

24th XBRL EUROPE DAY in Milan

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Hosted by



Scenarios for Integrating Inline XBRL in the OAM platform

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XBRL – EU market background

- Mature market
- Driven by EBA / EIOPA requirements
- Variety of tools/engines available for DPM taxonomies
 - Highly optimized for effectiveness and performance
 - Designed for deep integration with Regulator & Filer infrastructure
- Traditional licensing & delivery models
- Limited offer of generic Inline XBRL tools

ESMA ESEF – requirements' background

EBA/EIOPA

- Large scope of data
- Complex dictionary (DPM)
- Complex validation
- Large data challenges
- XBRL tools as a part of core data collection & processing platform
- Common patterns for large enterprise applications

ESMA ESEF

- Limited scope of data
- Simple dictionary (IFRS)
- Simple validations
- Extensibility challenges
- XBRL tools to be lightly integrated with data platform
- Variety of different technologies / platforms used

ESMA ESEF for Regulator / OAM

Common requirements

- Data management
 - Handling multiple taxonomies & taxonomy versions
 - Supporting Filers' extensions of taxonomy
- Validation
 - XBRL / Inline XBRL / Dimensions / Calculations / Formula assertions / ESMA FR
- Rendering
 - Interactive viewers of Inline XBRL documents (tags browser, etc.)
- Tagging
 - Interactive tools for Inline XBRL tagging

ESMA ESEF for Regulator / OAM

Common requirements

- Data export to other common formats
 - JSON, CSV, MS Excel
- Inline XBRL integration with existing data exchange platforms
 - Enhancement rather than Replacement
- Limited but still – data analytics scenarios for ESMA ESEF data

ESMA ESEF for Regulator / OAM

“Do nothing” integration scenario

- Functionality
 - Gather, store and publish Inline XBRL reports from the market, without any processing
 - **No XBRL functionality in the scope**
- Results
 - Data consumers may always invest in XBRL tools to understand the data



ESMA ESEF for Regulator / OAM

Minimalistic integration scenario

- Functionality
 - **Validate the data before publishing**
- Result
 - At least you are sure published reports are not corrupted (from syntax & automatic data validation perspectives)

Report

20	2.1 Land and buildings (self used)	2,810	2,841
20	2.2 Other tangible assets	1,666	1,625
14	3 AMOUNTS CEDED TO REINSURERS FROM INSURANCE PROVISIONS	3,933	4,894
40, 41, 42, 43	4 INVESTMENTS	448,172	447,448
11	4.1 Land and buildings (investment properties)	12,504	12,112
3	4.2 Investments in subsidiaries, associated companies and joint ventures	1,104	1,369
7	4.3 Held to maturity investments	12,105	1,894
6	4.4 Loans and receivables	44,170	43,100
9	4.5 Available for sale financial assets	313,833	289,399
10	4.6 Financial assets at fair value through profit or loss	35,194	94,385
	of which financial assets where the investment risk is borne by the policyholders and related to pension funds	78,317	74,965
21	5 RECEIVABLES	11,798	11,786
	5.1 Receivables arising out of direct insurance operations	7,155	6,497
	5.2 Receivables arising out of reinsurance operations	1,193	1,060
	5.3 Other receivables	3,471	4,149
22	6 OTHER ASSETS	15,414	15,142
	6.1 Non-current assets or disposal groups classified as held for sale	772	0
15	6.2 Deferred acquisition costs	2,083	2,000
	6.3 Deferred tax assets	2,477	2,652
	6.4 Tax receivables	2,974	3,115
	6.5 Other assets	7,108	7,375

Filing Rules	XBRL Calculation	Inline XBRL
Message		
		Severity Code
The calculation result '469171000000' (role='http://www.generali.com/role/BalanceSheet') is not equal to the specified value '469172000000' of the numeric item '{http://www.generali.com/xbrl/20161231}Investment3'. (test_default_target_attr.xml)		ERROR 12420
The calculation result '117890000000' (role='http://www.generali.com/role/BalanceSheet') is not equal to the specified value '117900000000' of the numeric item '{http://www.generali.com/xbrl/20161231}Receivable3'. (test_default_target_attr.xml)		ERROR 12420
The calculation result '86460000000' (role='http://www.generali.com/role/BalanceSheet') is not equal to the specified value '86450000000' of the numeric item '{http://xbrl.ifrs.org/taxonomy/2017-03-09/ifrs-full}IntangibleAssetsAndGoodwill'. (test_default_target_attr.xml)		ERROR 12420
The calculation result '447447000000' (role='http://www.generali.com/role/BalanceSheet') is not equal to the specified value '447448000000' of the numeric item '{http://www.generali.com/xbrl/20161231}Investment3'. (test_default_target_attr.xml)		ERROR 12420

