

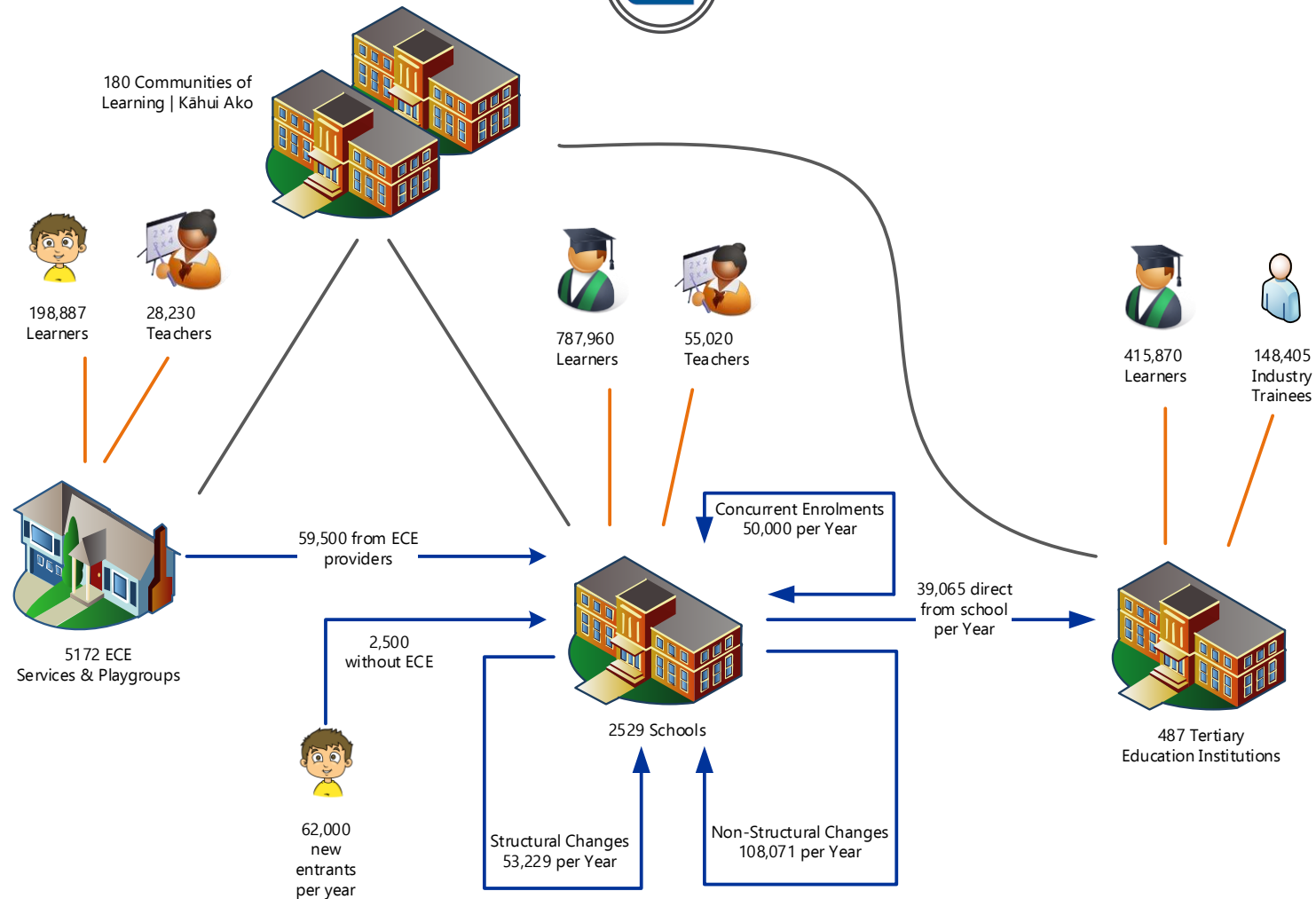
Locale Status Presentations



New Zealand

STUART MCGRIGOR & MARTIN ROTHBAUM
NZ MINISTRY OF EDUCATION

NZ Education Sector Overview



The case for change



Māori are 22% less likely to achieve NCEA level 2 than other students



By 2043, 39% of NZ's population will live in Auckland



2,500 more teaching spaces will be needed by 2020

Nearly half of all eligible schools still need to be connected to Kāhui Ako



demographic changes challenge current delivery models

system settings are provider-centric not learner-centric

high performing but significant disparities

information is incomplete and inaccessible

In 2015, 24% of Māori school leavers had no formal qualification



decision making is decentralised and inconsistent

some good practice – but isolated and not scalable

It costs \$0.75 billion each year to maintain and upgrade the school property portfolio



significant reforms underway need enabling technology



The Big Problem



- **EVERYTHING IS DECENTRALISED**
- **LEARNERS MOVE BETWEEN PROVIDERS**
- **LEARNER RECORDS GET LEFT BEHIND**
- **TRANSIENT LEARNERS ARE HIT TWICE**

Learners move between schools



- 59,500/yr arrive at school from ECE
- 2,500/yr arrive at school without any ECE
- 160,000/yr change school
 - ~53,000 – structural changes
 - ~108,000 – ad hoc
- 50,000/yr are co-enrolled at multiple providers
- 40,000/yr direct from School to Tertiary

Learner records get left behind



- 60,000 new entrants – no records from ECE
- 53,000 move to next school – minimal records
- 108,000 change schools – ad hoc records at best
- 50,000 co-enrolment – ad hoc (or no) records

Transient Learners



Learner Transience (2017)

