

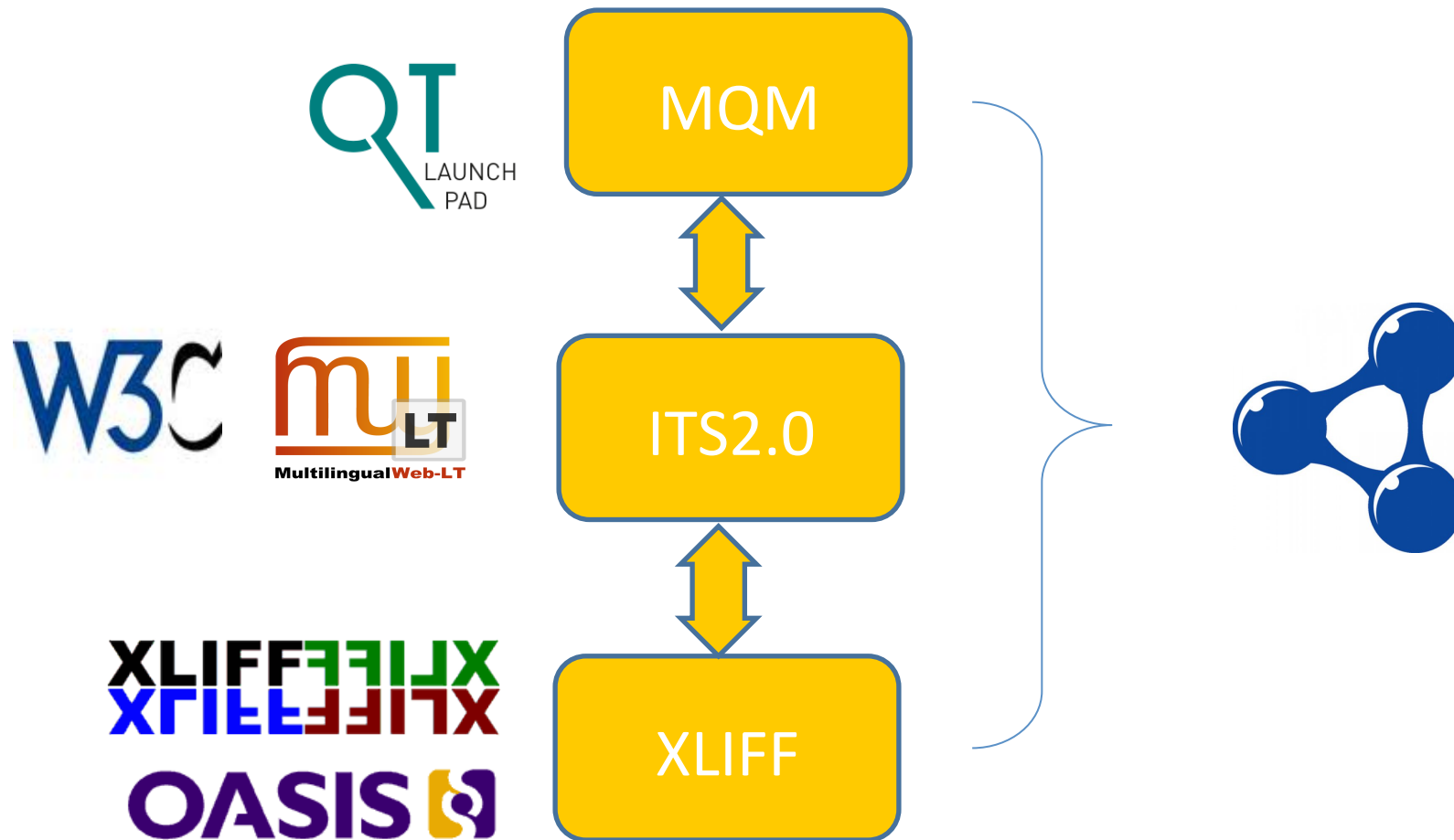
Quality Models, Linked Data and XLIFF: Standardisation Efforts for a Multilingual and Localized Web

