HL7 AUSTRALIA BUSINESS & OPERATING MODELS

Version 1.0, JUNE 2025

www.HL7.com.au

Executive summary

This document describes HL7 Australia's current business and operating models and explores changes that can be expected within the next few years. The business model describes *how HL7 Australia creates, captures and delivers value, and to whom*, while the operating model describes *how we structure and manage our operations to execute the business model effectively*.

HL7 Australia's current business model

Our core value propositions are:

- Delivering and maintaining trusted standards needed for the exchange, integration, sharing and retrieval of digital health information that underpins the provision of secure, fit-for-purpose and connected digital solutions nation-wide and supports clinical practice and the governance, management, delivery and evaluation of health services.

- Providing a learning and supportive community for standards developers and implementers to deliver a digitally enabled, person-centred, inclusive, and data driven health ecosystem.

Our primary customer segments are:

- Health system policy makers and funders, who make up 18% of our organisational members

- Health software vendors and consultants (77%)

- Health service providers.

Our membership predominantly comprises individuals (60%), though organisation members provide 96% of our membership revenue.

HL7 Australia relies upon key partnerships to deliver value, including with HL7 International, the Australian Government Department of Health and Aged Care, the Australian Digital Health Agency, CSIRO, and the Medical Software Industry Association.

Our current revenue streams are charted at right, while our current cost structures and depicted overleaf.
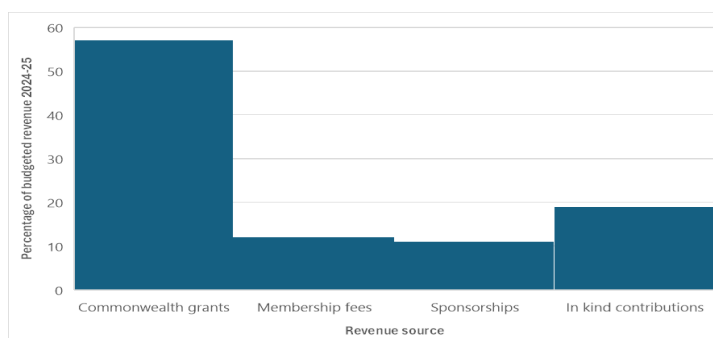
**HL7 Australia 2024-25 expected revenue sources, October 2024**
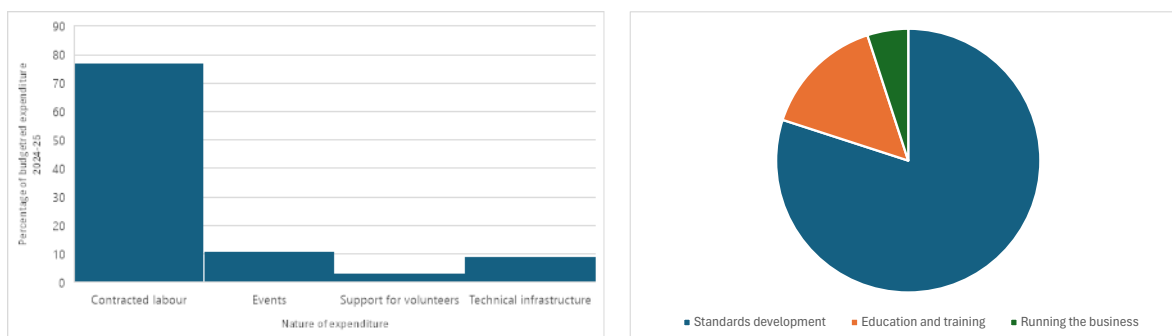
HL7 Australia 2024-25 expected cost structures, October 2024

The three greatest risks confronting HL7 Australia's business model are:

1. The standards we produce locally and manage for HL7 International are **public goods** - products that are both non-excludable and non-rivalrous in that their use by one organisation neither prevents access by other people, nor reduces availability to others.

    Public goods are notoriously under-provided in free markets. Because of their non-rivalry and non-excludability, there is incentive not to contribute to their production and it may be difficult to charge for their use. For this reason, the production of standards is often the result of collective action and/or government intervention.

2. Under-appreciation of the crucial role of **maintenance** in the standards lifecycle (depicted below).
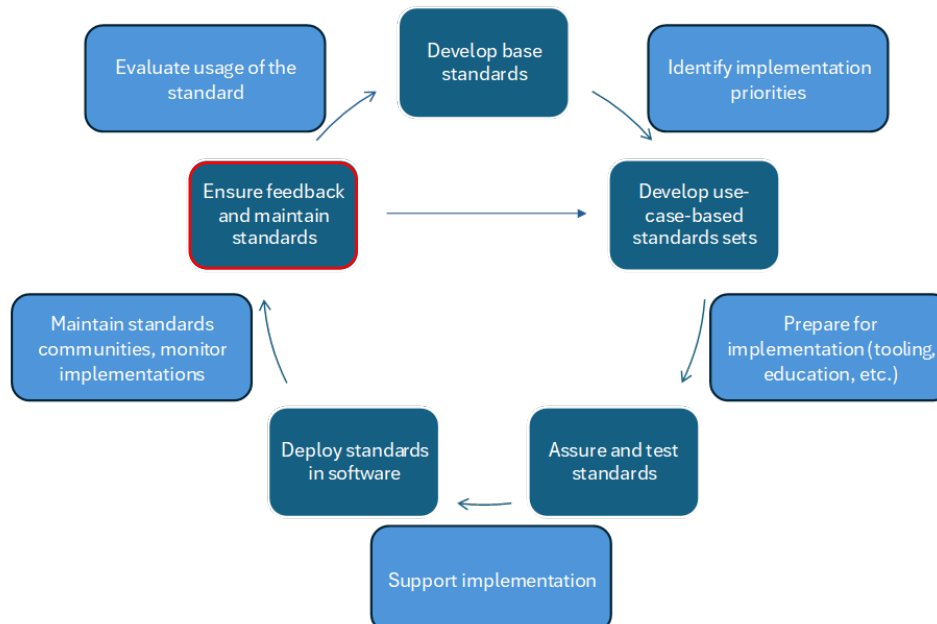
    For example, HL7 V2 standards are still in widespread use in Australia and internationally and have required regular maintenance for 35 years.

    While a variety of pathways for developing FHIR standards to both underpin the national digital health strategy and meet other industry needs are now available, current investment is heavily focused on initial

development. But all these pathways rely on HL7 Australia as the long-term maintainer of a rapidly growing asset stock, as depicted below.
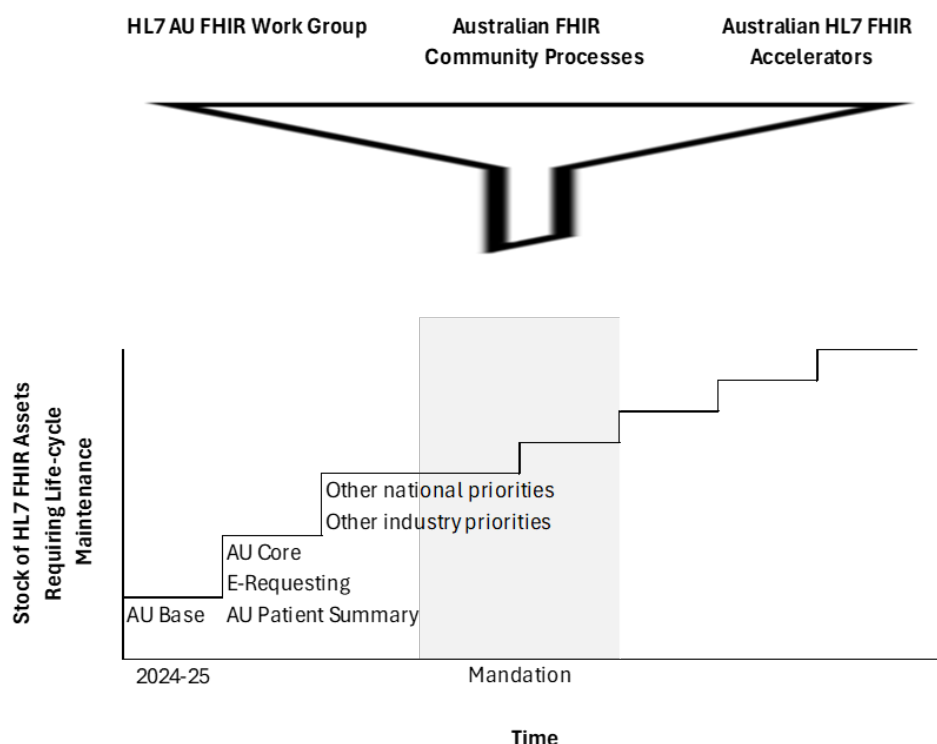
[Note: 'Mandation' in the above diagram refers to the enactment of legislation recently introduced into the Australian parliament in November 2024 and which is likely to provide a significant driver for standardisation.]

3. **Investment imbalance** and an **unsustainable cost profile**. HL7 Australia is, for the time being, overly dependent on Commonwealth funding. The mandation of health data sharing can be expected to increase the private benefit of engagement in standards development and maintenance (since this provides software developers and vendors users with a measure of control over the standards they will be required to use) and a drive a greater contribution from industry.

   And HL7 Australia is unsustainably dependent on a model of unpaid management. This is a driver of turnover and non-participation in higher level governance, both of which undermine both the organisation and its critical contribution.

The diagram overleaf describes both the current HL7 Australia business model and changes that are required to it over the next few years (the latter in red).

Key partnerships	Key activities	Value propositions	Customer relationships	Customer segments
HL7 International Australian Government Department of Health and Aged Care (DoHAC) Australian Digital Health Agency (ADHA) CSIRO Other key policy, funding, advocacy and influencing agencies, including in the private sector State and Territory health and wellbeing agencies Standards development volunteers Medical Software Industry Association (MSIA) Education and training entities	Providing and promoting a portfolio of standards development pathways Making HL7 International standards available in the Australian realm Ensuring Australian requirements and perspectives are built into HL7 International standards Supporting standards developer and implementer communities Maintaining Australian localisations Providing and supporting education and training Providing independent expert advice Providing technical events Providing process and member support platforms	Delivering trusted standards as needed for the exchange, integration, sharing and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. Providing a learning and supportive community for standards developers and implementers to deliver an Australian health sector in which everyone can securely access and use the right health data when and where they need it.	Communities, co-creation and self-service, supported by: • Outreach • Leveraging market forces • Community-based support and expertise • Evidence, feedback and continuous improvement • Personalisation	Health, aged, disability, and social care policy makers, funders, advocates, and influencers Health, aged, disability, and social care software providers Health, aged, disability, and social care service providers who in turn enable Australian health consumers and taxpayers to enjoy a connected, high quality health system at the lowest achievable cost cross-segmented at finer levels to highlight and personalise for lesser serviced domains such as aged care and allied health.
	Key resources Volunteer & paid labour, governance and operational processes, HL7 IP, infrastructure, goodwill		**Channels** Online multi-channel Face to face	

Cost structure	Revenue streams
Contracted and/or employed labour Events Support for voluteers Technical infrastructure	Commonwealth government grants Membership fees Sponsorships In-kind contributions Interest Philanthropy

HL7 Australia current and target business model

HL7 Australia's current operating model

Our operating model is underpinned by a set of principles described in Section .