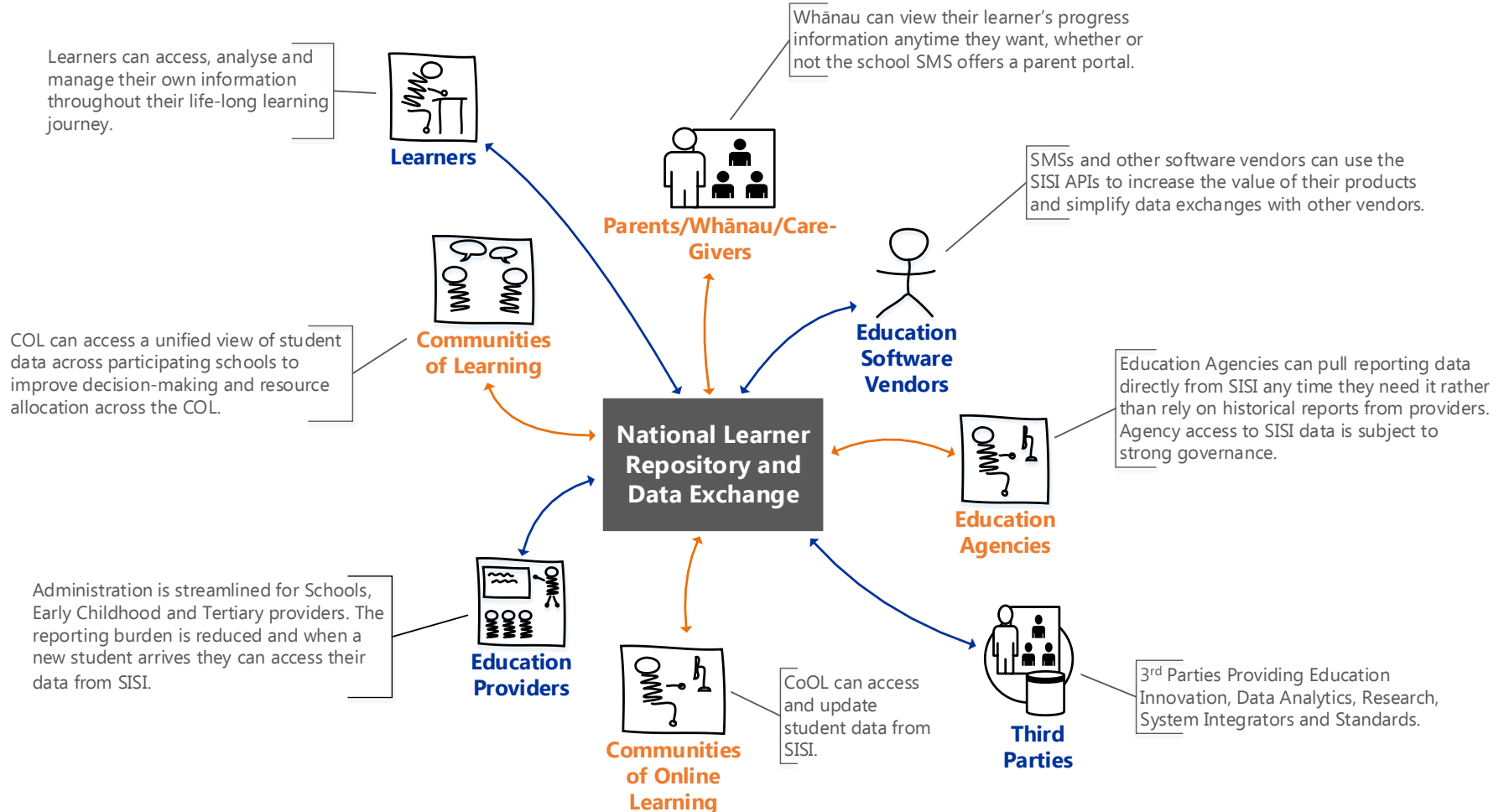
- ~3,700 move twice or more per year
 - ~3,250 - moved twice
 - ~370 – moved 3 times
 - ~80 – moved 4 or more times

The Solution

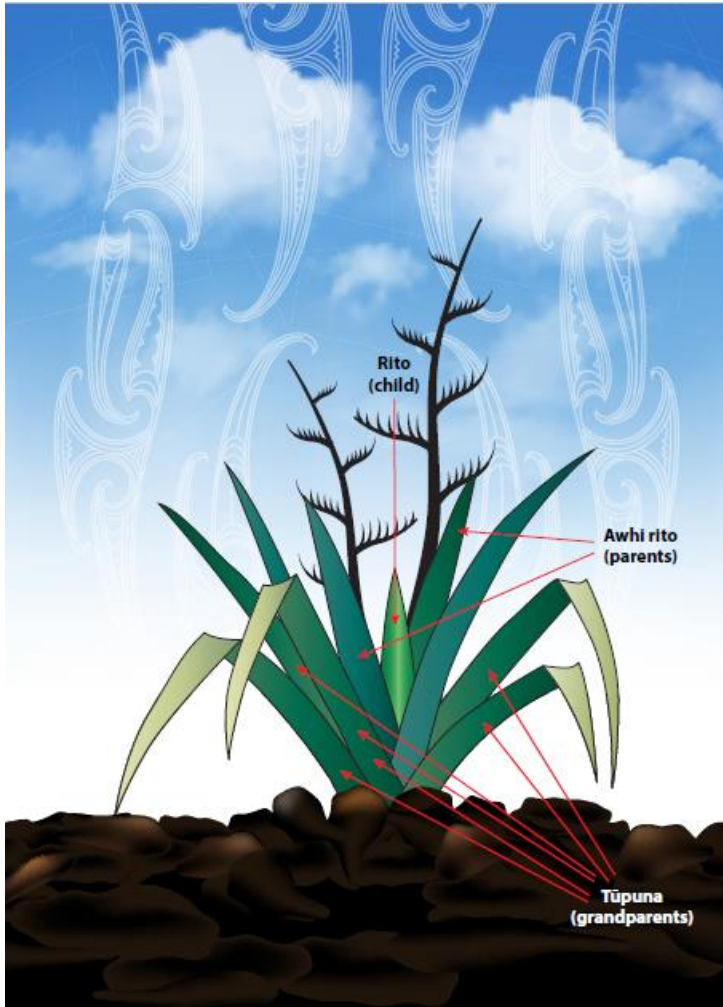


- **NATIONAL LEARNER REPOSITORY & DATA EXCHANGE**
- **TE RITO**
- **A LITTLE PROBLEM**
- **EARLY STAGE ROLLOUTS**

National Learner Repository & Data Exchange



Introducing Te Rito



*Hutia te rito o te harakeke,
kei whea te komako e kō?*

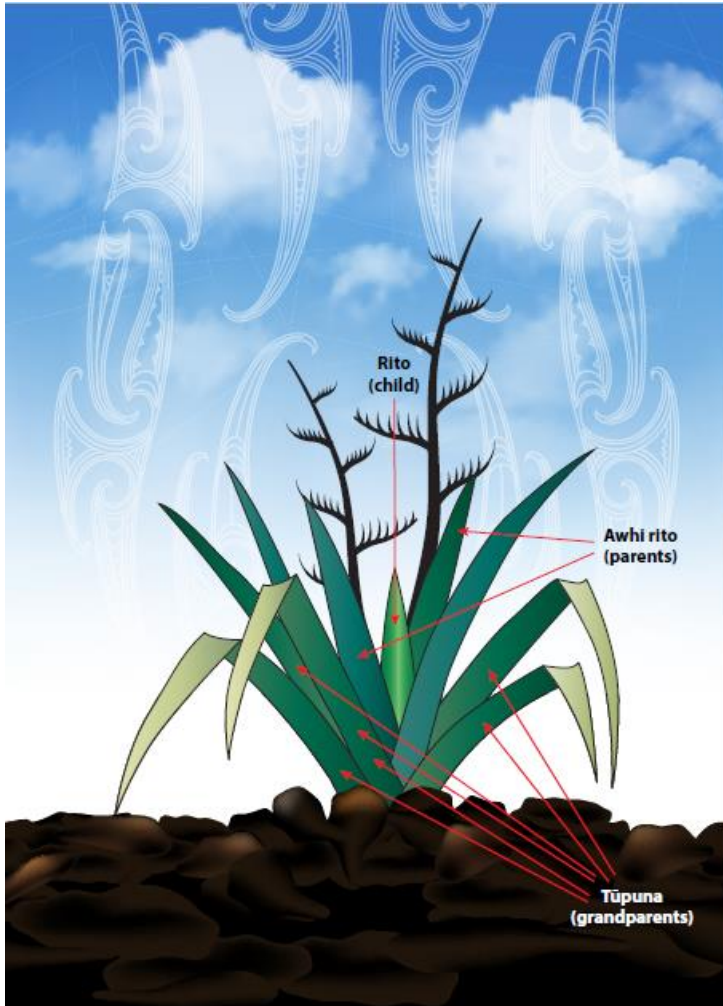
*Ki mai ki ahau; He aha te mea nui o te Ao?
Maku e ki atu, he tangata, he tangata, he
tangata.*