David Filip, CNGL at University of Limerick

Arle Lommel, DFKI

David Lewis, CNGL at Trinity College Dublin

Updates on Converging Standards



XLIFF 2.0

- XLIFF 2.0 is now Candidate OASIS Standard
<http://docs.oasis-open.org/xliff/xliff-core/v2.0/cos01/xliff-core-v2.0-cos01.html>
- Announced by OASIS here:
<https://www.oasis-open.org/news/announcements/60-day-public-review-for-xliff-version-2-0-candidate-oasis-standard-ends-july-5th>
- Test suite at TC's public SVN
https://tools.oasis-open.org/version-control/browse/wsvn/xliff/trunk/xliff-20/test-suite/?rev=521&sc=1#_trunk_xliff-20_test-suite_

5th XLIFF Symposium

- @ FEISGILTT 2014 @ LocWorld Dublin 2014, June 3-4, 2014, Convention Centre Dublin
<http://www.localizationworld.com/lwdub2014/feisgiltt/>
- Accepted speakers:
<http://www.localizationworld.com/lwdub2014/feisgiltt/accepted.html>
- Registration
<https://www.localizationworld.com/lwdub2014/orderFeisgiltt.php>
- Content Analytics meets localization
- XLIFF 2.1 and XLIFF 2.x info session

XLIFF 2.x

- XLIFF 2.0 is modular to allow for rapid release of 2.x versions
- Core is lightweight (about 20% of 1.2 features)
- Advanced functionality in numerous specialized areas is available through 8 modules
<http://docs.oasis-open.org/xliff/xliff-core/v2.0/cos01/xliff-core-v2.0-cos01.html#modules>
- In Dublin 2.x plans will be discussed with the wider community of stakeholders

XLIFF 2.1

- ITS 2.0 module
 - based on ITS 2.0 <-> XLIFF 2.0 mapping WIP here:
https://www.w3.org/International/its/wiki/XLIFF_2.0_Mapping
 - Yves Savourel will report on this in **Dublin, Wed June 4, afternoon**
- Advanced validation support
 - Constraints beyond xsd expressivity
 - Processing requirements express rules for dynamic validity
 - Numerous namespaces require NVDL for standardized automated validity testing
 - Felix Sasaki will report on this in **Dublin, Wed June 4, afternoon**

XLIFF 2.x roadmap

- Requirements Gathering for XLIFF 2.x
 - Bryan Schnabel will chair this in **Dublin, Wed June 4, afternoon (after coffee break)**
- Yearly release schedule will be proposed by Microsoft Kevin O'Donnell
 - Feasibility will be discussed with TC and stakeholders at large
 - **Dublin, Wed June 4, afternoon (after coffee break)**

Multidimensional Quality Metrics (MQM)

A New Framework for Translation Quality Assessment

Arle Lommel (DFKI)



Funded by the 7th Framework Programme of the European Commission through the contract 296347.



QTLaunchPad is an EU-funded project to lay the ground for systematically identifying and addressing the barriers to high-quality translation.

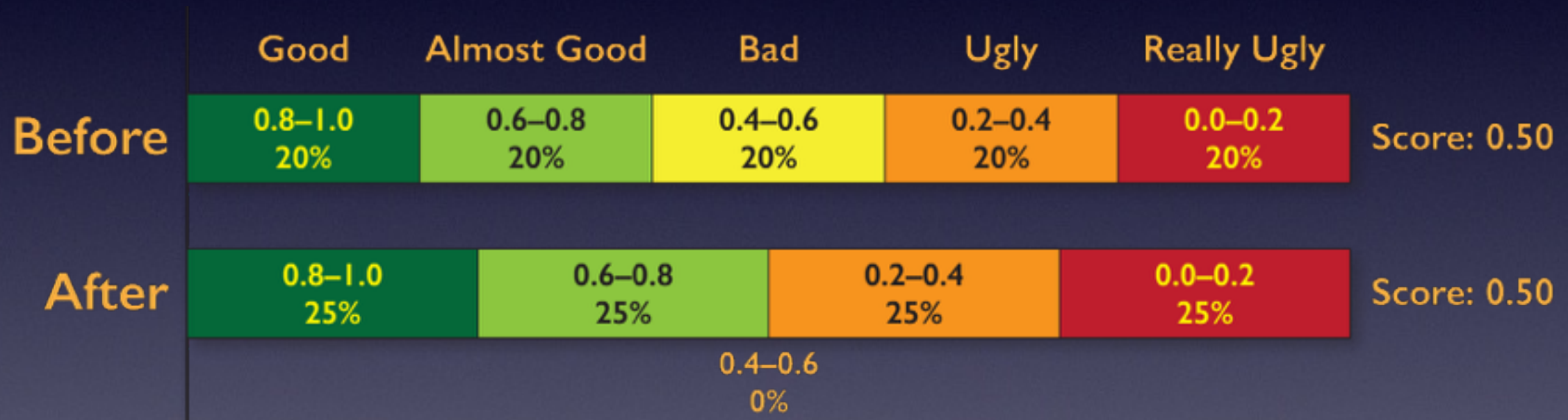
Many ways of assessing quality
= no agreement