The products we deliver comprise consensus-based standards in various forms and training artefacts. Our services include standards development and maintenance, member services, technical services, training, event provision and management, and basic information services including newsletters.

HL7 International's intellectual property rights extend to any HL7 material that has passed ballot. This includes localisations of HL7 Protocol Specifications by International Affiliates (such as HL7 Australia) that have passed ballot at the Affiliate level.

HL7 International grants to HL7 Australia a non-transferable, royalty-free, non-exclusive license and right to use HL7 Protocol Specifications, including the right to distribute and provide access to the HL7 Protocol Specifications to HL7 Australia members in good standing.

All HL7 Protocol Specifications are protected under the provisions of US and International copyright law. In this respect, HL7 International recognises that the HL7 Protocol Specifications are the work products of HL7 members and acts as the collective representative the member's interests.

All members of HL7 have usage rights to the HL7 Protocol Specifications as authorised by the HL7 member agreements and International Affiliate agreements.

HL7 International's objective in asserting and enforcing copyrights in the HL7 Protocol Specifications is to "assure that the public and end-users of the HL7 Protocol Specifications may rely upon HL7 to be an official source of the most current and accurate versions of the HL7 Protocol Specifications.

The diagrams on the next two pages describe both the current HL7 Australia operating model comprising business fundamental and business enabler respectively) and changes that are required to it over the next few years (the latter in red).

Service design principles	Culture and values
Responsive to market needs Based on expert opinion Developed through multi-stakeholder processes Transparent, open, and impartial Based on consensus Using international standards where possible Asset-based community development Cognisant of our small market Part of a community of communities Learner-centred, actionable education and training Working in partnership	Respect for and promotion of the expertise and commitment of our members Building communities of interest and contributing positively to dialogue amongst stakeholders Open, inclusive, transparent, consensus-building, ethical Continuously seeking improvement
Governance	**Key processes**
Greater separation of governance and management Guided by our Constitution, the HL7 Australia Governance and Operations Manual and our International Affiliate Agreement Guiding standards development via HL7 Working Group protocols and the Australian FHIR Management Framework	Election of Board members Establishment of working and subsidiary groups Standards development, balloting and publication

Business fundamentals (left vertical axis label)

HL7 Australia current and target business fundamentals

Organisation design

Clear lines of responsibility

Spatially and sectorally **more representative** of the market

Product/service design

Products - Standards and training artefacts

Services - **Improved** member and information services, event provision and management, **enhanced** member support

Greater clarity regarding our training role

Knowledge, information & data

Knowledge encapsulated in standards and standards development tooling, but also in the collective minds of our communities. **More focus on knowledge translation**

Information about our operating contexts and strategic directions in standardisation, largely in the collective minds of our communities. **More focus on information dissemination**

Data captured about our members, stakeholders and activities is **analysed and used for continuous improvement**

IT

A more integrated business, data and system architecture

Fit for purpose business and member support tools.

Risk/opportunity management

Managed by the Board

Major current opportunity: A funded, national (Commonwealth, States, and Territories) digital health agenda for health data exchange based on the HL7 FHIR standard associated FHIR capabilities, and recognition by the agencies concerned that a sustainable and active HL7 Australia is an essential partner.

Major current risks: **Lower** reliance on a volunteer Board to both govern and manage a complex, distributed organisation

A relatively small national pool of standards development expertise to draw upon to meet an aggressive digital health agenda

Business enablers

HL7 Australia current and target business enablers

Resourcing implications

There are significant implications associated with maturing HL7 Australia's business and operating models to simultaneously support upscaling of the nation's standards development, adoption and implementation capabilities, provide enhanced services to members and other stakeholders, and assure the organisation's long-term sustainability.
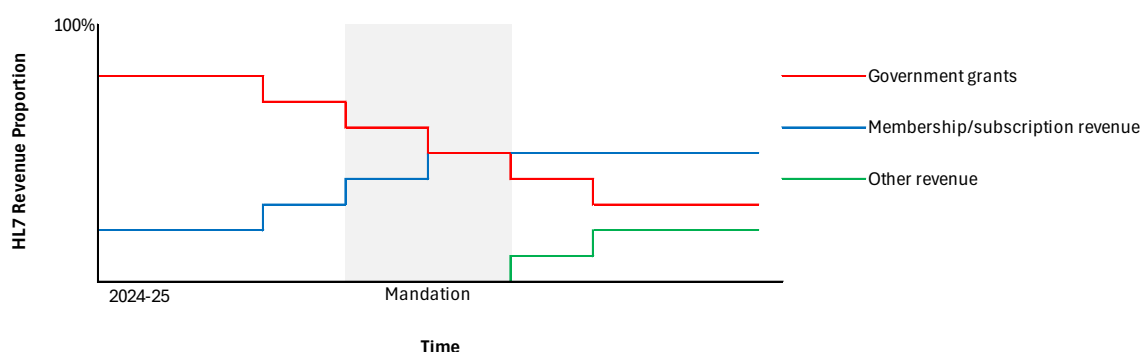
There are two key resourcing issues:

1. Our current level of resourcing will not sustain the current high levels of activity, let alone upscaling standards development from here and extending into more adoption and implementation support.

    We must achieve a more sustainable resourcing base for the next three to five years.

2. We cannot continue to rely on government grants as our main source of income.

    We must restructure our revenue portfolio in a major way, as depicted below.

Table of Contents

Table of Figures

Version Control

Version	Date	Descriptor	Contributors	Distributed to
0.01	9/10/2024	Initial draft	D Rowlands	Board
0.02	2/11/2024	Revised draft	A Bond R Daniels D Rowlands	Board
0.03	26/11/2024	Revised draft	R Karp D Rowlands	Board
0.04	1/01/2025	Revised draft	D Rowlands	Board
0.05	5/03/2025	Revised draft	D Rowlands	Board DoHAC ADHA CSIRO
1.0	25/06/2025	Revised draft	D Rowlands	Public

List of acronyms

ADHA   Australian Digital Health Agency

AFCP   Australian FHIR Community Process

AFMF   Australian FHIR Management Framework

AIHW   Australian Institute of Health and Welfare

ANSI   American National Standards Institute

B2B   Business-to-business

CRM   Customer Relationship Management

CSIRO   Commonwealth Scientific and Industrial Research Organisation

DoHAC   Department of Health and Aged Care

FCP   FHIR Community Process

FHIR   Fast Health Interoperability Resources

GOM   Governance and Operations Manual

HL7   Health Level Seven

IG   Implementation Guide

IP   Intellectual property

ISO   International Organisation for Standardization

MSIA   Medical Software Industry Association

SNOMED   Systematized Nomenclature of Medicine

TOGAF   The Open Group Architectural Framework

WHO   World Health Organisation

HL7 Australia – Business and operating models DRAFT V 0.01

1.   Introduction

This document describes HL7 Australia's current business and operating models and explores changes that can be expected within the next few years. This is a living document. Our health ecosystem and all its components, including HL7 Australia, are in constant flux, as is common in complex adaptive systems, and our business and operating models will certainly evolve both as we mature and in response to other parts of the ecosystem moving.

This document firstly outlines the generic nature of business and operating models, provides the templates for their description, and links them to some other important concepts. It then describes our current models in some detail before highlighting likely changes as we mature over the next five years.

1.1.   Business and operating models

Although the terms are sometimes used interchangeably, business and operating models are quite different, though closely related, things. Essentially:

- A **business model** describes how an organisation creates, captures and delivers value, and to whom. It answers questions like "What business are we in?" and "How do we deliver value for our customers and stakeholders?" It guides product development, pricing, market positioning, and revenue generation decision making. Its target audience, in the HL7 Australia context, is members, the Board and staff/agents, and key stakeholders such as funders and policy makers.

- An **operating model** describes how the organisation structures and manages its operations to execute its business model effectively. It answers questions like "How does the business operate?" and "What are the requirements for successful operation?" It guides resource allocation, infrastructure, personnel, and process decision making. Its target audience is the Board and staff/agents.

1.2.   Some other concepts

Two other concepts are important for this paper. **Strategy** identifies the organisation's priorities for a defined period, and **operations** are the activities we undertake via the operating model. The operating model provides the bridge between strategy and its execution (operations). Figure 1 depicts the relationship between these concepts.
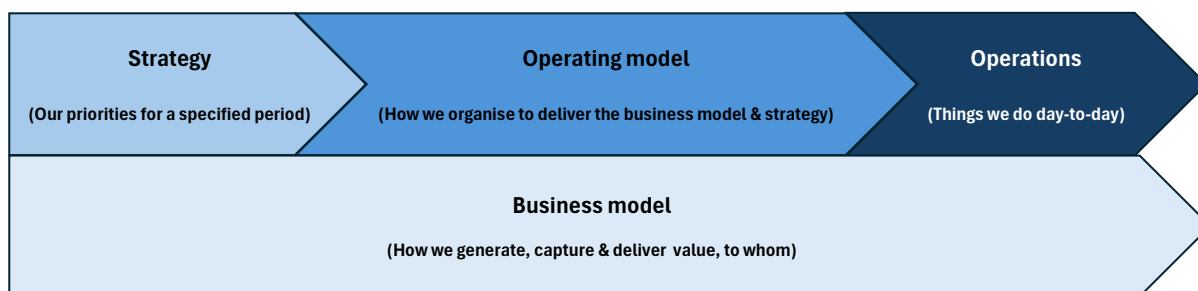
Figure 1 - Concept diagram

1.3.   Templates

There are well-defined templates for business and operating models, and these are used below. The business model template depicted in Figure 2 is based on Osterwalder[1].
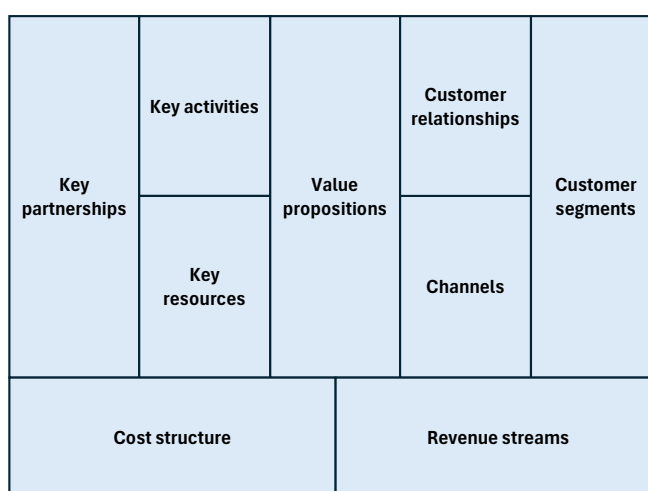
Figure 2 - Business model template

The operating model template depicted in Figure 3 is based on EY[2] but resembles a range of other templates.
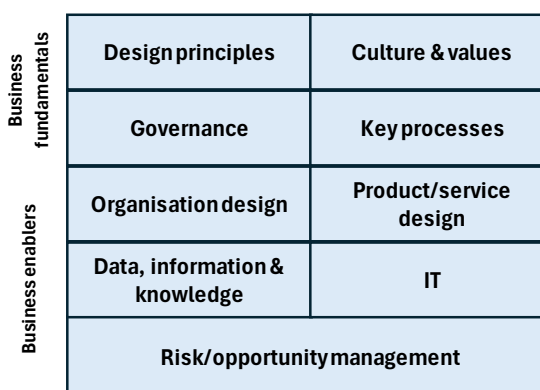
Figure 3 - Operating model template

---

[1]   Osterwalder A, nd, Business model canvas, accessed 4 September 2024 at https://www.alexosterwalder.com/.