*If the heart of harakeke was removed,
where will the bellbird sing?*

*If I was asked, what was the most important thing in
the world?*

*I would be compelled to reply, It is people, it is
people, it is people.*

Introducing Te Rito

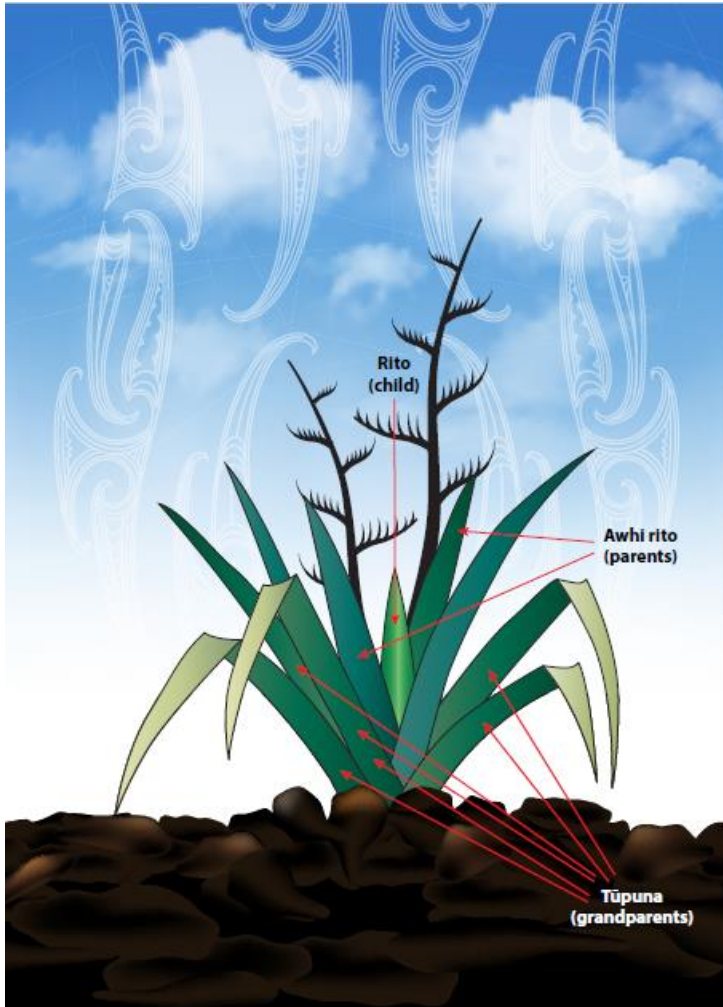


The proverb reflects the Māori reference to the harakeke plant as a whānau (family group).

The outer leaves are the tīpuna (ancestors); the inner leaves are the mātua (parents); the most inner leaf is the rito or pēpē (baby).

When taking leaves for weaving, only the tīpuna are cut as the mātua are left to protect te rito.