The problem with BLEU/ many reference methods

	Good	Almost Good	Bad	Ugly	Really Ugly	
Before	0.8–1.0 20%	0.6–0.8 20%	0.4–0.6 20%	0.2–0.4 20%	0.0–0.2 20%	Score: 0.50
After	0.8–1.0 20%	0.6–0.8 20%	0.4–0.6 25%	0.2–0.4 25%	0.0–0.2 10%	Score: 0.53

Increased BLEU score but
no substantial improvement for human use

The problem with BLEU



Substantial human improvement but no
BLEU increase

MT methods require
reference translations:
Cannot be used for
production purposes

Human quality assessment
takes too much time
and is not principled

Wait a minute...

What do you mean by
quality?

Quality: A New Definition

A quality translation demonstrates
required accuracy and fluency
for the audience and purpose and
complies with all other negotiated specifications,
taking into account end-user needs.

Source: Alan Melby

Why not use a
single, shared metric?

Which one?

LISA QA Model

SAE J2450

SDL TMS

Acrocheck

ApSIC XBench

CheckMate

QA Distiller

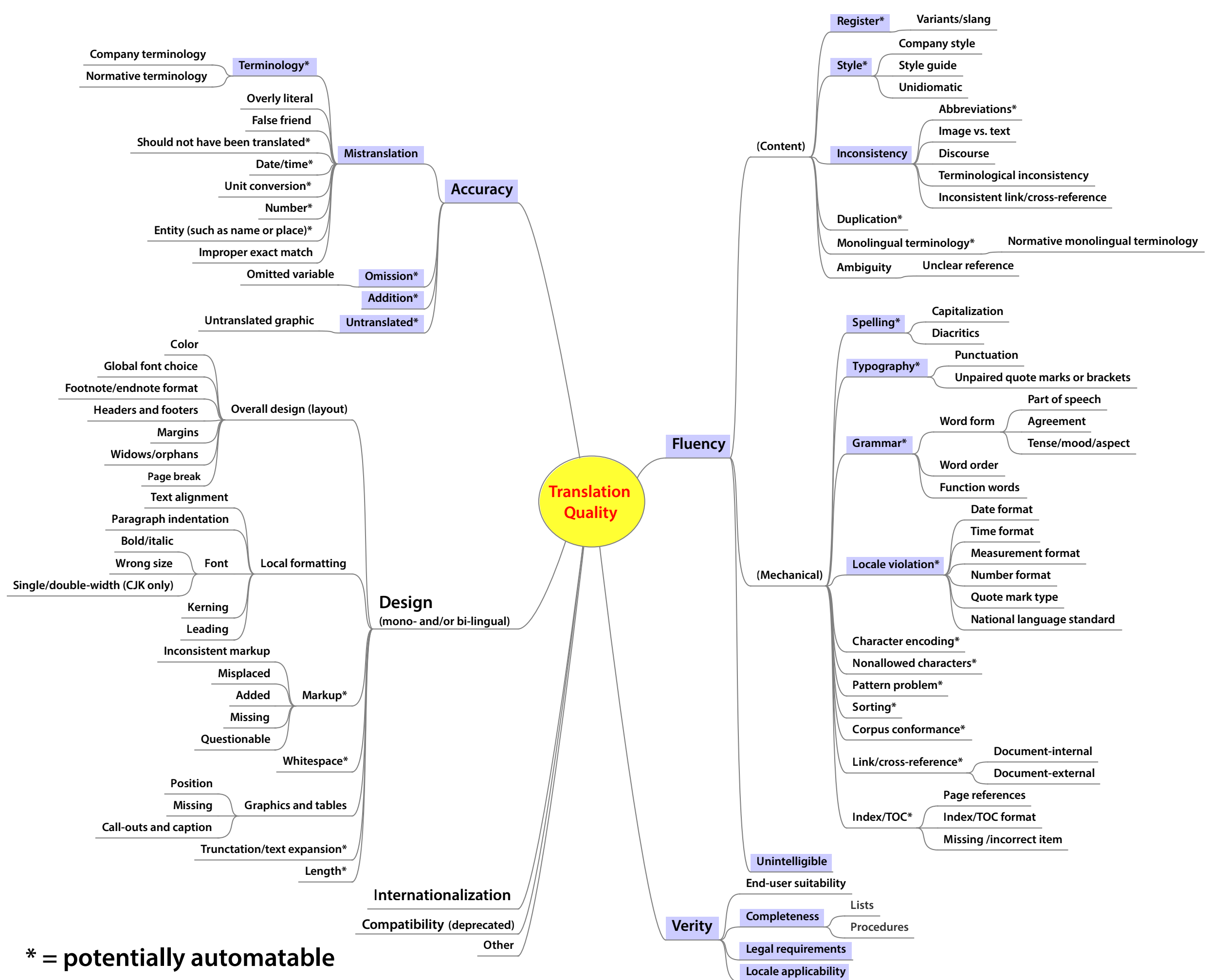
XLIFF:Doc

EN15038...

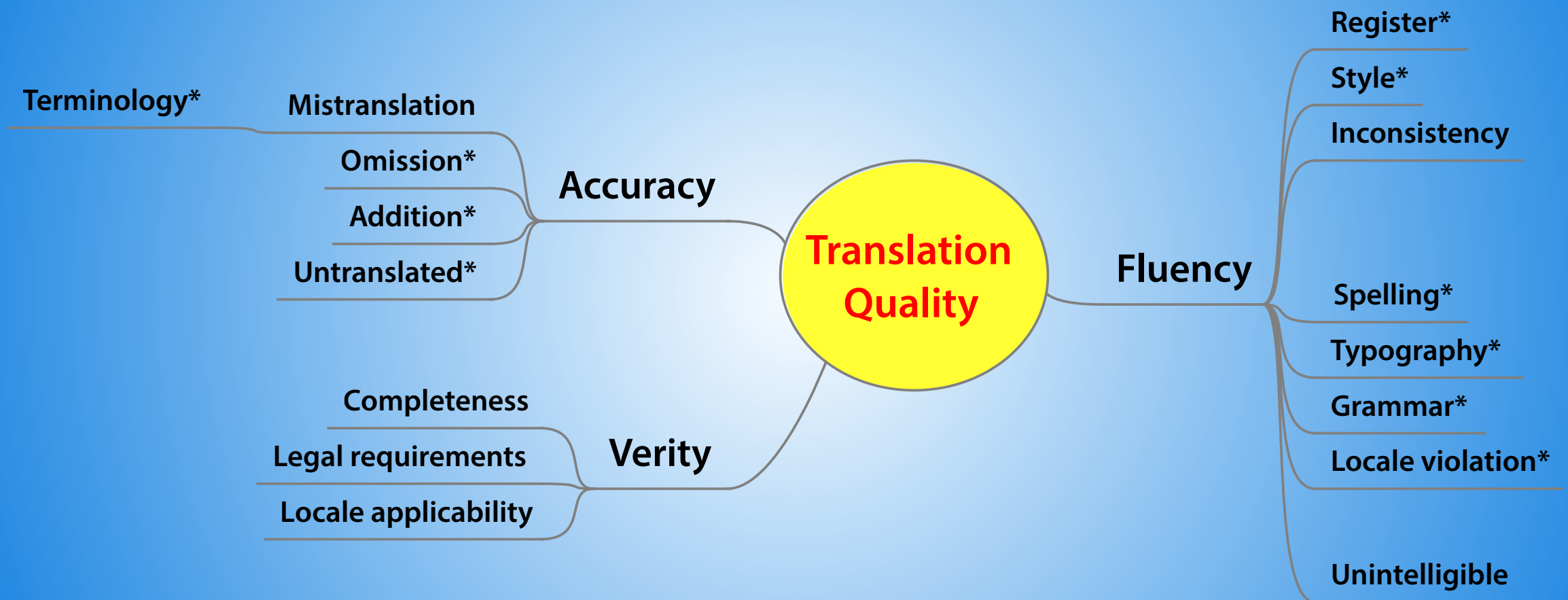
All of them disagree* about
what is **important to**
quality

*The only thing they agree on is terminology

The solution



Are you kidding?



The MQM Core

Don't **assume**.
Use **specifications**.