[2]   Murphy A, Kirwin J and Rajaz K A, 2016, Operating Models: Delivering on strategy and optimizing processes, EY, accessed 4 September 2024 at https://assets.ey.com/content/dam/ey-sites/ey-com/en_ca/topics/strategy/ey-operating-models-design-and-implementation.pdf?download.

Within the 'design principles' section, the TOGAF template for describing principles is used. This comprises, for each principle:

- Principle name.

- Statement of the principle.

- Rationale (why the principle is included).

- Business implications of adopting the principle.

1.4. Scope of this document

This document focuses on HL7 Australia's business and operating models and their maturation.

It accompanies our Strategic Plan 2025-2029 to provide a comprehensive overview of what we are trying to achieve, why, and how.

2.   HL7 Australia's current business model

2.1.   Value propositions

Value propositions are literally central to the business model template depicted in Figure 2. HL7 Australia's value propositions are:

- Delivering and maintaining trusted standards needed for the exchange, integration, sharing and retrieval of digital health information that underpins the provision of secure, fit-for-purpose and connected digital solutions nation-wide and supports clinical practice and the governance, management, delivery and evaluation of health services.

- Providing a learning and supportive community for standards developers and implementers to deliver an Australian health sector in which everyone can securely access and use the right health data when and where they need it.

2.2.   Customer segments

HL7 Australia is a business-to-business (B2B) service provider that delivers value to organisations and other stakeholders. HL7 Australia's **customer segments** are:

- Health system policy makers and funders, whose needs are the system-wide adoption of community-endorsed standards, particularly FHIR, and whose requirements of HL7 Australia include the:
    - o development and maintenance of, and support for, fit-for-purpose standards within timeframes amenable to policy implementation.
    - o building of and ongoing support for communities that encourage consistent adoption.
- Health software developers and vendors, whose needs are the implementation of standards that satisfy their customer and compliance obligations, and whose requirements of HL7 Australia include:
    - o the development and maintenance of fit-for-purpose standards that are implementable at the lowest possible time and cost and enable access to the widest possible markets.
    - o access to expert advice and mentoring about the use of HL7 standards, including in conjunction with other standards.
- Health service providers, whose needs are software products and services that satisfy health service delivery obligations and whose requirements of HL7 Australia include the development and maintenance of, and support for, fit-for-purpose standards within timeframes amenable to their software implementation windows.

HL7 Australia's other primary stakeholders are Australian health consumers and taxpayers, whose interests are served by standardisation enabling our business customers to deliver a connected, high quality health system at the lowest achievable time and cost.

2.3.   Key partnerships

HL7 Australia relies upon **key partnerships** to deliver value, including with:

- HL7 International, which licenses HL7 Australia to operate as its agent within the Australian realm and supplies the HL7 International family of standards. HL7 Australia's roles in this partnership are to manage HL7's intellectual property (IP), localise HL7's standards for Australian use, build the HL7 brand within the Australian realm, and promote HL7 adoption.

- The Australian Government Department of Health and Aged Care (DoHAC), the Australian Digital Health Agency (ADHA) and CSIRO both in respect of the Sparked FHIR Accelerator and in terms of health informatics standardisation more generally. HL7 Australia's role in these partnerships is to provide expertise and leadership in the areas of standards and interoperability, independent advice, standards development infrastructure, a standards development community, and the credibility and marketability of the HL7 brand.

- Standards development 'volunteers'[3], who make their time available to create assets that are essentially public goods[4]. The volunteers best able to create fit-for-purpose standards are typically key staff in their organisations, for whom engagement in standards development carries significant opportunity cost. It is noteworthy that standards developers have a variety of motivations and often competing objectives.

    HL7 Australia's role in this partnership is to build consensus amongst potentially disparate interests, ensure standards developed are high quality (worth the effort) and to promote a culture of a learning community (further developing volunteers' capabilities).

- The Medical Software Industry Association (MSIA), which advocates for the interests of Australian health software vendors and depends on HL7

---

[3]   The majority of HL7 Australia's standards development community are not strictly volunteers in the traditional sense of the word. They are typically employed or self-employed and engage with HL7 Australia to represent their organisation's interests. However, time spent developing standards by critical staff represents an opportunity cost to these organisations that is not compensated by HL7 Australia. In this sense, they are 'volunteers' from the HL7 perspective.

[4]   Public goods are products that are both non-excludable and non-rivalrous - their use by one organisation neither prevents access by other people, nor does it reduce availability to others. Accordingly, they can be used simultaneously by more than one organisation. Issues arising with public goods include under-provision in free markets. Because of their non-rivalry and non-excludability, there is incentive not to contribute to their production and it may be difficult to charge for their use. For this reason, the production of standards is often the result of collective action and/or government intervention.

AU processes to maintain a level standards development playing field. HL7 Australia's role in this partnership is to provide a supportive standards development community that adds value to MSIA's base.

- Education and training entities with an interest in building standards workforce capabilities. HL7 Australia's roles in this partnership are to facilitate the provision of suitable expertise into education and training programs, and welcome graduates into an ongoing learning community.

2.4. Key activities

Key activities that HL7 Australia undertakes to deliver value include:

- Providing a portfolio of standards development pathways[5] that meet health system and service needs while delivering standards that software vendors can rely on for their commercial sustainability.

- Making HL7 International standards available in the Australian realm, including localising them and advocating for changes to them to better represent our needs where necessary.

- Ensuring Australian requirements and perspectives are built into HL7 International standards so that:

    o the customisation of international software to the Australian market is limited, as is

    o the customisation required for Australian software success in international markets is minimised.

- Maintaining Australian localisations of HL7 standards throughout their life cycles, which are typically long. For example, HL7 v2 standards are still being maintained 35 years after their publication.

- Supporting standards developer and implementer communities.

- Providing independent expert advice to governments and industry bodies in relation to standards, interoperability and standardisation.

- Providing and supporting education and training services.

- Providing technical events (e.g., Connectathons) and informational channels (e.g., newsletters, webcasts).

- Building and maintaining member and process support platforms.

2.5. Key resources

The **key resources** that HL7 Australia utilises to deliver value include:

---

[5] E.g., via HL7 Australia's Work Groups, Accelerators, and pathways compliant with the Australian FHIR Community Process (AFCP).

- Volunteer (Board member) labour to manage the organisation and undertake some operational tasks. This is well over and above customary Board governance roles.

- Volunteer (member and community member) labour.

- Paid labour.

- International best practice governance and operational processes described in the HL7 (Australia) Governance and Operations Manual.

- HL7 Australia and International IP (the existing stock of standards assets, reputation and brand).

- IT infrastructure – Paid and provided in-kind.

- Member and other stakeholder goodwill.

2.6.   Customer relationships

HL7 Australia's **customer relationships** (interactions) primarily occur via:

- Communities (where our customers to engage with each other and with the HL7 brand, and benefit from the collective knowledge of our user base).

- Co-creation (where our customers are deeply involved in developing our products and services).

- Self-service (where customers control their own interactions with us using the tools and resources we provide).

Customer relationship **strategies** are the methods and approaches we use to manage customer interactions, build trust, enhance satisfaction, and promote loyalty. They are designed to optimise our customers' experiences from initial awareness of HL7 through to involvement with and advocacy for us – our customers' journey (Pereira[6]).

Our customers' journeys can be considered in terms of six generic stages – though each customer is unique, and their individual experiences of these stages may differ. These stages are depicted in Figure 4

---

[6]   Pereira D, 19 September 2024, *Customer Relationship*, accessed 23 September 2024 at https://businessmodelanalyst.com/customer-relationship-business-model-canvas/.

Leveraging market forces

Consideration of adoption of HL7 into the customer's product/service line

Adoption

Our outreach

Our community's expertise

Our community-based support

Initial awareness of HL7 and its relevance to the customer's business

Deployment and support of HL7-based products and services

Our personalisation

Leveraging market forces

Feedback and continuous improvement

Advocating for others to join the movement

Remaining and maturing within the HL7 community and retaining the use of HL7

Leveraging market forces

Figure 4 - HL7 customer journey

Per Figure 4, HL7 Australia's primary (and interconnected) customer relationship strategies are:

- Awareness raising and education (outreach). These are primary strategies for ensuring that the people who need to know about HL7 know the right things about it. Relevant tools include stakeholder analysis, proactive communication, marketing and social media, responsiveness to customer inquiries, and the development of an evidence base for the benefits of standardisation.

- Leveraging market forces. This is a primary strategy for building awareness of HL7, encouraging customers towards adoption, and maturing the health ecosystem towards interoperability. It recognises that the ecosystem comprises many stakeholders whose collective actions are critical to interoperability, but whose inclination is often to behave competitively and not collaborate. Relevant tools include empathic understanding of markets, trust, promotion of collaborative behaviours, and community partnerships.

- Providing and facilitating community-based support. This is a primary strategy for encouraging customers towards adoption and deployment. Engaging customers in the co-creation of standards ensures our standards will meet their needs and their expectations are realistic. Being part of a learning community of their peers ensures our customers have the expertise they need to implement, deploy, and maintain the products and services they have based on HL7. It also ensures that all our customer segments – policy makers and funders, software providers, and health service providers – are interacting to co-create our future health system.

- Leveraging our community's expertise. This is fundamental to implementing our standards in ways that ensure the whole health system

is greater than the sum of its parts. The idiosyncratic implementation of standards can be a barrier to, rather than an enabler of, interoperability. This can happen either by design or through insufficient knowledge and experience. Optimal deployment relies on good (and often transformative) business decision making as well as technical skills. Relevant approaches include identifying and promoting industry leaders, working with industry partners, and capacity building.

- Harvesting evidence, providing feedback, and continuous improvement. These are fundamental to maturing the HL7 community, software and health service provider sectors, scaling up usage, and strengthening the resulting national health information infrastructure. Digitisation of the health sector will never be 'finished'. New opportunities will follow technological, data, clinical and business advances. Accordingly, HL7 Australia's business model must be agile enough to recognise advances that can be harnessed, trusted enough for the organisation to be taken seriously when talking about them, and credible enough to provide a safe environment for change.