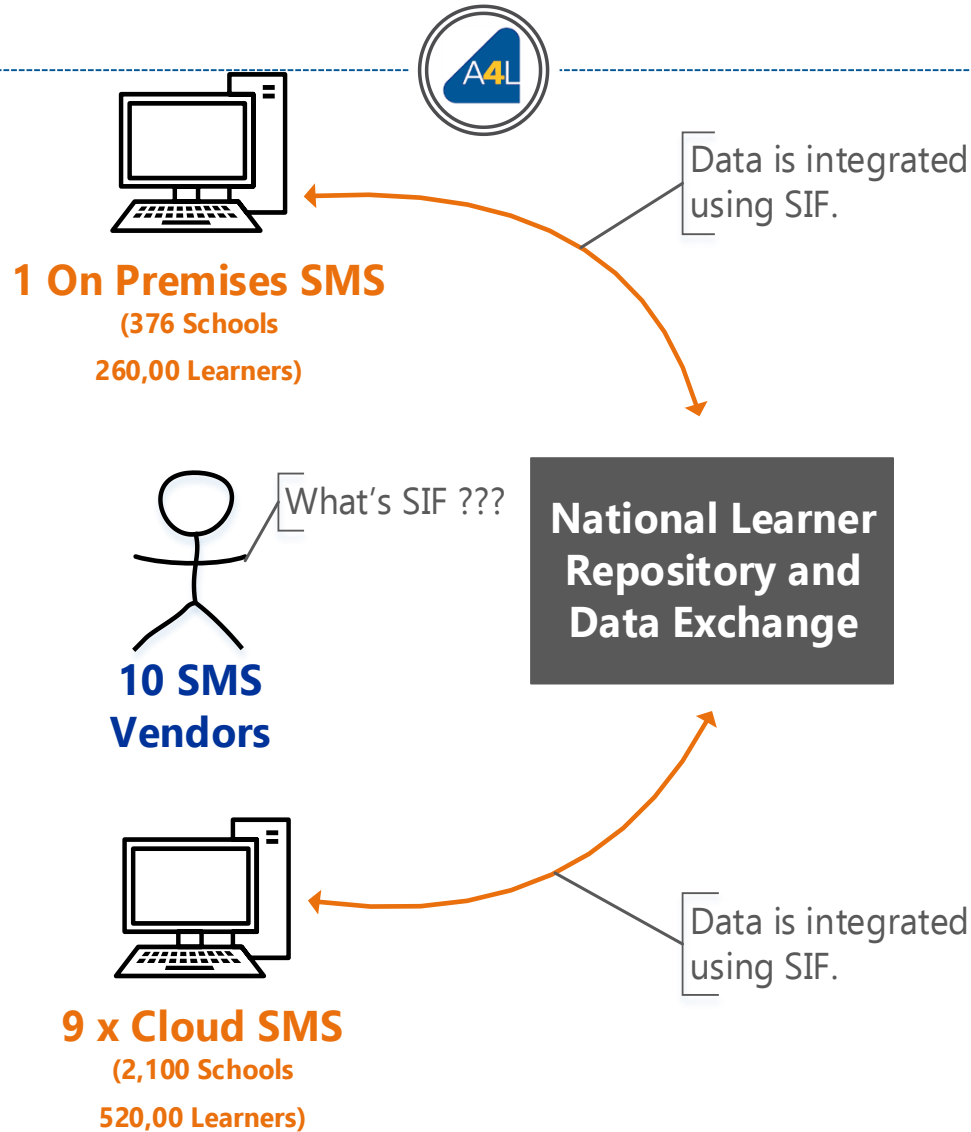
Introducing Te Rito



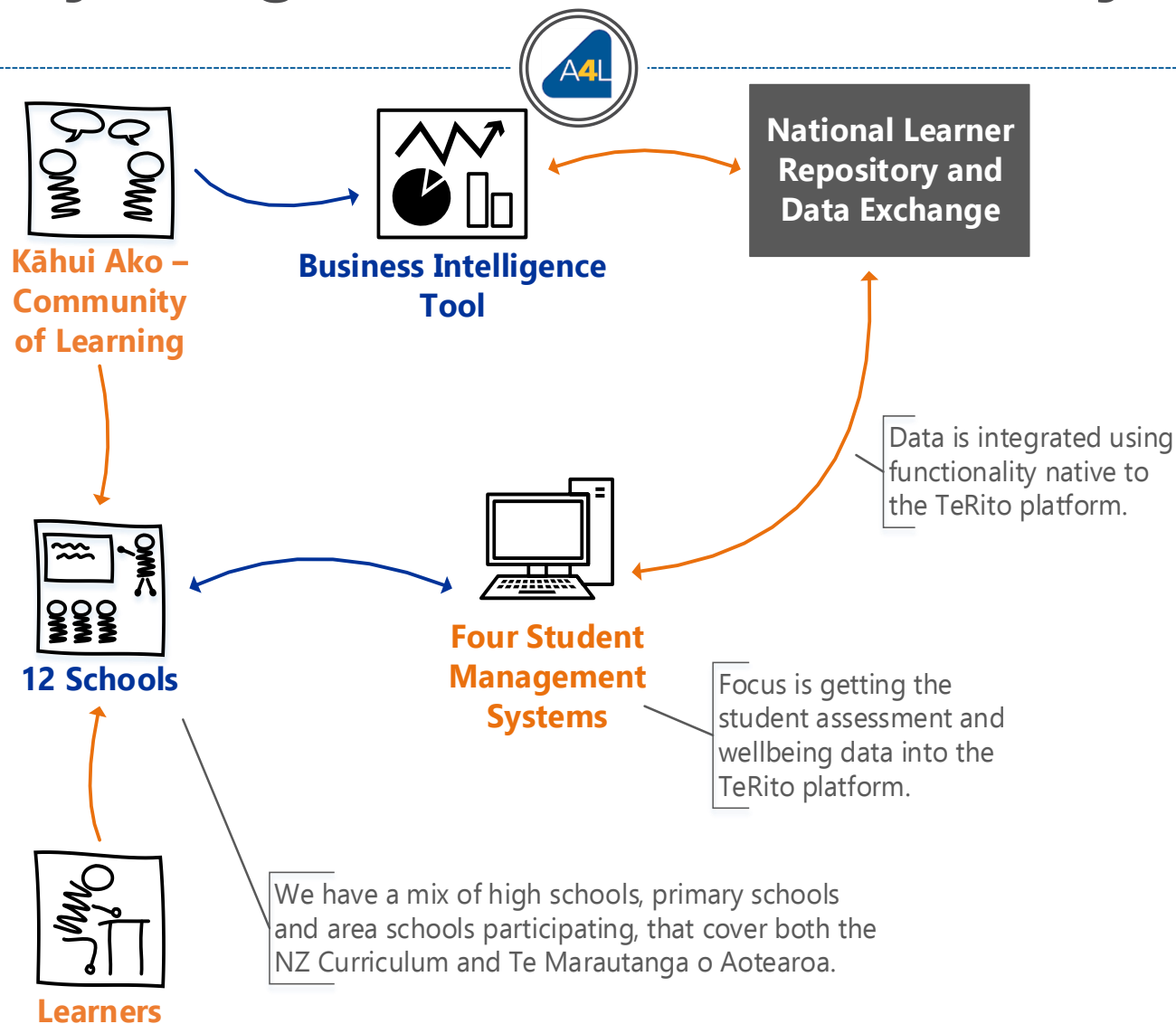
With the purpose of enhancing student information sharing for the wellbeing and educational success of the child, the name Te Rito, in the first instance, refers to the child being at the very core of the project, requiring constant care, support, and consideration.

In the second instance, the name Te Rito refers to the national repository in which all of the child's information is stored, requiring input and protection from the vendor, schools, the Ministry and other key stakeholders.