ESMA ESEF for Regulator / OAM

Simple integration scenario with open data

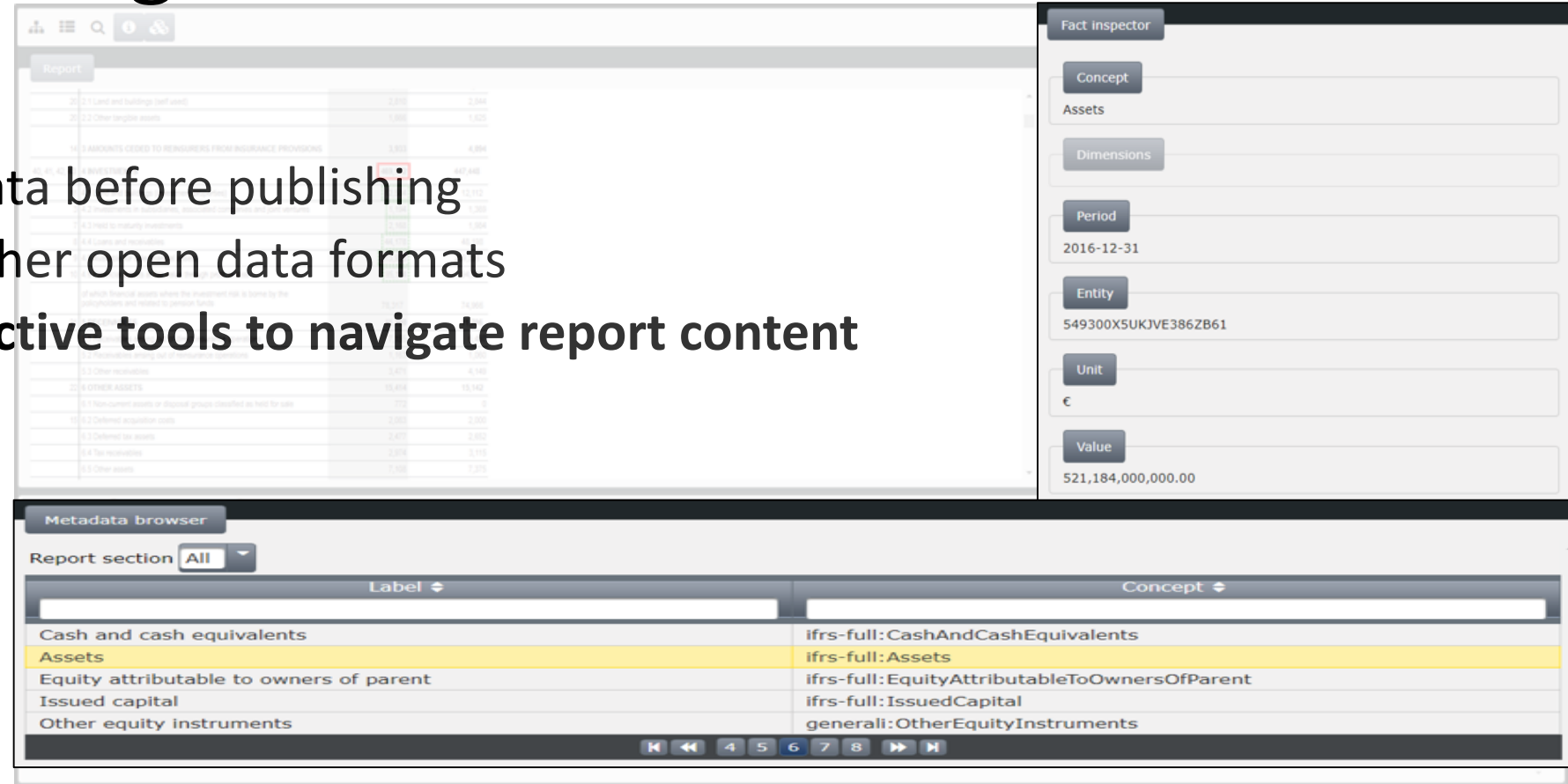
- Functionality
 - Validate the data before publishing
 - **Publish not only source documents (Inline XBRL) but also other formats**
 - Wasily digestible for data consumers
 - Use OIM-JSON output, if possible
- Result
 - ...
 - You truly support data openness principle

```
{
  "f923": {
    "value": "1234",
    "dimensions": {
      "concept": "tax:NumericConcept",
      "entity": "cid:123456789",
      "period": "2015-01-01T00:00:00/2016-01-01T00:00:00",
      "unit": "iso4217:GBP",
      "tax:RegionDimension": "tax:Europe"
    }
  }
}
```