- Personalisation is important at every stage of the customer journey, but particularly in encouraging our customers to stay the course and leveraging their expertise to advocate for us and our cause. Relevant approaches include knowing our customers and stakeholders (organisations and their staff/agents) and validating that knowledge, maintaining multi-channel contact with them, and deepening the connections between them and our brand.

2.7. Distribution channels

The primary **channels** via which HL7 Australia delivers its products and service are:

- Online, via the HL7 Australia website, FHIR Community Chat channel, Jira item tracking, GitHub code repositories and Confluence spaces. The HL7 Australia website includes a link to the HL7 International site for access to the international standards.

- Face to face and virtual meetings and events.

2.8. Revenue streams

The current **revenue streams** supporting our base operations comprise:

- Commonwealth government grants (approximately 57% of total budgeted revenue in 2024-25).

- Membership fees (12%).

- Sponsorships for events (11%).

- In-kind contributions from members and Board members (19%).

- Interest.

This distribution of funding sources is depicted in Figure 5.

This does not include project funding (e.g., FHIR training) that at best covers the associated costs and does not contribute to running the organisation's core functions.
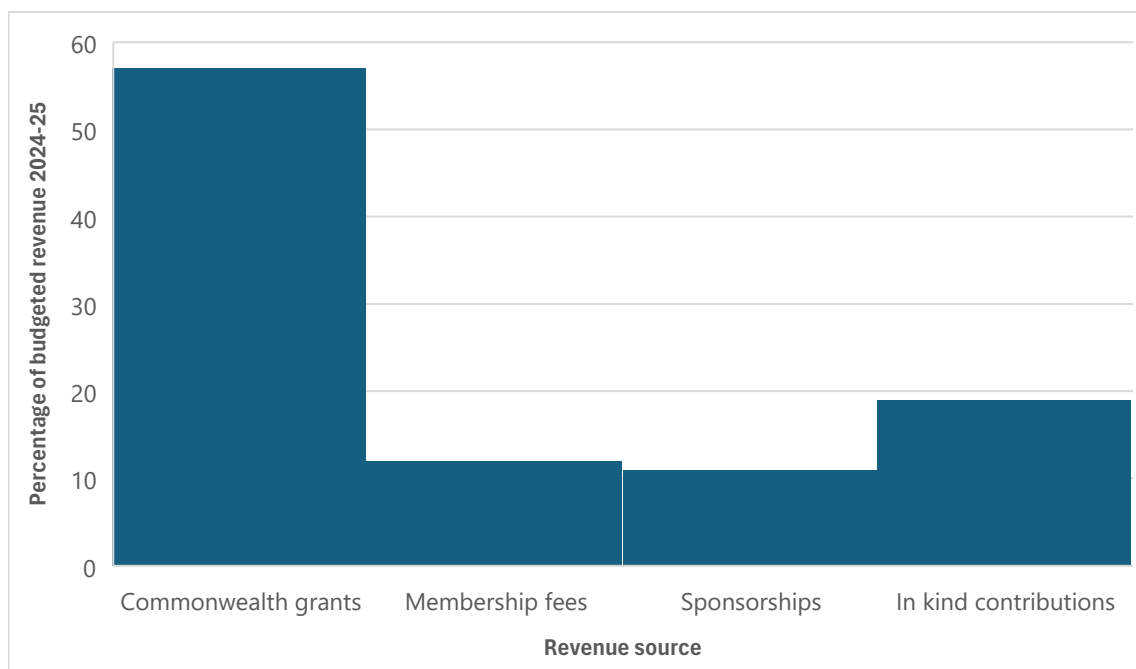
Figure 5 - HL7 Australia 2024-25 expected revenue sources, October 2024

2.9. Cost structure

HL7 Australia's current **cost structure** comprises:

1. By nature of expenditure:

    o Contracted labour (approximately 77% of total budgeted expenditure in 2024-25).

    o Events (11%)

    o Support for volunteers (3%).

    o Technical infrastructure (9%)

2. By destination of expenditure:

    o Standards development (approximately 80% of total budgeted expenditure in 2024-25).

    o Education and training (15%)

    o Running the business (5%).

These cost structures are depicted in Figure 6.
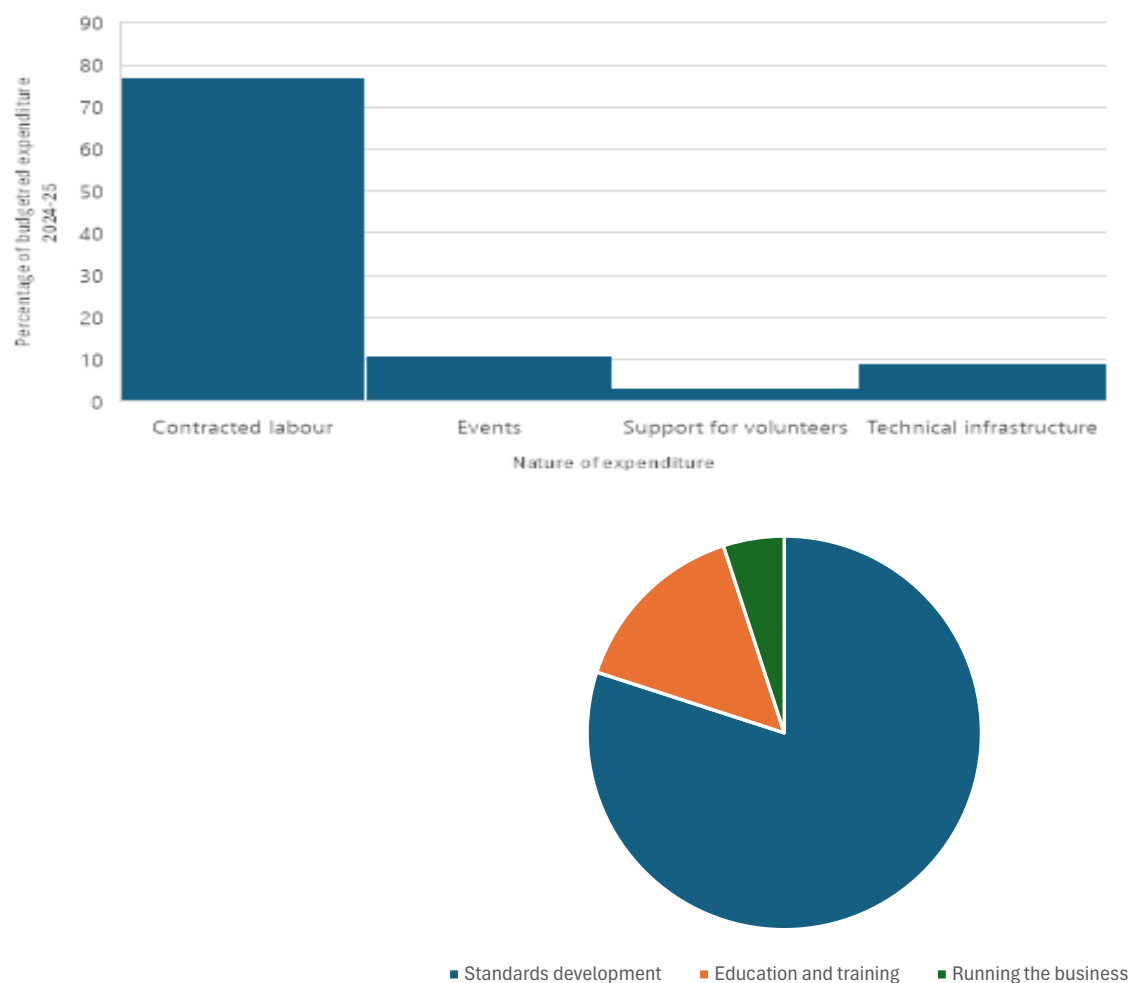
Figure 6 - HL7 Australia 2024-25 expected cost structures, October 2024

2.10. Summary

The above information is summarised into an HL7 Australia business model in Figure 7.

Key partnerships	Key activities	Value propositions	Customer relationships	Customer segments
HL7 International Australian Government Department of Health and Aged Care (DoHAC) Australian Digital Health Agency (ADHA) CSIRO Standards development volunteers Medical Software Industry Association (MSIA) Education and training entities	Providing a portfolio of standards development pathways Making HL7 International standards available in the Australian realm Ensuring Australian requirements and perspectives are built into HL7 International standards Supporting standards developer and implementer communities Maintaining Australian localisations Providing and supporting education and training Providing independent expert advice Providing technical events Providing process support platforms	**Delivering trusted standards** as needed for the exchange, integration, sharing and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. **Providing a learning and supportive community for standards developers and implementers** to deliver an Australian health sector in which everyone can securely access and use the right health data when and where they need it.	**Communities, co-creation and self-service, supported by:** • Outreach • Leveraging market forces • Community-based support and expertise • Evidence, feedback and continuous improvement • Personalisation	Health system policy makers and funders Health software providers Health service providers who in turn enable Australian health consumers and taxpayers to enjoy a connected, high quality health system at the lowest achievable cost.
	Key resources Volunteer & paid labour, governance and operational processes, HL7 IP, infrastructure,		**Channels** Online Face to face	

Cost structure	Revenue streams
Contracted labour Events Support for voluteers Technical infrastructure	Commonwealth government grants Membership fees Sponsorships In-kind contributions Interest

Figure 7 - HL7 Australia business model summary

3. HL7 Australia's operating model

Our operating model is described in terms of business fundamentals and business enablers.

3.1. Business fundamentals

The business fundamentals comprise a set of design principles, our culture and values, our approaches to governance, and the key processes we use.

3.1.1. Design principles

HL7 Australia's operations are based on and compliant with international best practices for standards development.

HL7 International is accredited by the American National Standards Institute (ANSI) and its compliance with ANSI requirements is assessed regularly. The principles underlying these requirements are consistent with those of global standards developers such as the International Organisation for Standardization (ISO), SNOMED International and the World Health Organization (WHO). Accordingly, they are also consistent with those of Australian standards developers such as Standards Australia and the Australian Institute of Health and Welfare (AIHW).

All HL7 International Affiliates, including HL7 Australia, are required to comply with the requirements in the Health Level Seven International Affiliate Agreement, which references the HL7 International Governance and Operations Manual (GOM). While there is scope to localise the GOM (as has been done with HL7 International's FHIR Community Process (FCP) to produce the Australian FHIR Community Process (AFCP), this does not extend to compromising the underlying principles. Australian localisation of the GOM is currently underway.

HL7 Australia's **standards development design principles** are as follows.

Principle:	**Response to a need in the market** HL7 Australia does not decide when to develop a new standard but responds to a request from members, industry or other stakeholders such as policy makers or consumer groups[7].
Rationale:	The development, implementation and life-cycle management of standards involves significant costs and change management to a wide range of players. The need must be clearly established and well-supported by those players.
Implication(s):	HL7 Australia requires evidence of support for new standards.

---

[7]   Wording based on ISO, accessed 24 September 2024 at https://www.iso.org/developing-standards.html.