Specifications based on 12 Parameters

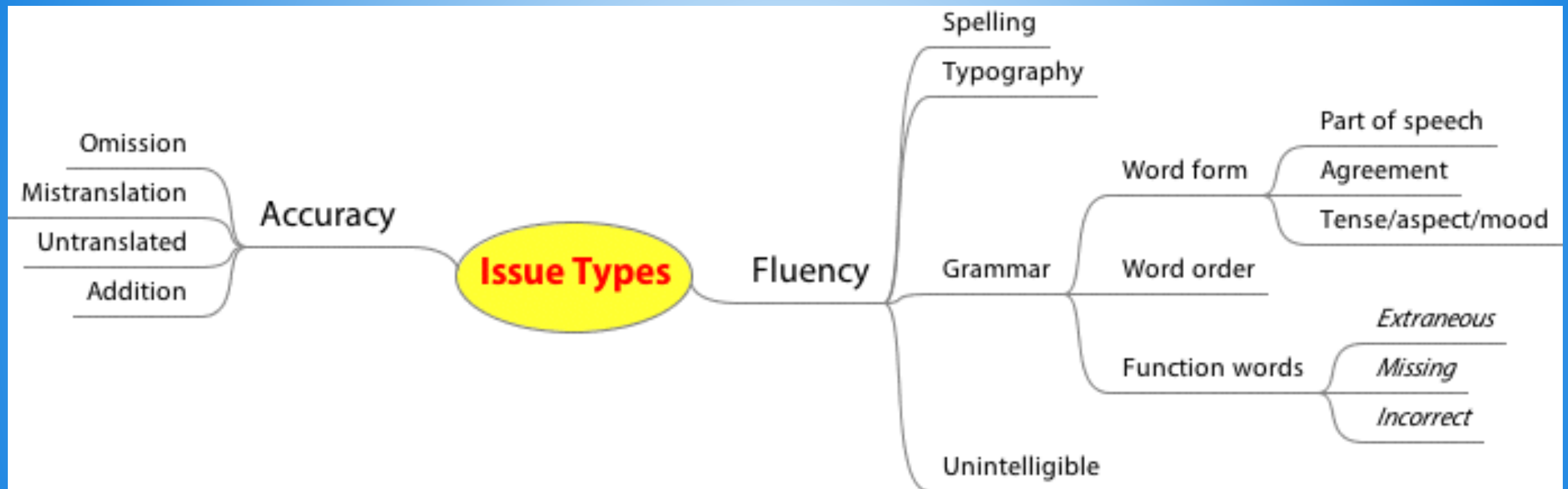
(from ISO/TS-11669)

1. Language/locale
2. Subject field/domain
3. Terminology (source/target)
4. Text type
5. Audience
6. Purpose
7. Register
8. Target text style
9. Content correspondence
10. Output modality
11. File format
12. Production technology

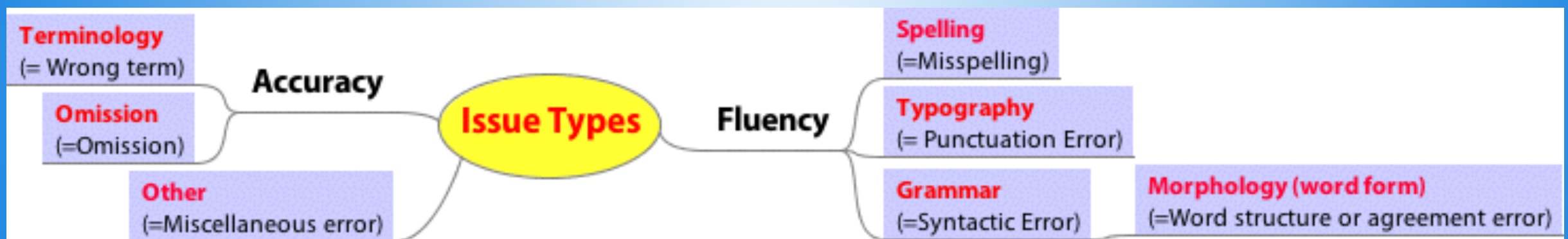
<http://www.ttt.org/specs>

You don't use all of MQM
(or its core):
you **use the**
parts you need.

MQM lets you declare your
quality metric in a **shared**
vocabulary.