ESMA ESEF for Regulator / OAM

Advanced integration scenario

- Functionality
 - Validate the data before publishing
 - Publish also other open data formats
 - **Provide interactive tools to navigate report content**
- Result
 - ...



The screenshot displays the ESMA ESEF interface with three main components:

- Report Table:** A table showing financial data with columns for various assets and liabilities. The table is partially obscured by the other panels.
- Fact Inspector Panel:** Located on the right, it contains fields for:
 - Concept:** Assets
 - Dimensions:**
 - Period:** 2016-12-31
 - Entity:** 549300XSUKJVE386ZB61
 - Unit:** €
 - Value:** 521,184,000,000.00
- Metadata browser Panel:** Located at the bottom, it shows a table with columns for Label and Concept. The table lists various financial items and their corresponding IFRS and Generali codes.

Label	Concept
Cash and cash equivalents	ifrs-full: CashAndCashEquivalents
Assets	ifrs-full: Assets
Equity attributable to owners of parent	ifrs-full: EquityAttributableToOwnersOfParent
Issued capital	ifrs-full: IssuedCapital
Other equity instruments	generali: OtherEquityInstruments

ESMA ESEF for Regulator / OAM

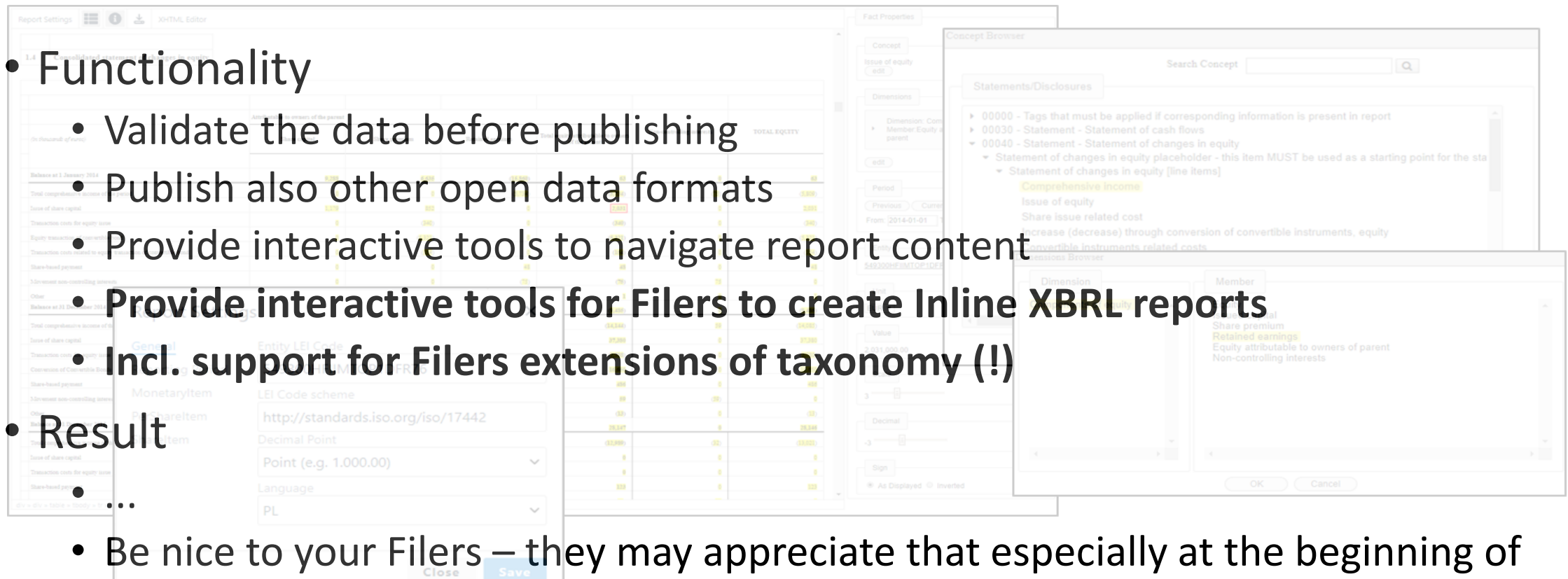
Complex integration scenario

- **Functionality**

- Validate the data before publishing
- Publish also other open data formats
- Provide interactive tools to navigate report content
- **Provide interactive tools for Filers to create Inline XBRL reports**