Principle:	**Based on national and global expert opinion**
	HL7 Australia strives to obtain world class technical, clinical, data, and business expertise in the development of standards.
Rationale:	HL7 standards must be fit for purpose for a 24x7x365, life-critical industry. They must be readily implementable by and reliable in a wide range of health software used in a variety of settings and work in conjunction with other technical and data standards. This demands deep expertise in the standards concerned, the software that will use them, the settings in which they will be used and the business implications of using them.
Implication(s):	HL7 Australia strives to involve the most expert people from relevant organisations and is cognisant of the opportunity costs involved for those organisations.

Principle:	**Developed through a multi-stakeholder process**
	HL7 Australia strives to ensure balanced participation and influence, including by those interests that will be significantly affected by the resulting standard[8].
Rationale:	It may be easier for some (e.g., larger) organisations to participate than others. However, widespread acceptance and implementation of standards depends on their meeting the needs of the market overall, not just selective players.
Implication(s):	HL7 Australia strives to involve the most expert people from relevant organisations and is cognisant of the opportunity costs involved for those organisations.

Principle:	**Developed through transparent, open, and impartial processes**
	HL7 Australia ensures that:
	• Information on its current work programs and proposals is available to all interested parties
	• Participation is available to all on a non- discriminatory basis
	• Its operations are impartial[9].
Rationale:	The principles of consensus (below), transparency, openness and impartiality provide the basis for HL7 standards' authority and widespread acceptance.

---

[8] Based on wording from Standards Australia, accessed 24 September 2024 at https://www.standards.org.au/documents/sg-001-preparing-standards.

[9] Based on wording from Standards Australia, accessed 24 September 2024 at https://www.standards.org.au/documents/sg-001-preparing-standards.

Implication(s):	HL7 maintains infrastructure and processes sufficient to ensure the timely availability of information on its operations, seeks and welcomes participation, and ensures impartial governance and processes via its GOM.

Principle:	**Based on consensus** HL7 Australia's standards are characterised by general agreement, defined as the absence of sustained opposition to substantial issues by any important part of the concerned interests[10]. Note – Consensus need not imply unanimity.
Rationale:	The principles of consensus, transparency, openness and impartiality (above) provide the basis for HL7 standards' authority and widespread acceptance.
Implication(s):	HL7 Australia's standards development processes involve considering the views of all participants and seeking to reconcile any conflicting arguments.

Principle:	**Use of international standards** HL7 Australia bases its standards on international standards as far as possible.
Rationale:	Software providers and some healthcare providers operate across national borders. Unnecessary localisation (i.e., localisation not demanded by differences in need) results in excess costs to the health system and raises barriers to trade.
Implication(s):	Before developing a new standard or modifying an existing one, HL7 Australia assesses evidence that existing standards do not currently meet Australian needs.

HL7 Australia's **community building design principles** are as follows.

Principle:	**Asset-based community development** HL7 Australia seeks to empower its communities by leveraging their existing skills, assets, and capacities rather than imposing conditions and constraints on them.
Rationale:	Our communities comprise our customers and other stakeholders. In their collective standards development and implementation capacities, they are national assets, and HL7 treats them as such.

---

[10]   Based on wording from ISO, as cited by Standards Australia, accessed 24 September 2024 at https://www.standards.org.au/documents/sg-001-preparing-standards.

Our role is to provide the expertise and facilitation required to translate their knowledge into standards.

Implication(s): We authentically share resources and decision-making power with our communities and co-create with them. We articulate issues and develop solutions to them through mutual exchange. We invest in community building.

Principle: **Small market**
HL7 Australia is pragmatic in building and leveraging communities that comprise a relatively small number of experts

Rationale: We recognise that we operate in a relatively small market and that while our pool of expertise is world class (and in several cases world leading), this means that our experts experience multiple demands and that some players can exert excessive influence.

Implication(s): We are 'expert-centric' – we construct our working groups and other communities to balance the demands on our experts and the outcomes we need from them.

We are watchful for conflicts of interest and power imbalances.

Principle: **Community of communities**
HL7 Australia recognises that members of our communities are also members of other, often intersecting, communities. We work with these other communities to optimise our outcomes and experiences, those of our community members, and as far as possible those of other relevant communities.

Rationale: We are cognisant of the competing demands on our community members and of the roles other communities play in optimising the overall health ecosystem.

Implication(s): We identify and maintain good relationships with the organisations maintaining other relevant communities and collaborate with them.

HL7 Australia's **education and training design principles** are as follows.

Principle: **Learner-centred, actionable education and training**
HL7 Australia supports education and training that recognises the knowledge, skills, attitudes, and beliefs that participants bring, and that enables participants to immediately apply their learnings.

Rationale:	The people who need HL7 training are typically busy and already well-qualified. The HL7 community can learn from them, and vice versa.
Implication(s):	We seek evidence of training needs and the profiling of potential participants. We assure the quality of HL7 content that we support.

Principle:	**Partnership** We work in partnership with experts in education and training.
Rationale:	Our core skills are in standards development. We do not dilute our capabilities by over-investing in allied areas that are already well-equipped.
Implication(s):	We are willing to partner with all qualified education and training entities on a non-exclusive basis but protect our brand via due diligence and evaluation.

3.1.2. Culture and values

HL7 Australia's values are:

- We respect and promote the expertise and commitment of our members.

- We build communities of interest and contribute positively to dialogue amongst stakeholders.

- We are independent, open, inclusive, transparent, consensus-building and ethical.

- We continuously seek improvement through the pursuit of contemporary best practice in standardisation and corporate governance.

Both within our organisation and our communities, we strive for a culture of meaningful cooperation and collaboration amongst sometimes competing interests, to optimise the public good.

3.1.2.1. Code of Conduct

HL7 Australia adopts the HL7 International Code of Conduct.

As such, we are "committed to providing an open community that welcomes all participants and provides them with a pathway to understand and effectively engage with the HL7/FHIR communities. This Code of Conduct applies when participating in HL7 or FHIR activities or meetings, or while representing HL7 at in-person or virtual meetings. It also applies when using HL7/FHIR community communication and collaboration spaces such as Zulip, HL7 List Serves, Confluence, JIRA, etc.

By adopting this Code of Conduct, participants pledge to respect all people who contribute to the activities of HL7/FHIR communities and to commit themselves to fairly and consistently applying these principles.

HL7 and its participants are committed to a discrimination- and harassment-free environment for everyone, regardless of level of experience, professional background, gender, gender identity and expression, sexual orientation, disability, personal appearance, body size, race, ethnicity, age, religion, or nationality. Examples of unacceptable behaviour by participants include:

- The use of sexualized language or imagery.

- Personal attacks.

- Trolling or using insulting/derogatory/demeaning comments.

- Public or private disrespect or harassment.

- Publishing other's private information, such as physical or electronic addresses, without explicit permission.

- Any other conduct deemed unethical or unprofessional"[11]

HL7/FHIR Community participants have the right and responsibility to report any instance of harassment, abuse or otherwise unacceptable behaviour that is not aligned with this Code of Conduct to the HL7 Australia Board. The Board:

- May choose to remove, edit, or reject any contributions associated with such instances.

- Is obliged to maintain confidentiality about the individual reporting such an incident.

Further, the Board may recommend to the HL7 International Executive Committee that an HL7/FHIR Community participant be banned temporarily or permanently for behaviours that they deem inappropriate, threatening, offensive, or harmful. The decision of the Executive Committee in such instances shall be final.

3.1.3. Governance

HL7 Australia's governance is ultimately controlled by its Constitution, which is available here. Highlights from the Constitution include:

- HL7 Australia Ltd is a public company limited by guarantee. Our membership is open to any individual or organisation who supports the objects and values of the Company.

- We currently have 5 classes of membership, with differing rights: Benefactor Members, Gold Members, Silver Members, Individual members, and Student Members.

- We currently have 106 members, distributed across these classes per Figure 8.

---

[11]   HL7 International, nd, *Code of Conduct*, accessed 25 September 2025 at https://www.hl7.org/legal/code-of-conduct.cfm.
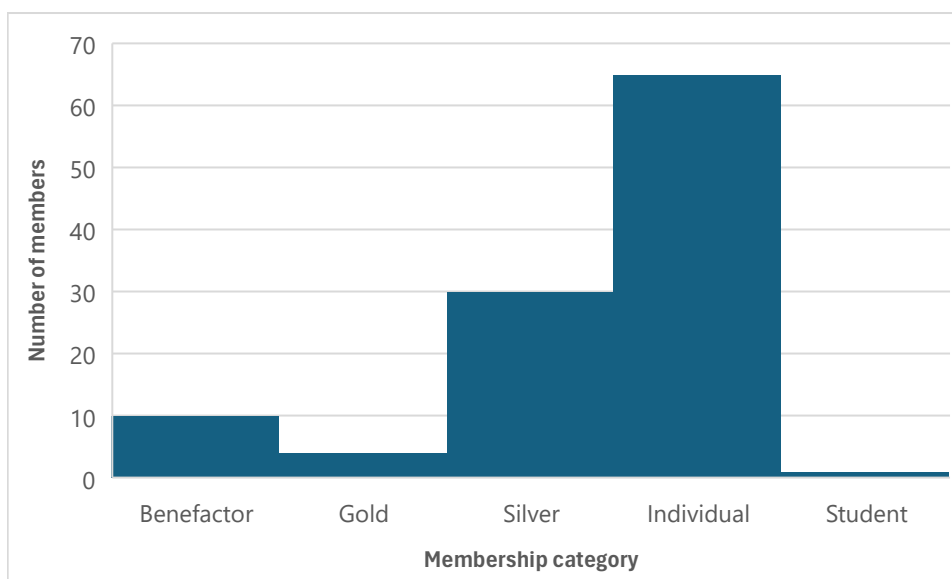
Figure 8 - Membership by class of membership, October 2024

- The HL7 Australia Board comprises eight people and is responsible for managing and directing the activities of the Company to achieve its objects. The Board is empowered to make by-laws as necessary for the proper conduct, control and management of the company.

- Our objects are to:

  - facilitate adoption of digital health in Australia by promoting effective use of standards and products developed and maintained by the Company and by HL7 International, and supporting the enhancement and maintenance of these standards and products to meet local needs

  - work in Australia and overseas with HL7 International and others to support and promote interoperability of health information systems through effective standardisation

  - promote the widespread, consistent use of standards developed by the Company and HL7 International to facilitate effective interoperability and re-use of health information across the Australian health sector

  - be recognised as the principal body in Australia promoting the development, understanding and adoption of standards developed by the Company and HL7 International, and providing for certification related to products and services of the Company and HL7 International

  - be a respected and influential body both in Australia and internationally in the health information industry

  - do all such other lawful things as are incidental or conducive to attaining any or all the above objects.

3.1.3.1. Australian FHIR Management Framework (AFMF)

The AFMF is a governance framework for the HL7 FHIR standard in Australia. It is available here. It comprises a set of HL7 endorsed processes for developing FHIR standards artefacts in Australia and establishes the Australian FHIR Coordination Committee (AFCC).