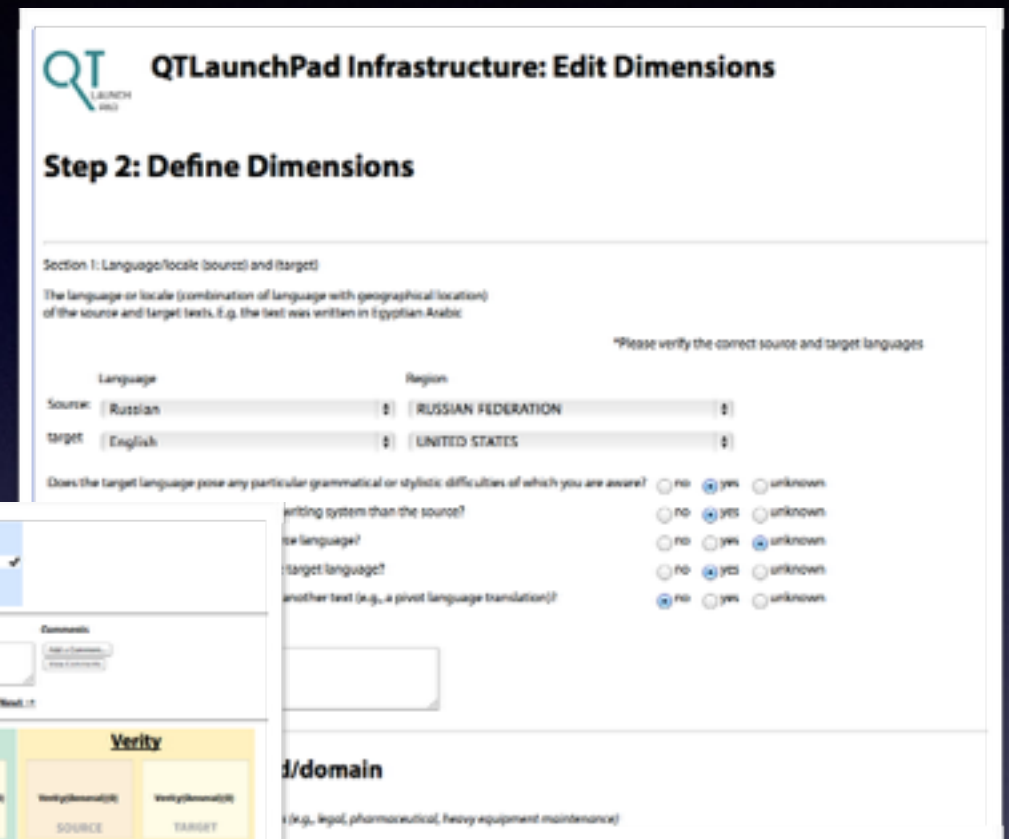
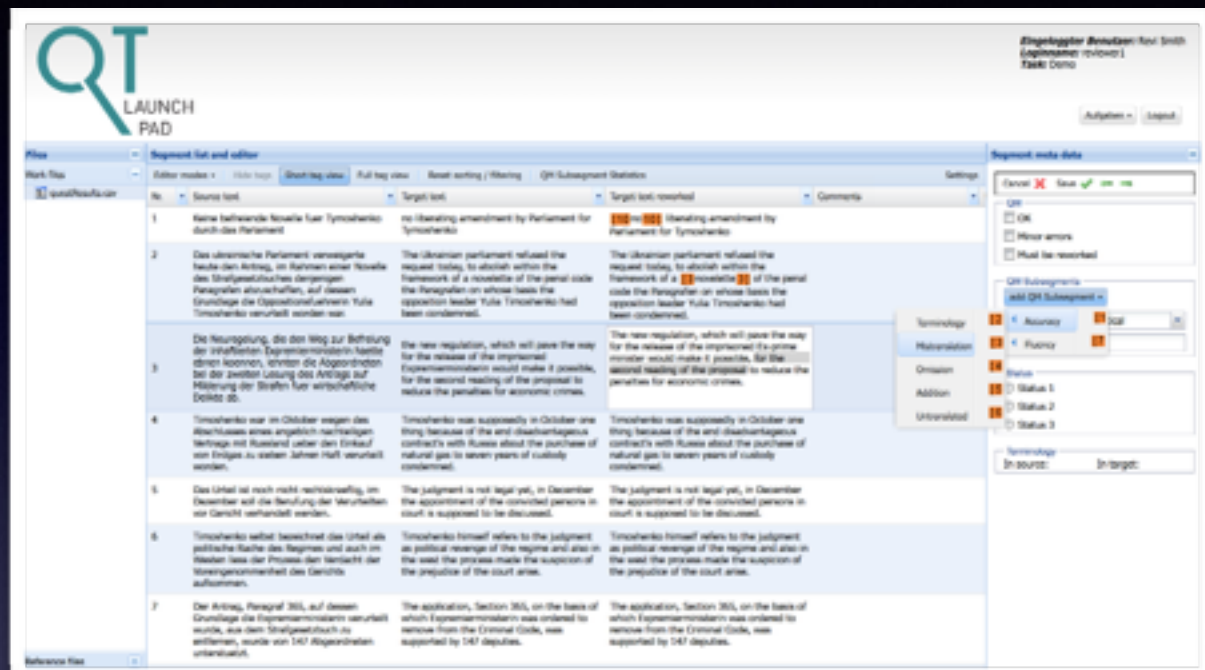


