from the essential (e.g., email and calendar) to the more complex (e.g., project management and collaboration tools). In 2018 almost all infrastructure was consolidated to Amazon Web Services to provide a platform for cost-saving efforts going forward.

Move to the UK Complete

While the decision to wind down the Danish entity was made several years ago, the trademarks had to be transferred to the UK entity in order for the process to be complete. The final tasks have now been completed and the Danish entity has now been fully dissolved. In order to protect the SNOMED International name from being used by others, in 2018 we also formed a wholly owned subsidiary company of IHTSDO called SNOMED International Limited.

Enabling Success

Transforming our Finance and Corporate Services Processes

A major focus in 2018 was a project to apply Lean transformation principles to the Finance and Corporate services processes and ways of working. The greatest achievement in this area was the insourcing of the finance processes. This enabled a reduction of the number of information flows resulting in a much more streamlined and efficient finance solution for the organization. Our high-performing finance team also provides monthly management accounts and annual budgets, tracks income and expenditure as well as overseeing procurement and other financial processes to ensure good governance and financial control.

One of the benefits to relocating to the UK was the opportunity for establishing ways we could safely earn more interest on our funds. An investment strategy was agreed upon with the Management Board’s Finance, Audit and Risk Committee. This has enabled the organization to earn interest from not only the funds held in a deposit account but also from investments made into UK Treasury Deposits which produce a higher rate of return.
Financial Snapshot

SNOMED International Income and Expenditure Report

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>10,962,531</td>
<td>10,933,894</td>
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<tr>
<td>Cost of sales</td>
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<td>Gross surplus</td>
<td>3,778,568</td>
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<td>Administrative expenses</td>
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<td>Operating surplus/ (deficit)</td>
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<td>Interest receivable and similar income</td>
<td>140,219</td>
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<td>Surplus on ordinary activities before taxation</td>
<td>482,182</td>
<td>26,444</td>
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<tr>
<td>Taxation</td>
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<tr>
<td>Surplus for the financial year</td>
<td>482,182</td>
<td>26,444</td>
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</table>

The financial information presented within this document does not comprise the statutory accounts of the International Health Terminology Standards Development Organisation for the financial years ending 31 December 2018 and 31 December 2017 but represents extracts from them. These extracts do not provide as full an understanding of the financial performance and position, or financial and investing activities, of the company as the complete Financial Statements.

The statutory accounts for those years have been reported on by the company’s auditor and delivered to the registrar of companies. The reports of the auditor were (i) unqualified, (ii) did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under section 498 (2) or (3) of the Companies Act 2006. The Financial Statements, including the auditor’s report, can be obtained free of charge on request to the company at One Kingdom Street, Paddington Central, London W2 6BD or by email to invoices@snomed.org.
Governance

Accountable and Integrated Governance

SNOMED International is a 'Members-First' organization. Our Members are national government agencies or other bodies that the national government in question has deemed suitable and whose responsibilities and authority include appropriately establishing, monitoring, promoting or regulating concept-based systems of clinical terminology for that territory or country.

General Assembly

The General Assembly is SNOMED International’s highest authority. The General Assembly ensures that the purpose, objects and principles of the Association are pursued and that the interests of the organization are safeguarded. The General Assembly can make binding decisions regarding all matters relating to SNOMED International, subject to and in accordance with the provisions of the Articles of Association.

<table>
<thead>
<tr>
<th>Country</th>
<th>Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Alejandro Lopez Osornio</td>
</tr>
<tr>
<td>Australia</td>
<td>Kerri Burden</td>
</tr>
<tr>
<td>Austria</td>
<td>Dr. Stefan Sabutsch</td>
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<tr>
<td>Belgium</td>
<td>Tom Van Renterghem</td>
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<tr>
<td>Brazil</td>
<td>Wilson Coelho</td>
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<tr>
<td>Canada</td>
<td>Michael Green</td>
</tr>
<tr>
<td>Chile</td>
<td>Alejandra Lozano</td>
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<tr>
<td>Cyprus</td>
<td>Vasos Scoutellas</td>
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<tr>
<td>Czech Republic</td>
<td>Libor Seidl</td>
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<tr>
<td>Denmark</td>
<td>Marianne Holdt</td>
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<tr>
<td>Finland</td>
<td>Juha Mykkänen</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>Vicky Fung</td>
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<tr>
<td>Iceland</td>
<td>Gudrun Audur Hardardottir</td>
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<tr>
<td>India</td>
<td>Lav Argarwal</td>
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<tr>
<td>Ireland</td>
<td>Niall Sinnott</td>
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<tr>
<td>Israel</td>
<td>Boaz Lev</td>
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<tr>
<td>Jordan</td>
<td>Eng. Feras Kamal</td>
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<tr>
<td>Lithuania</td>
<td>Martynas Bieliauskas</td>
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<tr>
<td>Luxembourg</td>
<td>Raffaella Vaccaroli</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Md Khadzir Sheikh Ahmad</td>
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<td>Malta</td>
<td>Hugo Agius-Muscat</td>
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<tr>
<td>Netherlands</td>
<td>Lies van Gennip (Chair)</td>
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<td>New Zealand</td>
<td>Alastair Kenworthy</td>
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<td>Norway</td>
<td>Alfild Stokke</td>
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<td>Poland</td>
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<td>Portugal</td>
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<td>Singapore</td>
<td>Low Cheng Ooi</td>
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<td>Slovak Republic</td>
<td>Pavol Rieger</td>
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<td>Rep. Slovenia</td>
<td>Mate Beštek</td>
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<td>Spain</td>
<td>Arturo Romero Gutiérrez</td>
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<td>Sweden</td>
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<tr>
<td>Switzerland</td>
<td>Adrian Schmid</td>
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<tr>
<td>United Kingdom</td>
<td>Alex Elias (Vice-Chair)</td>
</tr>
<tr>
<td>United States</td>
<td>Vivian Auld</td>
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<tr>
<td>Uruguay</td>
<td>Pablo Orefice</td>
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### Member Forum

The Member Forum acts as an advisory body to SNOMED International and optimizes collaboration and coordination among Member countries.