Importantly, the AFMF ensures a flexible range of FHIR standards development pathways. These can be summarised as:

- Via the HL7 International FHIR Community Process, for stakeholders seeking an internationally accepted standard.

- Via the HL7 Australia FHIR Working Group, for stakeholders seeking the assurance and acceptance of a standard that has been developed via the full HL7 Australia process.

- Via the Australian FHIR Community Process (AFCP) for stakeholders seeking the assurance and acceptance of a standard that has been developed in accordance with the international and Australian FHIR standards development principles but seeking more flexibility about their application.

- Via an HL7 FHIR Accelerator for stakeholders with sufficient national impetus and resourcing to build its own brand and momentum and fast track the development of standards but remain within the HL7 AU governance frameworks. Accelerators may utilise either the FHIR Working Group or the AFCP.

- Independent development, for stakeholders who are not seeking reuse of their standards by others.

3.1.4. Key processes

HL7 Australia's key processes for standards development are described in the Governance and Operations Manual (GOM-AU, currently under development). They are:

- Election of Board members

- Membership (supplementary to the constitution)

- Appointment of HL7 Australia members eligible to vote in HL7 International ballots

- Establishment of work groups

- Standards development (covered by the AFMF in the case of FHIR standards)

- Intellectual Property

- Balloting

- Publication.

3.2. Business enablers

Our business enablers comprise our organisation's design, our product and service designs, our data, information and knowledge, our IT architecture and capabilities, and our risk/opportunity management.

3.2.1. Organisation design

As with all organisations, HL7 Australia's current organisational structure is constrained by its available resources. We are currently heavily dependent on our directors not just governing but also managing and operating the organisation, by necessity rather than choice.
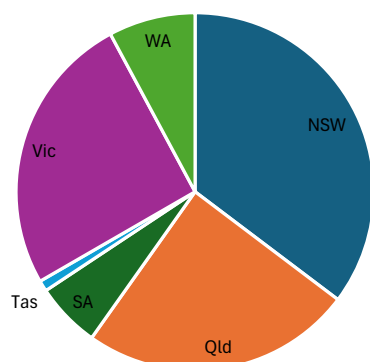
Our organisational chart is depicted in Figure 9.
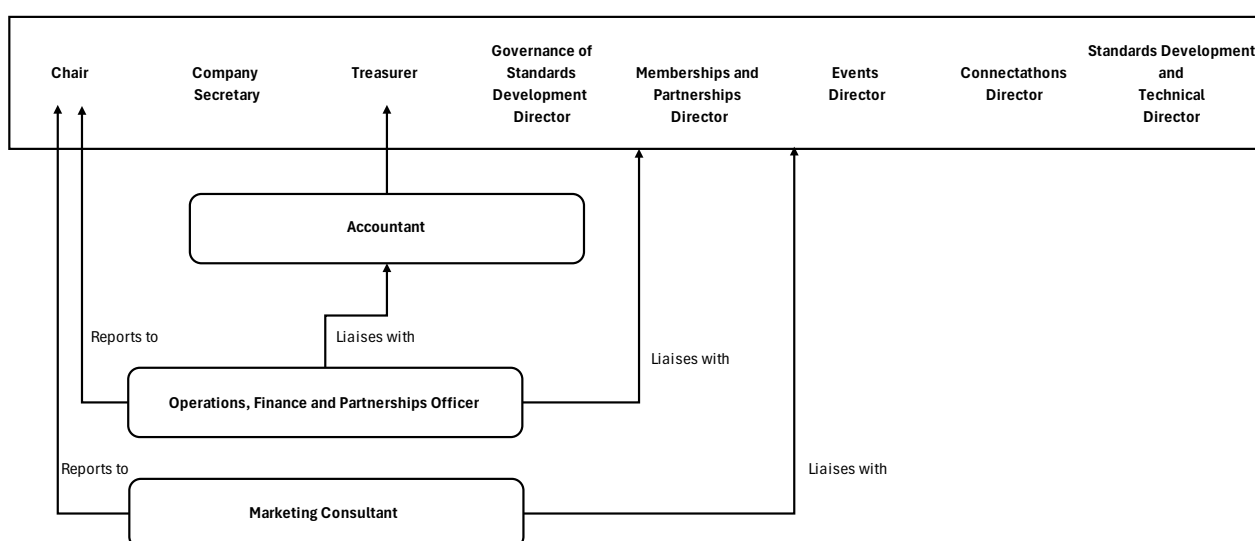
*Figure 9 - HL7 Australia organisation chart, December 2024*

Other views of our organisation include:

- Spatial: Our membership distribution is depicted spatially in Figure 10.

Figure 10 - HL7 Australia spatial distribution, October 2024

- Nature of organisational members: Our organisational membership distribution is depicted in Figure 11.

■ Vendor   ■ Government   ■ Consulting   ■ Private health provider   ■ Clinical college
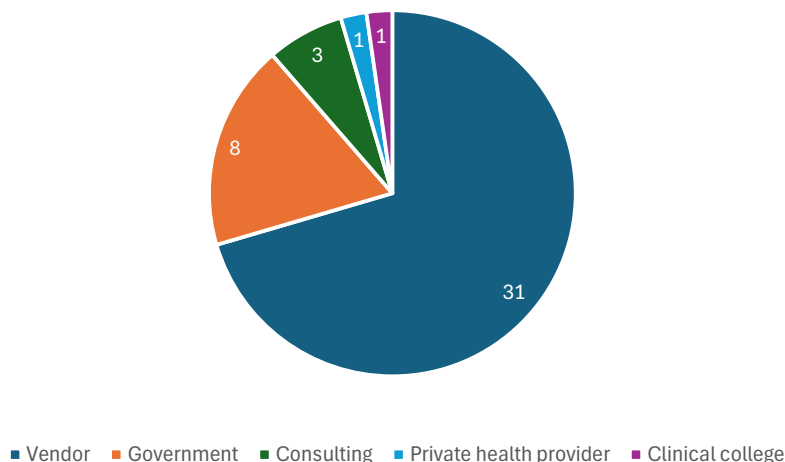
Figure 11 - HL7 Australia sectoral distribution, October 2024

3.2.2.   Product and service design

Product design can be described as synthesising users' needs with business goals to create consistently successful products, while service design planning and organising resources to improve, directly, agents' experiences and, indirectly, customers' experiences[12].

HL7 Australia's current products are:

- **Standards** in various forms. Their design is determined through global best practices and their form is dictated by HL7 International, again in accordance with the international best practices forged by ANSI and ISO.

- **Training** artefacts. Their design is predicated on explicit needs analysis and their form is dictated primarily by our partners in education and training delivery, who hold core expertise that we do not.

HL7 Australia's current services are:

- **Standards development and maintenance.** HL7 Australia supports a total standards lifecycle incorporating several stages, as depicted in Figure 12.

---

[12]   Hale T, 9 December 2020, Should You Be Focusing on Product Design or Service Design?, Built In, accessed 26 September 2024 at https://builtin.com/articles/product-or-service-design.
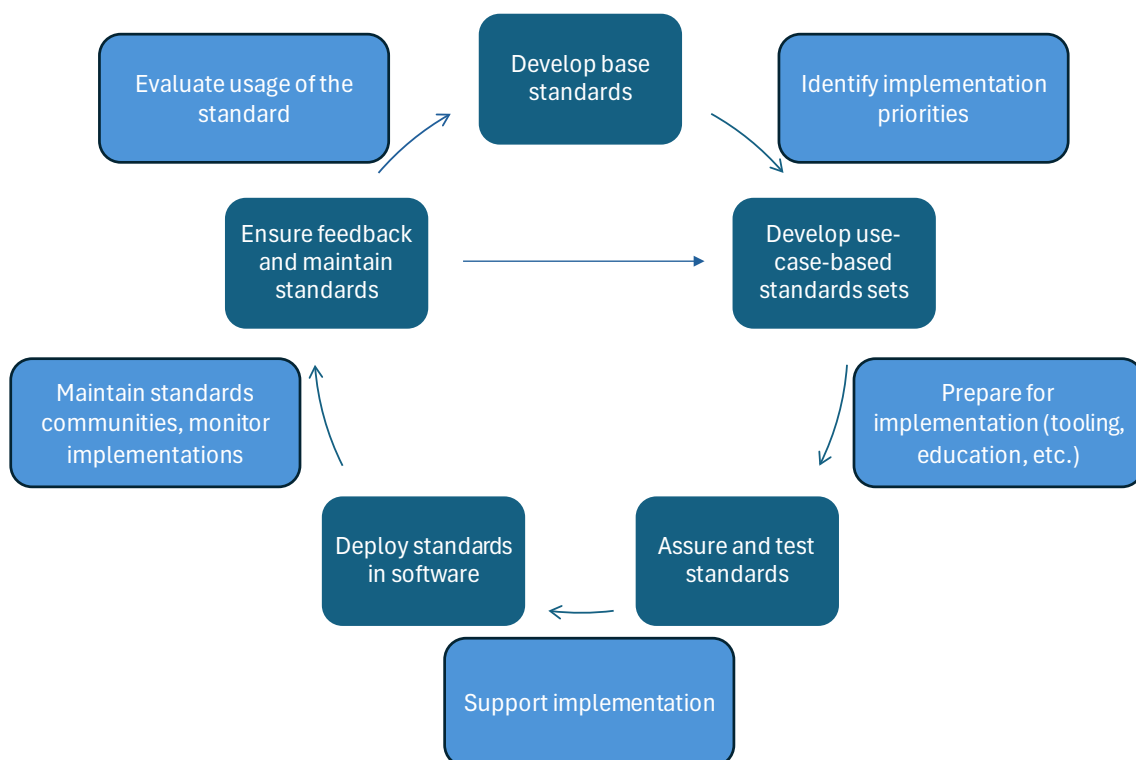
Figure 12 - Standards development lifecycle (based on Schulz, Stegwee and Chronaki[13])

The inner (dark blue) cycle comprises the core standards life cycle – develop, test, deploy, maintain. The outer (light blue) cycle depicts essential activities that enable this life cycle but cannot be taken for granted.

A core feature of the lifecycle that is often taken for granted by those unfamiliar with standards fundamentals is the feedback and maintenance stage.

HL7 standards generally have long lives. They are designed to accommodate contextual and requirement changes, since frequent fundamental changes would result in an extremely unstable health software (and thereby health service delivery) environment. For example, HL7 V2 standards remain in widespread use decades after their development and have gone through multiple maintenance cycles. The core standard is now at V2.9, and HL7 International devotes substantial effort and resources to the continued maintenance of V2. HL7 Australia is currently re-establishing a local Orders and Observations (V2) work group in response to member requests.

---

13 Schulz S, Stegwee R and Chronaki C, 2019, 'Standards in Healthcare Data', Chapter 3 in Kubben P, Dumontier M and Dekker A, 2019, Fundamentals of Clinical Data Science, Springer Open, accessed 2 November 2024 at https://www.researchgate.net/publication/329873031_The_EU's_General_Data_Protection_Regulation_GDPR_in_a_Research_Context.