MQM for MT Diagnostics



SAE J2450

Open-source and online tools



Accuracy		Fluency				Verity	
Accuracy (General) (R)		Fluency (General) (R)	Fluency (General) (R)	Mechanics of (General) (R)	Mechanics of (General) (R)	Verity (General) (R)	Verity (General) (R)
TARGET		SOURCE	TARGET	SOURCE	TARGET	SOURCE	TARGET
Terminology (R)		Content (General) (R)	Content (General) (R)	Spelling (R)	Spelling (R)	Legal requirements (R)	Legal requirements (R)
TARGET		SOURCE	TARGET	SOURCE	TARGET	SOURCE	TARGET
Misinformation (R)		Secondaries (R)	Secondaries (R)	Grammar (R)	Grammar (R)		
TARGET		SOURCE	TARGET	SOURCE	TARGET		
Omission (R)		Register (R)	Register (R)	Unintelligible (R)	Unintelligible (R)		
TARGET		SOURCE	TARGET	SOURCE	TARGET		
Unintelligible (R)							
TARGET							

DEMO: <http://www.translate5.net>
<http://scorecard2.gevterm.net>

Integration with XLIFF and ITS

- Ongoing topic is integration with XLIFF. Will be discussed in context of XLIFF 2.0
- MQM namespace needs to be fully defined. Being designed to use and extend ITS 2.0 mechanisms so that ITS 2.0 processes can use MQM at a basic level
- MQM \leftrightarrow ITS 2.0 mapping exists
- Further development planned in QT21 (ICT 17a) and CRACKER (ICT 17c) projects

Looking for feedback:

[http://www.qt21.eu/
mqm-definition](http://www.qt21.eu/mqm-definition)

Questions?

Learn more at

<http://www.qt21.eu>

ITS 2.0 Basic principles

Say important things

- “Do not translate”

About specific content

- “All or selected data elements”

In a standard way

- With agreed upon syntax and values

ITS 2.0 Data Categories

ITS1.0

- Translate
- Localization Note
- Terminology
- Directionality
- Lang info
- Element within text

I18n

- Locale Filter
- External Resource
- Preserve Space
- Allowed Characters
- Storage Size
- ID Value
- Target Pointer

Language Technology

- Domain
- MT confidence
- Text Analysis

Provenance & QA

- Localization Quality Issue
- Localization Quality Rating
- Provenance

Example: MT Confidence

Score from machine translation engine

Example for new ITS capability: Tool traceability

```
<!DOCTYPE html> ...
```

```
<body its-annotators-ref="mt-confidence | file:///tools.xml#T1">
```

```
<p>
```

```
<span its-mt-confidence=0.8982>Dublin is the capital of  
Ireland.</span></p>
```

```
</body></html>
```

Example: Text Analysis

Annotation from text analysis engine, e.g. Named Entity Recognition

Integration point between Text Processing and Linked Data

```
<!DOCTYPE html> ...  
<body its-annotators-ref="ta-confidence | http://www.enrycher.org">  
  <p>  
    <span its-ta-ident-ref="http://dbpedia.org/resource/Dublin"  
      its-ta-class-ref=http://schema.org/Place  
      its-ta-confidence=0.5>Dublin</span> is  
    the capital of Ireland.</p>  
</body></html>
```

Example: Localization Quality Issue

For quality assessment

```
<!DOCTYPE html> ... <span  
  its-loc-quality-issue-comment="should be 'quality'"  
  its-loc-quality-issue-profile-ref=http://example.org/qaMove1/v1  
  its-loc-quality-issue-severity=50  
  its-loc-quality-issue-type=spelling>qulaity</span> ...
```