It is co-chaired by an elected representative of the Member Forum along with a co-chair from SNOMED International.

<table>
<thead>
<tr>
<th>Country</th>
<th>Representative/s</th>
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<tbody>
<tr>
<td>Argentina</td>
<td>Guillermo Reynoso &amp; Alejandro Lopez Osorno</td>
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<td>Australia</td>
<td>Dion McMurtrie &amp; Matt Cordell</td>
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<td>Brazil</td>
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<td>Estonia</td>
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<td>Fareed Saroni &amp; Mohd Sakri, Mohd Syazrin</td>
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<tr>
<td>Malta</td>
<td>Hugo Agius-Muscat</td>
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<td>Netherlands</td>
<td>Feikje Hielkema-Raadsveld &amp; Pim Volkert (Co-chair)</td>
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<td>New Zealand</td>
<td>Alastair Kenworthy &amp; Tracy Thompson</td>
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<td>Jostein Ven &amp; Oyvind Aassve</td>
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<td>Poland</td>
<td>Martyna Kulesza &amp; Lukasz Furgala</td>
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<td>Portugal</td>
<td>Anabela Santos &amp; Carla Marques Pereira</td>
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<td>Republic of Slovenia</td>
<td>Alen Vreko</td>
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<td>Adele Lee &amp; Wong Jing Jing</td>
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<td>Slovak Republic</td>
<td>Monica Geletová &amp; Patricia Khandlová</td>
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<td>Spain</td>
<td>Arturo Romero-Gutiérrez</td>
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<td>Lotti Barlow &amp; Daniel Karlsson</td>
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<td>United Kingdom</td>
<td>Angie Quinn &amp; Elaine Wooler</td>
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<td>Vivian Auld &amp; Susan L. Roy</td>
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<td>Uruguay</td>
<td>Pablo Orefice &amp; Fernando Portilla</td>
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### Management Board

The Management Board has legal and oversight responsibility for the management and direction of SNOMED International.

The terms of the appointments are staggered with the longest term being three years and the shortest being one year. Management Board appointments are non-executive director positions which carry legal responsibility for the governance of the organization.

#### 2018 Management Board Directors

- Lady Barbara Judge, CBE (Chair)
- Joanne Burns
- Cheemin Bo-Linn
- Doug Fridsma
- Mengchun Gong
- Matic Meglic
- Jeremy Thorp (retired in October 2018)
Governance

Advisory Groups

Advisory Groups conduct specific activities that contribute to SNOMED International’s mandate. These agile groups adapt to meet the changing needs and direction of the organization.

- Content Managers Advisory Group (Monica Harry & Cathy Richardson, co-chairs)
- E-Learning Advisory Group (Linda Bird, chair)
- Modelling Advisory Group (Peter G. Williams and Yongsheng Gao, co-chairs)
- SNOMED CT Editorial Advisory Group (Jim Case, chair)
- Terminology Release Advisory Group (Andrew Atkinson, chair)
- Tooling User Advisory Group (Rory Davidson, chair)
- Translation User Group (Feikje Hielkema-Raadsveld, chair)

Clinical Reference, Project and Editorial Groups

Clinical Reference Groups facilitate discussion between clinicians focused on specific clinical specialties or topic areas and SNOMED International. The groups are open and transparent, and support input not limited to just the clinicians from the clinical specialty area, e.g. interested vendors and information specialists.

Linked to the CRGs are project groups focused on delivering agreed work items and editorial groups providing clinical validation for derivative products.

Clinical Reference Groups
- Allergies, Hypersensitivity and Intolerance (Bruce Goldberg, chair)
- Anaesthesia (Patrick McCormick, Andrew Norton, Andrew Marchant, co-leads)
- Dentistry (Mark Jurkovich and Jorn Jorgensen, co-leads)
- Genomics and Precision Medicine (Ian Green and Jane Millar, co-leads)
- General Practice/Family Practice (Ian Green and Jane Millar, co-leads)
- Mental and Behavioural Health (Piper Ranallo & Michael First, co-leads)
- Nursing (Roberta Severin, lead)
- Pathology and Laboratory Medicine (Deborah Drake and Daniel Karlsson, co-leads)

Project & Editorial Groups
- Cancer Synoptic Reporting Project Group (Scott Campbell, lead)
- Dentistry Derivatives Editorial Group space (Ian Green and Jane Millar, co-leads)
- Diabetes Project Group (Paul Amos, lead)
- Nutrition Care Process Terminology Clinical Project Group (Constantina Papoutsakis, chair)
- Organism and Infectious Disease Model Project (Jeff Wilcke, chair)
- Event, Condition and Episode Model Project (Bruce Goldberg, chair)
- Observable and Investigation Model Project Group (Daniel Karlsson, chair)
- Drug Project (Toni Morrison and Phuong Skovgaard, co-chairs)