Even HL7 FHIR, which only emerged a decade ago, is now at R4.

Maintenance is one of the critical risks facing a standards-based national digital health strategy. It is easy for funders and policy makers to envisage standards development projects and over-invest in the first three or four stages of the lifecycle (dark blue boxes) relative to the fifth.

The FHIR standards development pathways described in section 4.1.3.1 all add to the stock of standards assets. Maintenance of this rapidly growing stock falls to HL7 Australia. And while FHIR is highlighted in Figure 13 since it is critical to the national agenda, V2 maintenance cannot be overlooked as the health sector also depends on it.
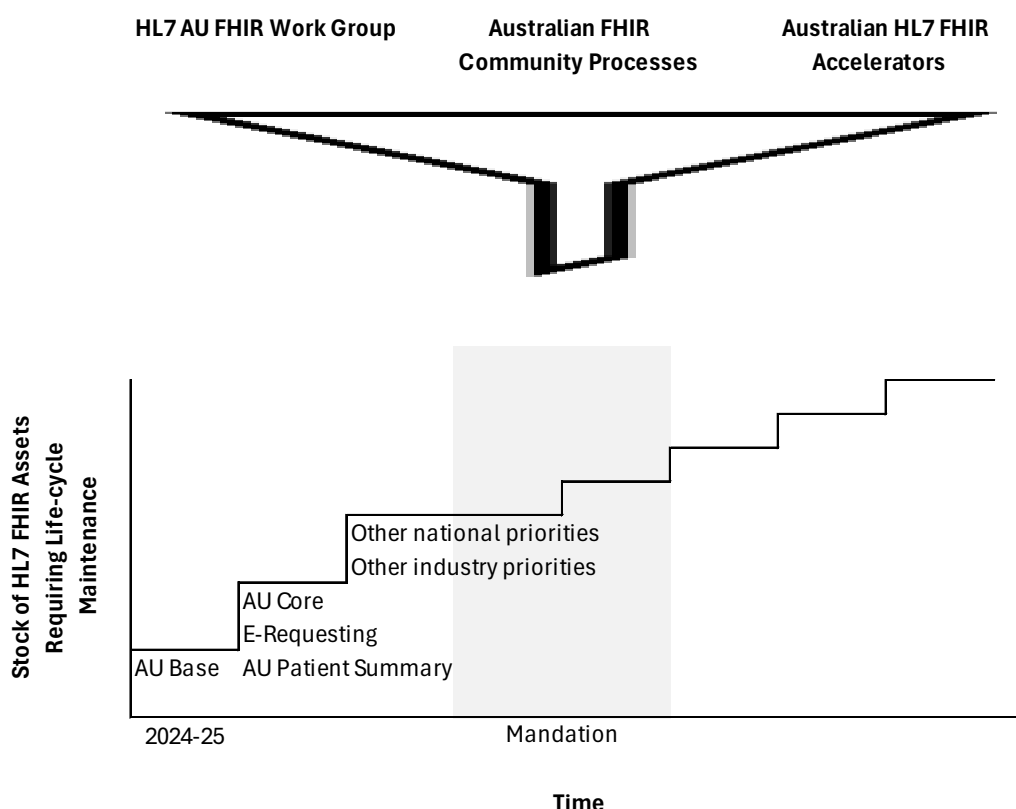
Figure 13 - Increasing HL7 FHIR standards maintenance load

[Note: 'Mandation' in the above diagram refers to the enactment of legislation recently introduced into the Australian parliament in November 2024 and which is likely to provide a significant driver for standardisation.]

- **Member services.** These are primarily developed around engagement in standards development processes. Membership fees have recently been reduced to encourage higher membership numbers. Membership benefits include:
  - o early access to standards
  - o voting rights in standards development, and thereby the ability to influence the content of standards important to the member's business

- o technical services (e.g., FHIR conformance services and sample data)

- o priority access to standards development events such as Connectathons, via early access to ticketing

- o the ability to run for leadership positions and thereby influence the organisation (in the case of Board roles) or the nature of standards development (in the case of co-chairs)

- o discounts on paid meetings/events

- o access to an expert group of technical peers both nationally and internationally and recognition as part of an expert community,

- o the reputational benefits of being part of the collective striving to make Australia's health sector interoperable.

Additional benefits for organisational members include (depending on level of membership taken)

- o logo showcasing on the HL7 Aus Website

- o special recognition in HL7 communications and promotional materials

- o organisational profiling and opportunities to promote implementation case studies

- o a forum to showcase potential candidates for future standardisation.

- **Training.** HL7 Australia has been directly involved in the provision of FHIR training (with partners), though this is coming to an end with our ongoing role in training to be determined.

- **Event provision and management**. HL7 Australia currently offers three Connectathons per year and an annual Symposium and provides a presence at selected other digital health events.

- Basic **information services** including newsletters, currently offered twice per year, webinars and updates.

- Basic **member support** in terms of answering inquiries and resolving issues.

3.2.3. Knowledge, information and data (KDI)

HL7 Australia is, at its core, a KDI business. Our:

- **Knowledge** becomes encapsulated in standards documentation and the collaboration tools (e.g., Confluence) that supports their development, but also resides in the collective minds of our members and other community members. The latter emphasises HL7's current dependence on member retention and the continuity of our communities.

- **Information** holdings comprise the intelligence we assimilate about our members and other stakeholders, about our business, and about our operating context; and the information we access from HL7 International such as their strategies, events, international work-in-progress, and how to navigate their complex world. Again, these are primarily stored in the minds of our directors and communities.

- We capture and store basic **data** from our members and other stakeholders, and about our activities, primarily using them for notifying interested parties about standards development opportunities including events, and for other communications and marketing. This data is difficult to access and is not routinely assimilated and analysed.

3.2.3.1. IP

HL7 International's intellectual property rights extend to any HL7 material that has passed ballot. This includes localisations of HL7 Protocol Specifications by International Affiliates (such as HL7 Australia) that have passed ballot at the Affiliate level.

HL7 International grants to HL7 Australia a non-transferable, royalty-free, non-exclusive license and right to use HL7 Protocol Specifications, including the right to distribute and provide access to the HL7 Protocol Specifications to HL7 Australia members in good standing[14].

3.2.3.2. Copyright

All HL7 Protocol Specifications[15] are protected under the provisions of US and International copyright law. In this respect, HL7 International recognises that the HL7 Protocol Specifications are the work products of HL7 members and acts as the collective representative the member's interests.

All members of HL7 have usage rights to the HL7 Protocol Specifications as authorised by the HL7 member agreements and International Affiliate agreements.

HL7 International's objective in asserting and enforcing copyrights in the HL7 Protocol Specifications is to "assure that the public and end-users of the HL7 Protocol

---

[14] HL7 International, 25 October 2023, Health Level Seven International Affiliate Agreement, accessed 30 September 2024 at https://confluence.hl7.org/display/IC/Master+Affiliate+Agreement?preview=/77367025/239212185/HL7 2024-25 Affiliate Agreement.pdf.

[15] Protocol specifications encompass the following work products developed and supported by HL7: all Versions of the HL7 messaging standard; the Clinical Document Architecture (CDA); Arden Syntax; CCOW specification; Service Oriented Architecture (SOA) standards; any other normative standards subsequently released by HL7; various functional models, implementation guides, Fast Healthcare Interoperability Resources (FHIR®), and Implementation Technology Specifications (ITS); the Reference Information Model (RIM); the Access database; and those informative documents initiated and balloted by the various Work Groups.

Specifications may rely upon HL7 to be an official source of the most current and accurate versions of the HL7 Protocol Specifications[16]".

All those contributing to the HL7 Protocol Specifications grant a free, irrevocable license to HL7 to:

- Incorporate any contributions and subsequent modifications thereof in the creation or maintenance of HL7 Protocol Specifications.

- Copyright in HL7's name for any Protocol Specification even though it may include portions of said contributions.

- Permit others, at HL7's sole discretion, to reproduce in whole or in part the resulting Protocol Specifications.

Australian localisations of HL7 Protocol Specifications are undertaken under copyright jointly owned by HL7International and the HL7 Australia.

3.2.4. IT

HL7 Australia has a relatively complex IT infrastructure for an organisation of its size, resulting chiefly from (i) the relatively complex demands associated with standards development and balloting, (ii) the current need to harness services in kind for hosting infrastructure, and (iii) the use of HL7 International infrastructure.

HL7 Australia maintains three main standards-related environments hosted across four deployment zones:

1. A **development** environment for current versions of standards content, including content for building Implementation Guides (IGs) and Connectathon and yet not approved versions.

2. A **reference** environment for approved (balloted) versions of content.

3. A **training** environment hosting content for training purposes

We also operate a range of business applications including a basic CRM system, accounting and finance, Google applications, and others.

3.2.5. Risk/opportunity management

Risk and opportunity management are conducted at the Board level within HL7 Australia, on annual and ad hoc bases.

Our major current opportunity is a funded, national (Commonwealth, States, and Territories) digital health agenda for health data exchange based on the HL7 FHIR

---

[16] HL7 International, 15 December 2016, HL7® Governance and Operations Manual, accessed 30 September 2024 at https://www.hl7.org/documentcenter/public/wg/gno/GOM%202016%5BAs%20Revised%2016 1215%20Final%5D.pdf.

standard associated FHIR capabilities, and recognition by the agencies concerned that a sustainable and active HL7 Australia is an essential partner.

The major risks to our operating model are currently:

- Dependency on Government funding, which can change rapidly following a change of government or policy and can result in imbalances of interest.

- Excessive reliance on a volunteer Board to both govern and manage a complex, distributed organisation.

- A patchwork IT infrastructure that, whilst reliable, requires excessive manual intervention and has functional inadequacies.

- A relatively small national pool of standards development expertise to draw upon to meet an aggressive digital health agenda.

3.3.   Summary

The above information is summarised into an HL7 Australia operating model in Figures 14 and 15.

Service design principles	Culture and values
Responsive to market needs **Based on expert opinion** **Developed through multi-stakeholder processes** **Transparent, open, and impartial** **Based on consensus** **Using international standards where possible** **Asset-based community development** **Cognisant of our small market** **Part of a community of communities** **Learner-centred, actionable education and training** **Working in partnership**	**Respect for and promotion of the expertise and commitment of our members** **Building communities of interest and contributing positively to dialogue amongst stakeholders** **Open, inclusive, transparent, consensus-building, ethical** **Continuously seeking improvement**
Governance	**Key processes**
Governed *and managed* by a Board of Directors **Guided by our Constitution, the HL7 International Governance and Operations Manual and our International Affiliate Agreement** **Guiding standards development via HL7 Working Group protocols and the Australian FHIR Management Framework**	**Election of Board members** **Establishment of working and subsidiary groups** **Standards development, balloting and publication**

*(Left side vertical label: **Business fundamentals**)*

Figure 14 - HL7 Australia operating model summary: Business fundamentals

Business enablers

Organisation design	Product/service design
Functionally, a fusion of governance and management	Products - Standards and training artefacts
Spatially and sectorally more concentrated than the market	Services - Member and basic information services, event provision and management, basic member support

Knowledge, information & data	IT
Knowledge encapsulated in standards and standards development tooling, but also in the collective minds of our communities	A complex array of stadards development tooling hosted by multiple parties and comprising multiple environments.
Information about our operating contexts and strategic directions in standardisation, largely in the collective minds of our communities	A variety of loosely integrated business and member support tools.
Basic data captured about our members, stakeholders and activities, largely used for operational purposes and difficult to access	

Risk/opportunity management

Managed by the Board

Major current opportunity: A funded, national (Commonwealth, States, and Territories) digital health agenda for health data exchange based on the HL7 FHIR standard associated FHIR capabilities, and recognition by the agencies concerned that a sustainable and active HL7 Australia is an essential partner.