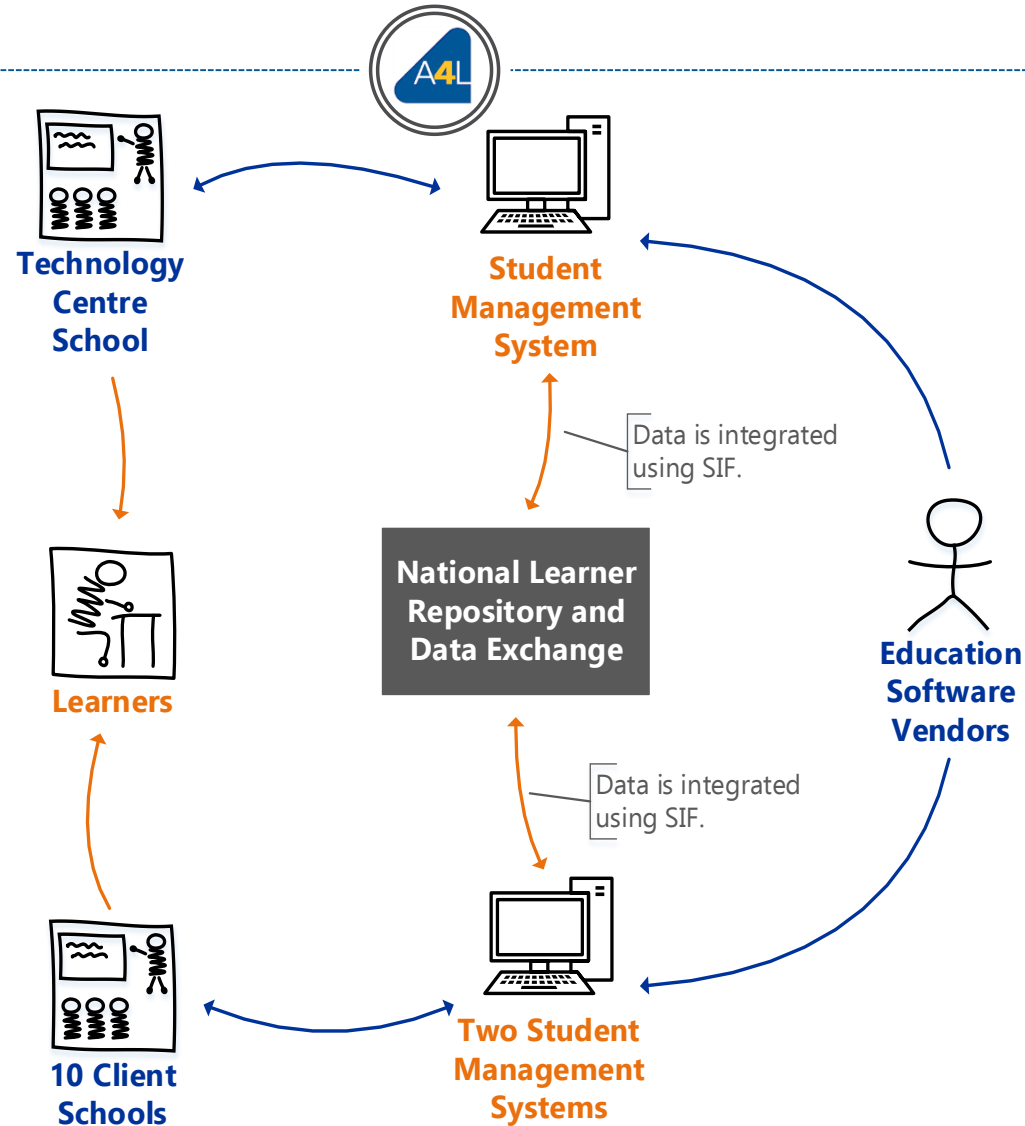
The Little Problem



Early Stage Rollout – Data Analysis



ESR – Student Management Systems



SIF Technology to be Used



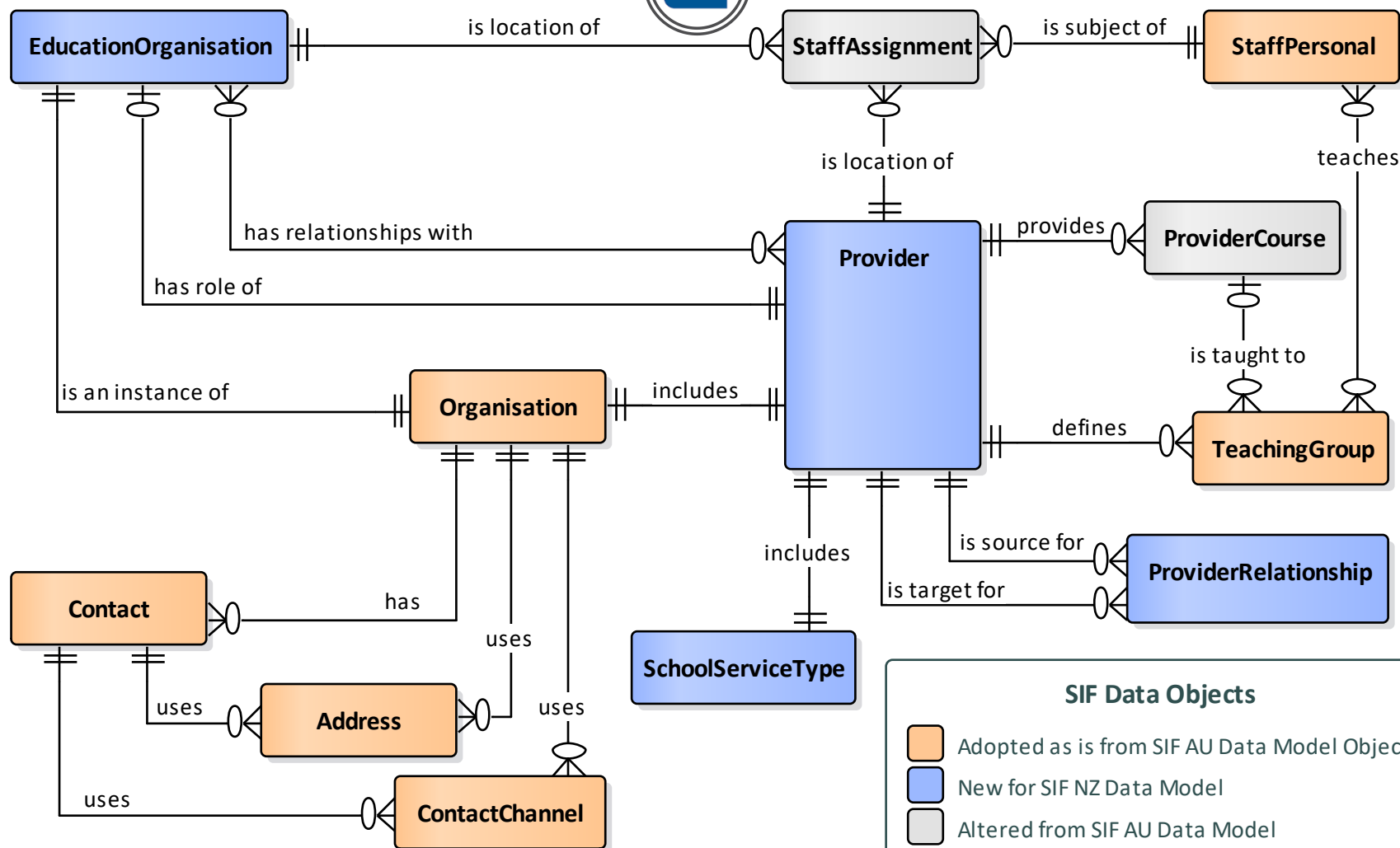
- SIF Direct Architecture
 - REST API endpoints
 - JSON Payloads
 - Asynchronous data updates in direct architecture:
 - ✦ WebSockets over Pub/Sub & Queues
 - ✦ Query for 'changes since'
- NZ Data Model – based on SIF AU v3.4

