

#### **XBRL NL – 9th December**

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#### Collaborate | Advocate | Standardise

#### Background

# The **Open Information Model** (OIM) is a strategic initiative to **simplify** and **modernise** XBRL.

# The OIM initiative has included the development of two new formats for XBRL reports: **xBRL-CSV** and **xBRL-JSON**





## Why do we need OIM?



- "Current" version of XBRL is v2.1
- XBRL v2.1 was finalised in 2003
- In 2003, XML seemed like a pretty neat idea

(it was)







#### OIM Goals

- Separate (XML) syntax from semantics
- Unify model natively multi-dimensional
- Remove complex but little-used features





### Sounds great, but how does it help me?

Two new standardised formats for XBRL Reports:

## **xBRL-JSON** Makes XBRL data very easy to consume

Easy to define new, interoperable formats (SQL?) because the model is defined.





## **xBRL-CSV** Ideal for large volume, granular reports



- Originally a proof-of-concept for the OIM model
- Now a new and extremely powerful format it its own right
- Simplicity and compactness of CSV
- Rich metadata and validation of XBRL
- Good for tabular data
- Very good for granular data



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22	120,5	109	10,5	1,7	-08			
125		120	13,7	0,3	6.1			
120	143,6	107	15,1	0,7	-402			
45	439,8	103	16,3	1,8	40			
28	284,7	106	14,5	1,2	10			
_	340,5	119	14,3	0,4	83			
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How does it work?

- Not one-size-fits-all for every shape of XBRL report
- Uses JSON metadata to define a mapping from CSV tables to XBRL data
- Enables *very* efficient CSV tables

This defines 35 XBRL facts

```
loan_id,lei,original_loan_amount,loan_amount,interest_rate
1479,ABCD007543218DA6AF30,720000,643220,0.0342
1256, ABCD007543218DA6AF30, 524000, 926000, 0.0412
4565,ABCD007543218DA6AF30,975000,1157604,0.0489
1974, DCBA0UGDX9876VPHZ559, 175000, 43000, 0.0311
1975, DCBA0UGDX9876VPHZ559, 54000, 15000, 0.0545
3455, EFGH004VX676Y7299S96, 195000, 93000, 0.0321
1234, ABCD007543218DA6AF30, 975000, 1157604, 0.0489
```



#### xBRL-CSV efficiency

#### **Those same 35 facts in xBRL-XML**

?vml version="1.0" encoding="utf-8"?> --estracted from OIM /home/pdw/xbrl-conferences/20211118-MA/reports2/loan\_report.json--> vdrl nlns:xlink="http://www.w3.org/1999/xlink"> link:href="https://www.xbrl.org/taxonomy/sample-demo/v1/elts.xsd" xlink:type="simple"/> ontext id="c-01"> identifier scheme="http://standards.iso.org/iso/17442">FAKE0012345678901274</identifier csgments .odridi:typedHenber divension="g:BorrowerDetailsAvis"> .odridi:typedHenber (ki:LEIDonain>#BCD007542:LEIDonain> /vbridi:typedHenber> .odridi:typedHenber> ./vbridi:typedHenber> /vbridi:typedHenber> /vbridi:typedHenber> /vbridi:typedHenber> /vbridi:typedHenber> </period> unit id="u-01"> <measure>iso4217:EU
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#### **Typical reporting scenario**

- Regulator publishes:
  - XBRL Taxonomy
    - Datatypes
    - Labels (multi-language), definitions (multi-language), references
    - Formula validation rules
  - xBRL-CSV metadata file
    - Defines mapping from CSV tables to XBRL data
- Filer provides
  - CSV files
  - (packaged in a ZIP with a trivial JSON file)









### xBRL-CSV vs CSV

xBRL-CSV is backed by XBRL taxonomies giving:

- Data typing (string, monetary, LEI)
- Multi-dimensional model for analysis
- Concept and dimension definitions with multi-language labels
- References to authoritative definitions
- Formula validation
- Unit registry and validation (ISO4217 currencies, physical units, ESG units)
- Easy, lossless conversion to other formats (e.g. JSON)

A data collector can publish their complete reporting requirements using an open standard (XBRL Taxonomy + xBRL-CSV metadata) and start collecting