Major current risks: Excessive reliance on a volunteer Board to both govern and manage a complex, distributed organisation

A patchwork IT infrastructure

A relatively small national pool of standards development expertise to draw upon to meet an aggressive digital health agenda

Figure 15 - HL7 Australia operating model summary: Business enablers

4.   Maturation of the business and operating models

While our business model should evolve, there are significant gaps in HL7 Australia's operating model that threaten our ability to deliver both our business model and strategic priorities. Target states for both are described below.

4.1.   Target business model

HL7 Australia's **customer segmentation** needs to extend beyond its current one-dimensional model (policymakers and finders, health software providers and health service providers) to a second dimension that incorporates sectors, as depicted in Figure 16.

Role/Sector	State and Territory provided Healthcare	Private sector provided Healthcare	State and Territory provided Aged Care	Private sector provided Aged Care	State and Territory provided NDIS	Private sector provided NDIS	State and Territory provided Social Care	Private sector provided Social Care
Policy makers and funders	√	√	√	√	√	√	√	√
Health software providers	√	√	√	√	√	√	√	√
Health service providers	√	√	√	√	√	√	√	√

Figure 16 - HL7 Australia future customer segmentation matrix

We must increase our membership base significantly. *How many MSIA members are there? Aged care software providers? What is our possible?*

While our generic set of **partnerships** (HL7 International, DoHAC/ADHA/CSIRO/MSIA/ educators-trainers) will persist, we need to expand into the aged care, disability, and social care domains to ensure the architectural underpinnings of a truly integrated health, aged and social care sector that can holistically improve health outcomes in this country. We may also need to work more closely with implementation science experts on our adoption agenda.

HL7 Australia's **resource** base could be supplemented by the addition of philanthropy (requiring HL7 Australia to become a registered charity, which is compatible with our objects), but primarily needs:

- Redistribution in terms of the relative contributions of roles and sectors. For example, membership revenue can be considerably expanded by:
    - first enhancing our footprint (number of members), initially by focused and persistent marketing, then enhanced as mandation of standards adoption provides software vendors with an existential reason to be part of standards development processes

> o then by significantly improving our member value proposition, enabling fee increases.

- Longer term certainty to enable the organisation to deploy required infrastructure, perform strategically rather than simply opportunistically, and not burn out Board members and technical experts.

In terms of **customer journey**, our primary focus is, naturally, on standards development. However, adoption and appropriate implementation are equally if not more important to the achievement of our aspirations for health system interoperability. Indeed, our first four objects are explicitly about adoption, not just development. We need to be leveraging our communities more to this end, while being mindful that there are limits to their goodwill.

4.2. Target operating model

The major changes required to our operating model over the near term are associated with our business enablers:

- Our **organisation design** needs to move to greater use of paid labour, enabled by higher cash (as opposed to in-find) revenue.

  This must involve more agility in matching labour to our needs and may also involve some degree of executive directorships wherein directors are at least partly remunerated for their managerial contributions.

- Our **service** range must support additional revenue raising, with options including:

  - organisational sponsorships

  - paying events. While there are many benefits to standards development events remaining free of charge to participants, via sponsorship, the annual symposium could be turned into a revenue raising event

  - a revenue raising education and training role

  - enhanced members services that offer greater value for more money.

- This flows into the need to do better at harvesting **information and knowledge** from our communities and the data we capture, enabling us to:

  - provide greater personalisation in our communications, marketing, community building, and events

  - attract revenue for access to our information and knowledge

  - manage the continuity and succession of our experts.

- Our **IT** services must also be significantly enhanced to reduce the load on our expert volunteers and staff, provide considerably better services to members, and depict a valued and professional HL7 brand in Australia.

4.3.   Summary

This is summarised into target business and operating models below. The text in red designates either enhancements or a greater focus on elements of the existing models.

Key partnerships	Key activities	Value propositions	Customer relationships	Customer segments
HL7 International Australian Government Department of Health and Aged Care (DoHAC) Australian Digital Health Agency (ADHA) CSIRO Other key policy, funding, advocacy and influencing agencies, including in the private sector State and Territory health and wellbeing agencies Standards development volunteers Medical Software Industry Association (MSIA) Education and training entities	Providing and promoting a portfolio of standards development pathways Making HL7 International standards available in the Australian realm Ensuring Australian requirements and perspectives are built into HL7 International standards Supporting standards developer and implementer communities Maintaining Australian localisations Providing and supporting education and training Providing independent expert advice Providing technical events Providing process and member support platforms	Delivering trusted standards as needed for the exchange, integration, sharing and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. Providing a learning and supportive community for standards developers and implementers to deliver an Australian health sector in which everyone can securely access and use the right health data when and where they need it.	Communities, co-creation and self-service, supported by: • Outreach • Leveraging market forces • Community-based support and expertise • Evidence, feedback and continuous improvement • Personalisation	Health, aged, disability, and social care policy makers, funders, advocates, and influencers Health, aged, disability, and social care software providers Health, aged, disability, and social care service providers who in turn enable Australian health consumers and taxpayers to enjoy a connected, high quality health system at the lowest achievable cost cross-segmented at finer levels to highlight and personalise for lesser serviced domains such as aged care and allied health.
	Key resources Volunteer & paid labour, governance and operational processes, HL7 IP, infrastructure, goodwill		**Channels** Online multi-channel Face to face	

Cost structure	Revenue streams
Contracted and/or employed labour Events Support for voluteers Technical infrastructure	Commonwealth government grants Membership fees Sponsorships In-kind contributions Interest Philanthropy

Figure 17 - HL7 Australia target business model summary

Business fundamentals

Service design principles	Culture and values
Responsive to market needs Based on expert opinion Developed through multi-stakeholder processes Transparent, open, and impartial Based on consensus Using international standards where possible Asset-based community development Cognisant of our small market Part of a community of communities Learner-centred, actionable education and training Working in partnership	Respect for and promotion of the expertise and commitment of our members Building communities of interest and contributing positively to dialogue amongst stakeholders Open, inclusive, transparent, consensus-building, ethical Continuously seeking improvement
Governance	**Key processes**
Greater separation of governance and management Guided by our Constitution, the HL7 Australia Governance and Operations Manual and our International Affiliate Agreement Guiding standards development via HL7 Working Group protocols and the Australian FHIR Management Framework	Election of Board members Establishment of working and subsidiary groups Standards development, balloting and publication

Figure 18 - HL7 Australia target operating model summary: Business fundamentals

Organisation design	Product/service design
Clear lines of responsibility **Spatially and sectorally more representative of the market**	**Products - Standards and training artefacts** **Services - Improved member and information services, event provision and management, enhanced member support** **Greater clarity regarding our training role**
Knowledge, information & data	IT
Knowledge encapsulated in standards and standards development tooling, but also in the collective minds of our communities. More focus on knowledge translation **Information about our operating contexts and strategic directions in standardisation, largely in the collective minds of our communities. More focus on information dissemination** **Data captured about our members, stakeholders and activities is analysed and used for continuous improvement**	**A more integrated business, data and system architecture** **Fit for purpose business and member support tools.**

(Left margin label: Business enablers)

Risk/opportunity management

Managed by the Board

Major current opportunity: A funded, national (Commonwealth, States, and Territories) digital health agenda for health data exchange based on the HL7 FHIR standard associated FHIR capabilities, and recognition by the agencies concerned that a sustainable and active HL7 Australia is an essential partner.

Major current risks: **Lower** reliance on a volunteer Board to both govern and manage a complex, distributed organisation

A relatively small national pool of standards development expertise to draw upon to meet an aggressive digital health agenda

Figure 19 - HL7 Australia target operating model summary: Business enablers

4.4. Resourcing implications

There are significant implications associated with maturing HL7 Australia's business and operating models to simultaneously support upscaling of the nation's standards development, adoption and implementation capabilities, provide enhanced services to members and other stakeholders, and assure the organisation's long-term sustainability.

There are two key resourcing issues:

1. Our current level of resourcing will not sustain the current high levels of activity, let alone upscaling standards development from here and extending into more adoption and implementation support. Our directors do not have the bandwidth to continue and expand their managerial interventions, and these also detract from the organisation's ability to govern strategically. Our thin paid labour supply can be made more fit for our current purposes but leave us with little ability to respond to new or evolving demands.

    We must achieve a more sustainable resourcing base for the next three to five years.

2. We cannot continue to rely on government grants as our main source of income.

    Our current reliance will diminish as mandation of standards adoption, the benefits flowing from infrastructure improvement, and the establishment of new/enhanced services enable:

    • The generation of substantially higher membership/subscription revenue
    • Growing significance of the HL7 brand, in turn enabling revenue to be generated from it

    However, a level of grant funding in perpetuity should be expected, as markets always underinvest in public goods and governments pick up the slack[17]. This set of changes is depicted below.

---

[17] This is why terminology and data standards are largely government funded, through ADHA/CSIRO and AIHW respectively, public research funding is so important, etc.
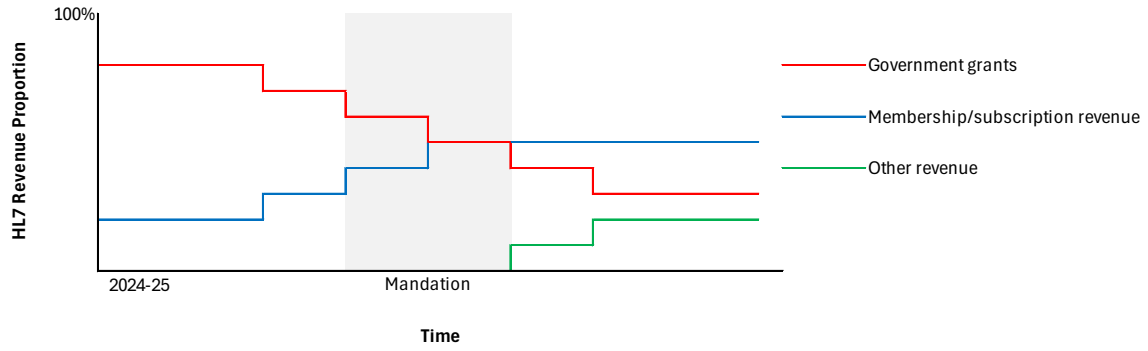
Figure 20 - HL7 Australia revenue mix modelling