SIF NZ Data Model

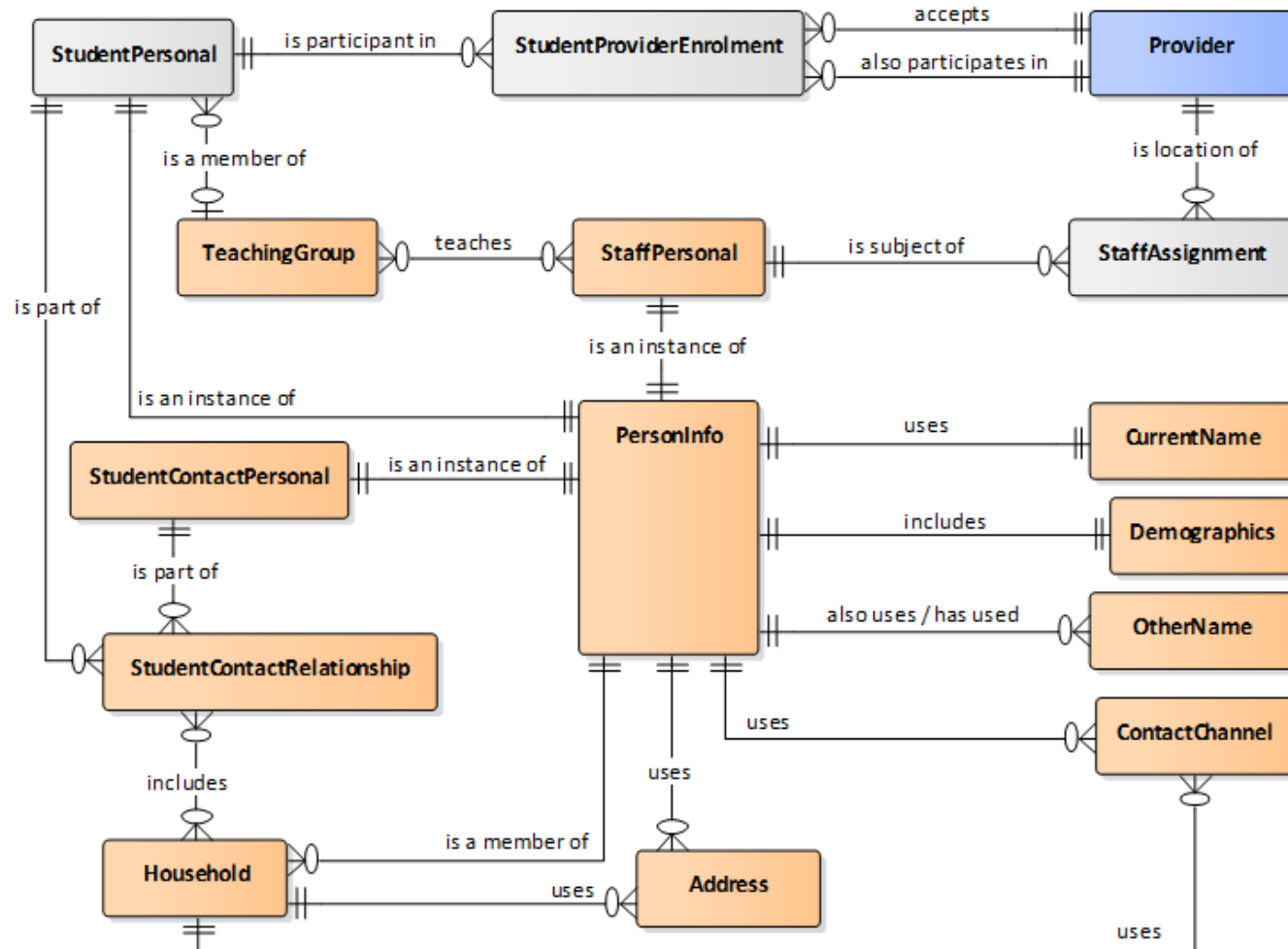


**SIF NZ DATA MODEL
UPDATES TO DATA MODEL PUBLICATION**

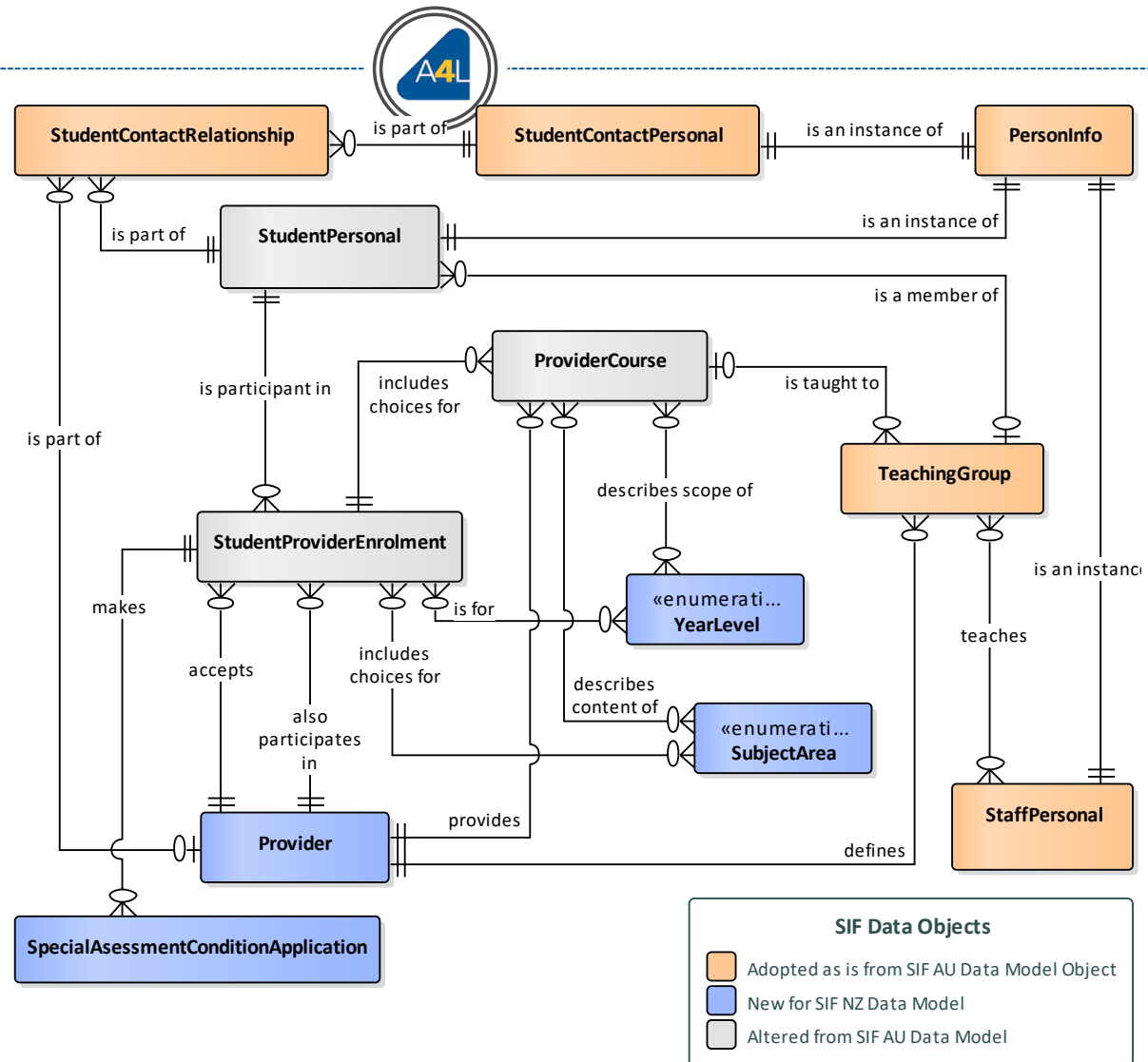
SIF NZ Data Model - Provider



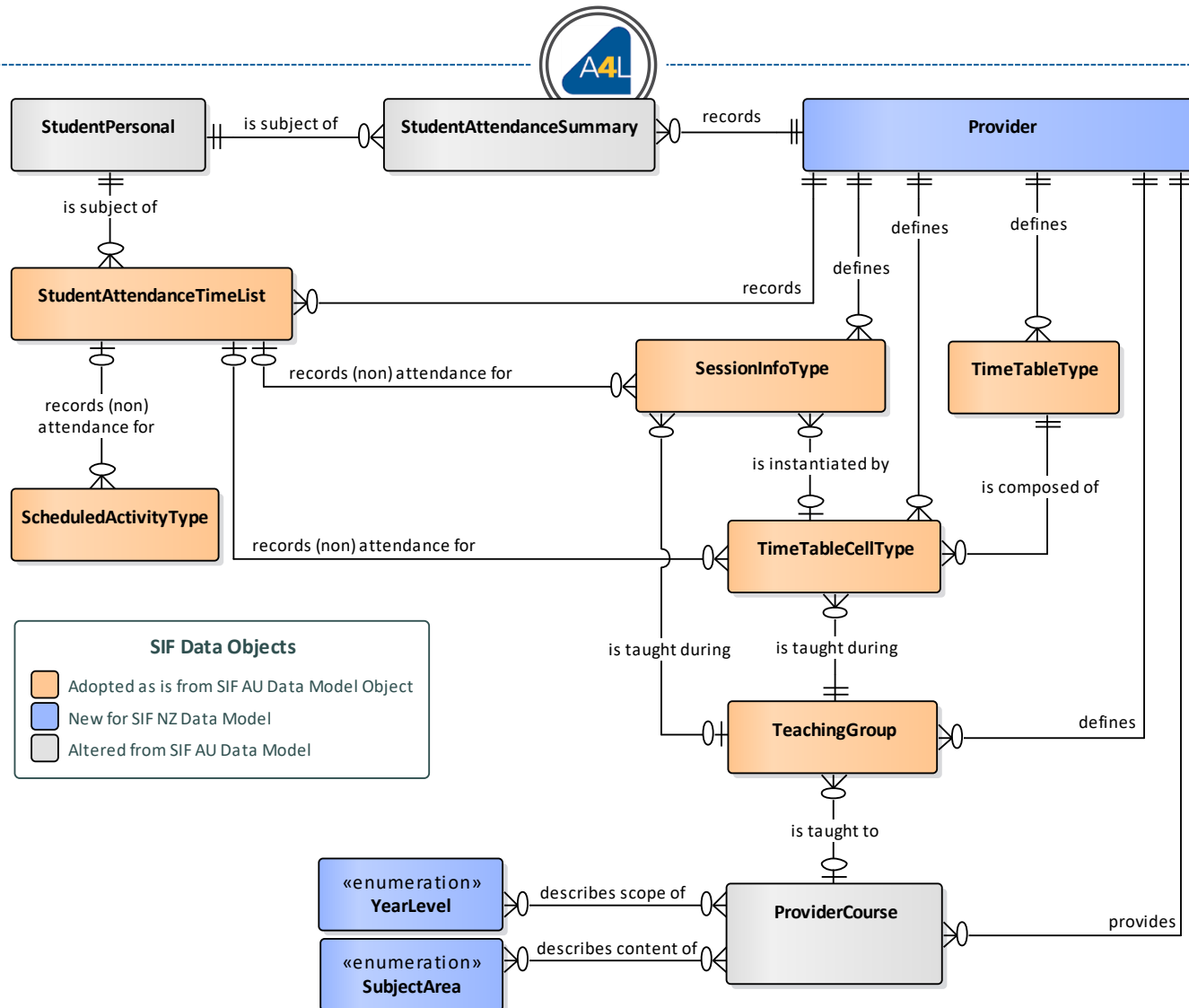
SIF NZ Data Model - Person



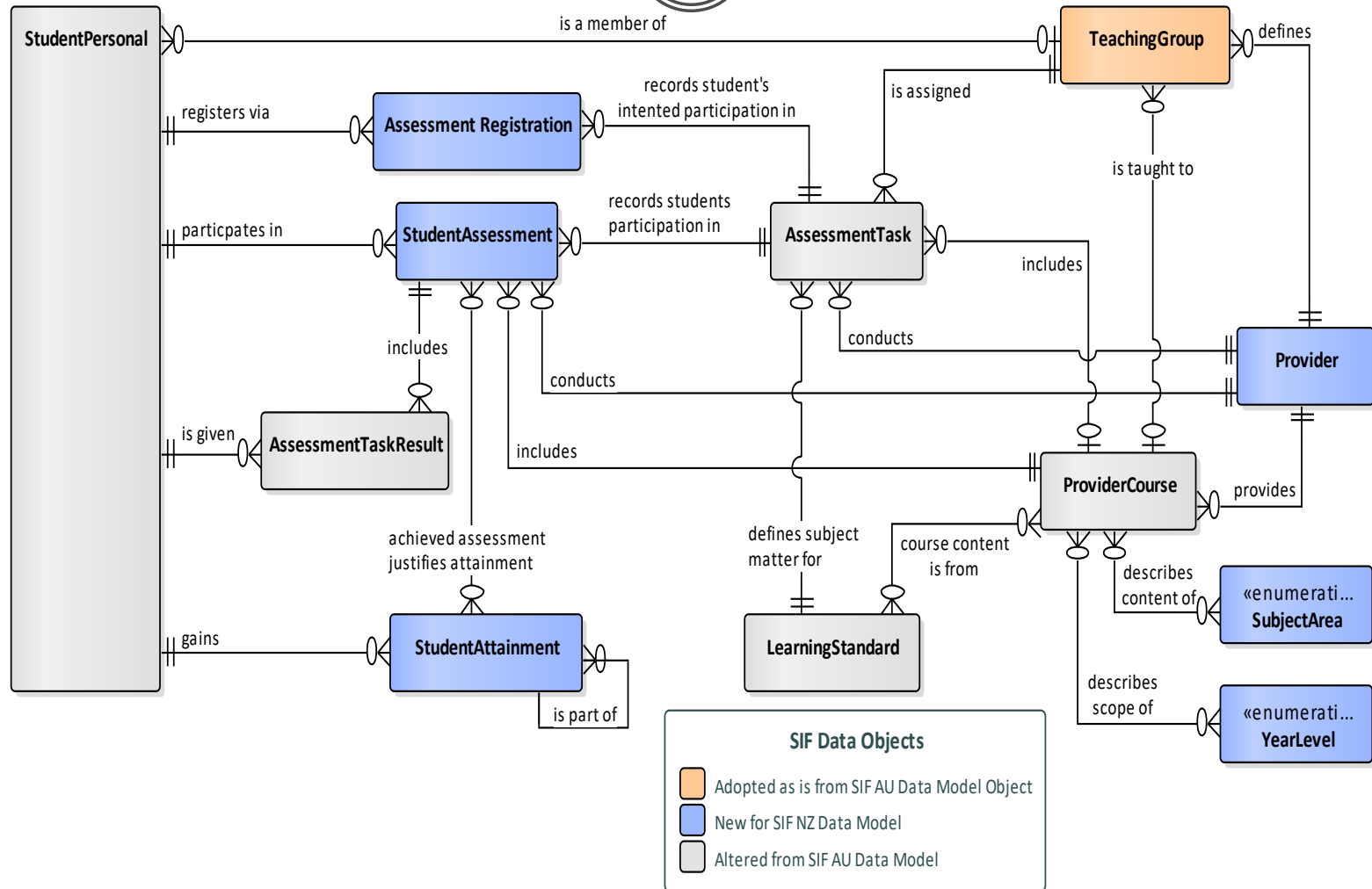
SIF NZ Data Model – Student Enrolment



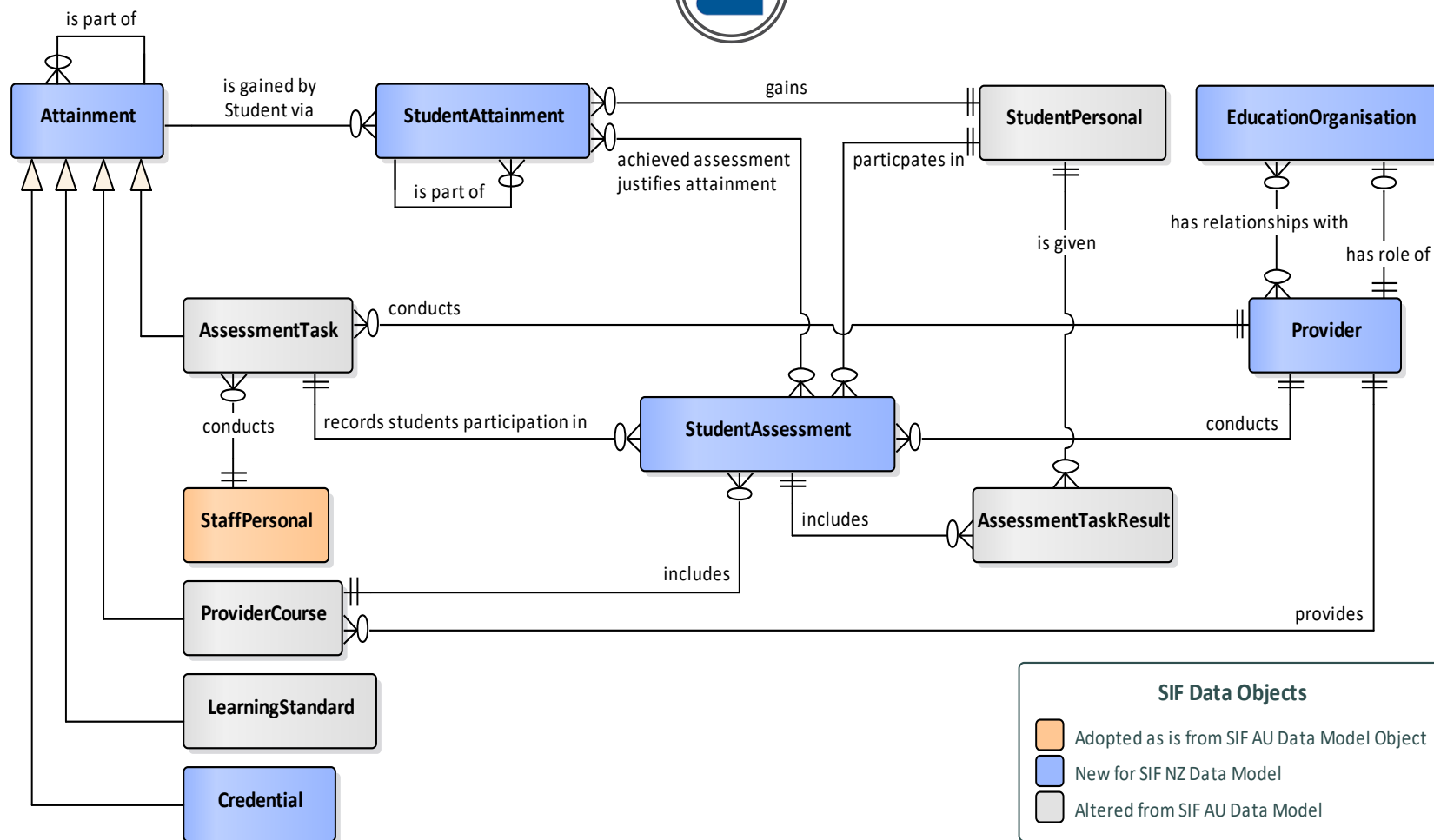
SIF NZ Data Model - Attendance



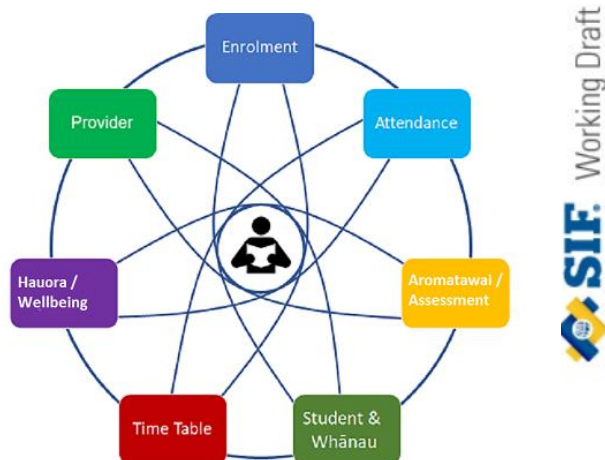
SIF NZ Data Model - Assessment



SIF NZ Data Model - Attainment



SIF NZ Data Model – Publication



Working Draft
SIF

This version:

<http://specification.sifassociation.org/Implementation/NZ/3.0/index.html>

Previous version:

<http://specification.sifassociation.org/Implementation/NZ/3.0/>

Latest version:

<http://specification.sifassociation.org/Implementation/NZ/>

XML Schemas

SIF_Message (single file, non-annotated) (ZIP archive)

SIF_Message (single file, annotated) (ZIP archive)

SIF_Message (includes, non-annotated) (ZIP archive)

SIF_Message (includes, annotated) (ZIP archive)

DataModel (single file, non-annotated) (ZIP archive)

DataModel (single file, annotated) (ZIP archive)