#### Current Status

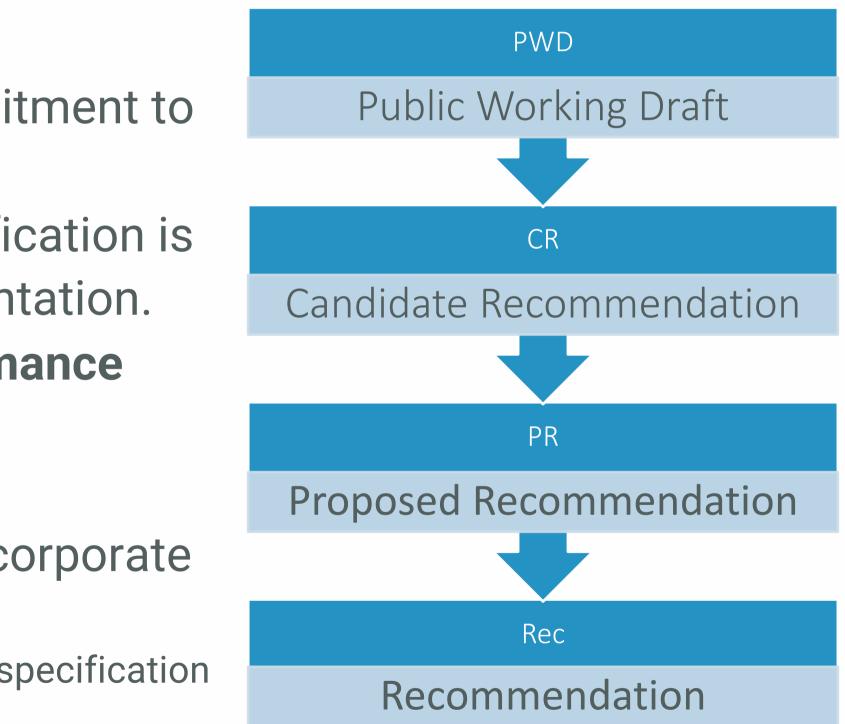
#### xBRL-CSV, xBRL-JSON and the XBRL Open Information Model (OIM) were approved as an **XBRL International Recommendation** on 13th October 2021.





## What does Recommendation status mean?

- Recommendation is the final maturity level in our standardisation process and carries a firm commitment to stability.
- **Recommendation** status indicates that the specification is now ready for widespread adoption and implementation.
- The specifications are accompanied by a conformance test suite, and we have at least two independent implementations that pass the suite.
- The specifications will now only be updated to incorporate errata corrections.
  - Such updates are only permitted to address defects in the specification (i.e. typos and ambiguous or unimplementable wording)





### What happens next?

- The finalised specifications move into maintenance mode, and the Working Group will work to expand the conformance suites and resolve any interoperability issues.
  XBRL International is making plans to expand its Software Certification programme to
- XBRL International is making plans to expand its S incorporate xBRL-CSV and xBRL-JSON.
- The OIM Working Group is now looking at developing a taxonomy model (to accompany the OIM Report Model).
- The Formula Working Group is working on applying XBRL Formula to xBRL-CSV.



## Applying Formula Rules to xBRL-CSV

**Current status** 

- xBRL-CSV is based on OIM, which is a subset of xBRL-XML (aka XBRL v2.1), so a conformant processor can convert to xBRL-XML for validation exactly as before. • The transformation to xBRL-XML is defined by the specification, and software exists
- that can do this transformation.
- In other words, **XBRL Formula validation is available today**, but transforming to XML largely negates the performance benefits of using xBRL-CSV.





### XBRL Formula Rules without XML

#### **OIM Safe Formula**

- The Formula Working Group is working to formalise an "OIM safe" subset of Formula.
- "OIM Safe" = "no operations that require an XML document to evaluate"
- This will not materially limit XBRL Formula capabilities:
  - Most well-written Formula Rules are already OIM-safe
  - Operations that currently require XML access will be handled by new functions





### **OIM Safe Formula**

Not a standing start

- Processors already exists that can operate in an XML-free mode, it's just not standardised functionality.
- Significant work has already been done to identify non-OIM Safe rules in published taxonomies and new functions to address this have already been published.
- The definition of "OIM Safe XPath" has been in a working group draft for a number of years



### Summary

- xBRL-CSV, xBRL-JSON and OIM have been finalised •
- Software supporting these specifications already exists
- XII Software Certification for these standards is coming soon
- Formula rules can run today, via XML conversion  $\bullet$
- Work on "OIM Safe Formula" a formalisation of something that already exists is well underway
- xBRL-CSV and xBRL-JSON are ready for use today



### OIM expands the XBRL toolbox

- **iXBRL** for open corporate reporting
- **xBRL-CSV** for closed tabular reporting including high volume granular reports
- **xBRL-JSON** for consuming and analysing XBRL data
- **XBRL v2.1** remains fully supported and maintained

All backed by the rich metadata and validation provided by XBRL Taxonomies