ITS2.0 by Numbers

16
Months

53 Contributors
from 24
Organisations

75 virtual 7 Face-
to-Face WG
Meeting

132 issues
raises and
resolved

550 Actions
completed

15 Organisations
Implementing

4800+ Posts
to WG List

93 Examples
in Spec

225 Test
Suite Files

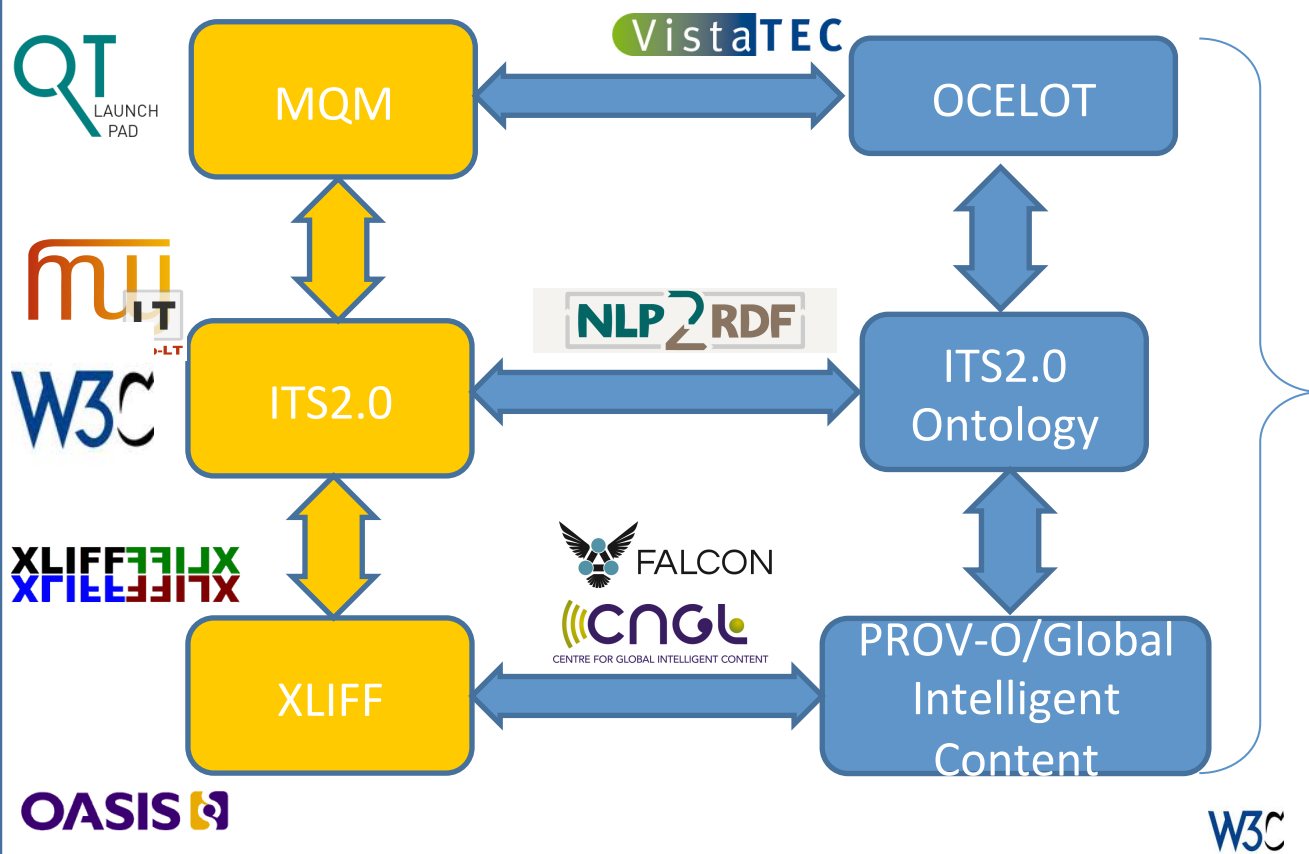
1016
successful
Conformance
Tests

Harmonising with RDF

Content Processing (DOM)

Linked Data Processing (RDF)

Linguistic Linked Data



mulider

Use Cases:

Content Analytics;
Corpora curation;
Content enrichment;
Human-MT quality;
Your use case

**Linked Data for
Language Technology**