DataModel (includes, non-annotated) (ZIP archive)

DataModel (includes, annotated) (ZIP archive)

Notes: SIF_Message schemas define every data object element as optional per SIF's Publish/Subscribe and SIF Requ

JSON Schemas

JSON Schema definition (json)(yaml)

Open API definition (json)(yaml)

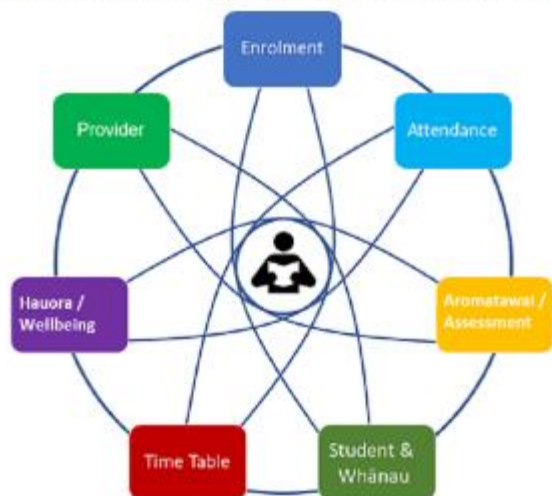
Please refer to the [errata](#) for this document, which may include some normative corrections.

SIF NZ Data Model – Publication



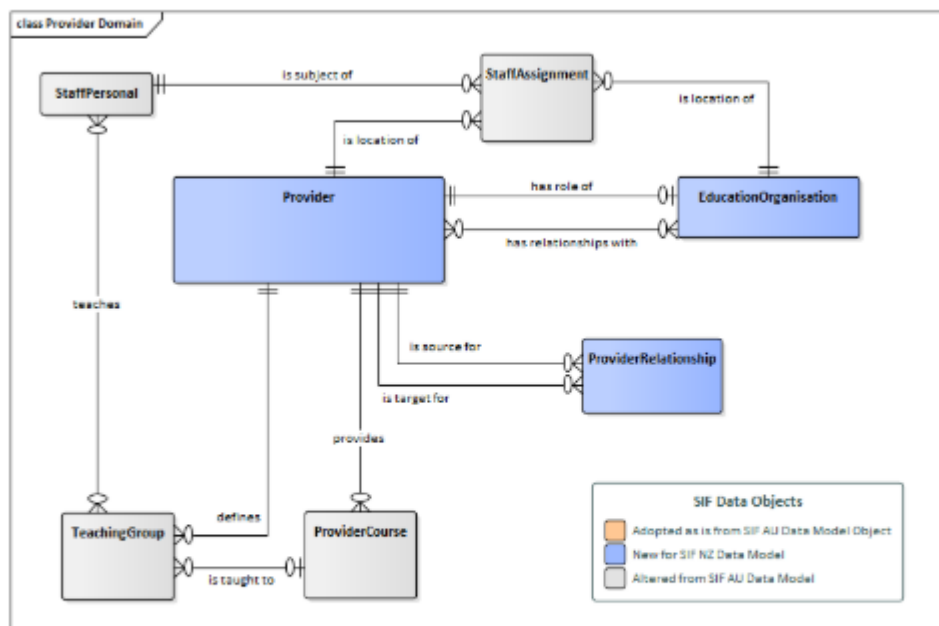
4 Domain Map

This section presents the SIF Data Objects in each of the SIF Data Model domains.



4.1 Domain: Provider

The Provider domain describes education provider entities, the relationships between them, and the Staff that work at them.



Provider

A recognised provider of education services in the New Zealand education system. Providers may operate in the Early Childhood Education Organisation

A generic organisation that operates within the education sector, but doesn't provide education services. e.g. Communities of ProviderRelationship

Records a recognised relationship between two education Providers. The two providers are referred to as the Source Provider

