1. If there's anything to add to the chair's introduction of me, do so now		

- 1. This was the previous website up to June 2019
- 2. Different search boxes for English-Cornish and Cornish-English

Maes T uses Google Web Toolkit allowing a responsive web-based interface. Maes T allows the backend data to be separated from the frontend website, for Welsh this has allowed use on different websites and mobile apps using an API. The Language Technologies

1. Previous version could be cumbersome to use on mobile platforms.

- websites and mobile apps using an API. The Language Technologies
 Unit in Bangor has created a Wordpress plugin *Porthydd* to assist
 its deployment.[prys2012distributing]

 2. Note difference between Middle and Late forms.
 needs of beginning learners, advanced learners, fluent speakers,
 - personal pronouns in Cornish to form inflected forms.
 hasn't been done for verbs, since this is a larger set of words, several
 tenses for each verb. perhaps show the most common paradigms
 and the auxilliary verbs?

 4. Having sound samples is probably better than using IPA
 beginners may not understand these symbols. some of them aren't

Akademi members doing language development work.

3. Personal forms were done for prepositions, which combine with

really agreed on, it is a Standard Written Form and may not be prescriptive for pronunciation.
5. e.g. understanding can mean an agreement, or knowledge. note dictionary also matches verb form understand, this is a feature of Maes T.

- 1. Previous version had been done in a software called Tshwanel ex-2. Some review updates had already been done in the previous
- software, but not all. 3. Terms standardised by the Terminology Panel and recommended for
- use.
- 4. Akademi has a process for proposing a term, and wanted to be able to place it online but marked as a 'proposed term' so that the community would be able to comment on it before it became an established word in the language. There is a similar process in Maes

T for Welsh, but this is within the group of domain experts prior to

online publication.

principle to Hyper Text Markup Language, which web pages are
written in, but being extensible, any text can be used as tag names.

1. XML is eXtensible Markup Language, which works along a similar

- Certain words / phrases were in <partofspeechgroup> and <subentry> tags within <lemma>s. this could lead to duplication where one phrase could exist as subentries of more than one <lemma>
- 2. Check cases where no part of speech is defined etc.
- 3. Count occurances of descendant tags of <lemma>.
- 4. Count how many <lemma> have each part of speech.

- One of the major data processes undertaken by DT was to combine each word into a single <lemma> and define the M and L variants where they exist within this.
- Previously they lived in independent <lemma> and if you searched the M version it relied on references tags having been added to refer to the L version.
 - 3. The previous data was not always systematic about how M / L distinction was marked. The M and L forms were independent of each other.

1. On the website you can click through to the L version a versa, and to the English glosses.	and vice

 In this case there is only one spelling which is used by both Middle and Late Cornish.

There is however a <homonymnumber> tag because a-ugh can also be a preposition, which is listed as a separate <lemma>.

- The preposition homonym has personal forms listed.
 There is also a <lemma.late.personal.forms> tag group which was
 - There is also a <lemma.late.personal.forms> tag group which was edited out on the slide for brevity containing the Late personal forms.

- Maes T was guided by ISO standard formats and practices for terminology and lexicography. The ISO standard 15188 recommends a working group of 5-8 subject specialists and a terminologist. Provide interface designed to be user-friendly to non-terminologists, bilingual English-Welsh.
- There is a four stage process
 Collecting Terms record candidate terms for the source language term.
 - 2. Defining the concept define in the source and target languages, add a disambiguator where needed.
 - 3. Standardizing Terms -record normative status of candidate terms.4. Linguistic Information record part of speech, gender, plural
- forms etc.

 3. Data can be served via an API, features such as showing related entries, popups to explain pos tags. matching images from
- Wikidata, Wikimedia Commons, linking to Wikipedia.

 4. Potential benefits of ISO standard based approach of Maes T for Cornish, such as software locali[sz]ations.

1. Filament: termau.cymru/#filament. In this case, the image was contributed by an expert, along with a definition.

1. Ladybirds: termau.cymru/#ladybird. In this case, Wikimedia commons images were used (manually chosen during a project with *Cymdeithas Edward Llwyd*).

- 1. This was added as part of Adar Y Byd, a dictionary of bird names from Cymdeithas Edward Llwyd. This had 9500 entries, so an automated method was used.
- 2. There is a species of moth called 'Silurian' and this found a Wikimedia image of a Doctor Who character. [Crossing2018]

Note also: termau.cymru/#apple which showed as of July 2019 a picture of Apple headquarters rather than the fruit. xkcd.com/2140 Reinvent the Wheel

Also beware of possible API changes.

dictionaries which aimed at a one to one mapping between source language and target language terms. Although it had been used since for more general dictionaries such as Geiriadur Bangor.

1. The original purpose of Maes T was to support terminology

- 2. Welsh grammars tend to treat the singulative / collective nouns as a normal singular / plural distinction e.g. coeden - coed, plentyn plant, where the noun loses an ending to become plural.
- 3. The plural of the singulative is a feature of (at least some forms) of Cornish, for a number of individual items, rather than en masse, for at least some n.coll. E.g. gwydh, gwedhen, gwydhennow. Not

currently shown in dictionary.

- 1. In production, the data would be edited by a number of different people who may be non-programmers.
- 2. Maes T can provide a platform for this in a similar way as to the Welsh terminology development.

- 1. Briefly outline process by which Akademi intends to do this, and terminology areas in development.
- 2. Akademi terminology policy outlining process of creating a term.
- 3. Akademi dictionary policy according to which a terminology item is recommended and after a period of review becomes considered part of the main dictionary

- 1. Explain a bit about linking to Wikimedia Commons images of plants, and to Wikipedia.
- 2. See [Crossing2018] for more information on Porth Termau Cenedlaethol Cymru linking to Wikimedia images. This included automatically finding them using English and Latin names.

- 1. New version is now at the main URL.
- Possibly do the demo at the end or in an unconference session subject to time, maybe better for flow of the talk to move to conclusions now.
- 3. Responsive design e.g. cornishdictionary.org.uk/#moon automatically switches to two-column layout where there are matches in both languages, and if the screen width is low, these are stacked vertically rather than side-by-side.

- 1. Other features that would be nice?
- 2. Make plurals / singulatives searchable e.g. mergh, gwedhen search aware of mutation such that 'gath' finds 'kath', awareness of 'traditional' spellings that some users prefer such that searching 'cath' finds 'kath'

spellings from other forms of Cornish e.g. gwydhenn (Kemmyn) - gwedhen (SWF) could M / L, and/or the 'traditional' forms be offered as a user

selection at the front-end?
and a choice between a strict and 'fuzzy' search?

- 3. Maes T does this for Welsh, using lemmatizers, spelling and grammar checkers. e.g. geiriadur.bangor.ac.uk/#plant lemmatizes 'plant' to the singular 'plentyn' "child". It will also present the English entries for 'plant'. geiriadur.bangor.ac.uk/#mor gives the conjunction/adverb mor and the noun môr, as well as bôr (an alternate spelling for bore, b could have nasal mutated to m). Maes T customizes results using different API keys including
- different terminology resources and search settings.

 4. Possibilities of wider linking to Wikimedia items including Wikidata?
- 5. Linkage with place-name map?