SIF NZ Data Model – Publication



JSON



XML



```
{
  "Provider":{
    "RefId":"D3E34B35-9D75-101A-8C3D-00AA001A1652",
    "LocalId":"01011234",
    "Authority":"1",
    "Organisation":{
      "AddressList":{
        "Address":[{
          "Type":"2",
          "Role":"2",
          "Street":{
            "Line1":"1175 Lake Ferry Rd"
          },
          "Suburb":"RD 1",
          "City":"Martinborough"
        }]
      }
    }
  },
}
```

SIF NZ Data Model – Publication



JSON 

XML 

```
<Provider>
  <RefId>D3E34B35-9D75-101A-8C3D-00AA001A1652</RefId>
  <LocalId>01011234</LocalId>
  <Authority>1</Authority>
  <Organisation>
    <AddressList>
      <Address>
        <Type>2</Type>
        <Role>2</Role>
        <Street>
          <Line1>1175 Lake Ferry Rd</Line1>
        </Street>
        <Suburb>RD 1</Suburb>
        <City>Martinborough</City>
      </Address>
    </AddressList>
    <CommunicationChannelList>
      <Channel>
        <Notes>Attendance System (Self Service)</Notes>
      </Channel>
    </CommunicationChannelList>
  </Organisation>
</Provider>
```

Locale Status Presentations



New Zealand

THANK YOU