- **Incl. support for Filers extensions of taxonomy (!)**

- **Result**

- ...
- Be nice to your Filers – they may appreciate that especially at the beginning of the obligatory reporting project



ESMA ESEF for Regulator / OAM

Full integration scenario

- Functionality
 - Validate the data before publishing
 - Publish also other open data formats
 - Provide interactive tools to navigate and edit report content
 - Provide interactive tools for Filers to create Inline XBRL reports
 - **Integrate Inline XBRL data with data analytics platform**
- Result
 - ...
 - Support internal / external data analysis scenarios

ESMA ESEF for Regulator / OAM Design Principles

- Technology independent solution
- Light-weight integration capabilities
- Modular architecture
- Simplified maintenance procedures
 - Limited need of load balancing, disaster recovery, etc.
- Open data formats to be used
- (Optional) Support for Filers' usage scenarios – Inline XBRL tagging

ESMA ESEF for Regulator / OAM

Target solution

- Technology & Architecture
 - **RESTful API (web service)**
 - Flexibility to implement only selected functionalities
 - No tight binding with specific vendor / technology
- Delivery model
 - On-premise or cloud deployment model
 - Both easily available for web service
- Business model
 - Subscription and SaaS models available

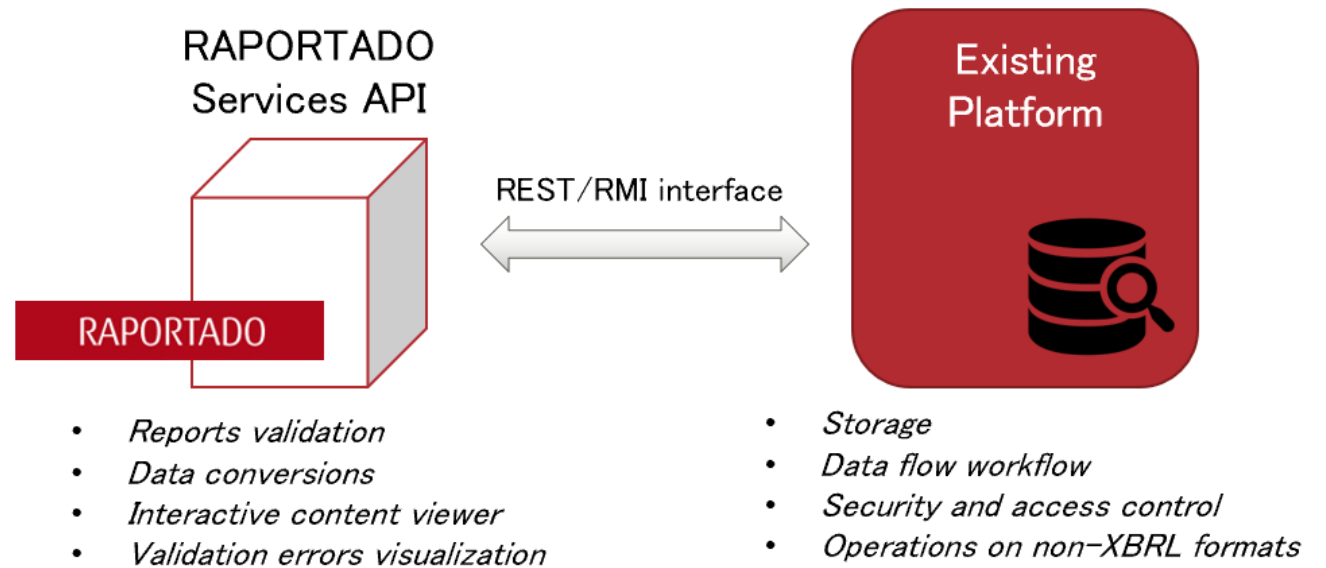


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REST API Concept

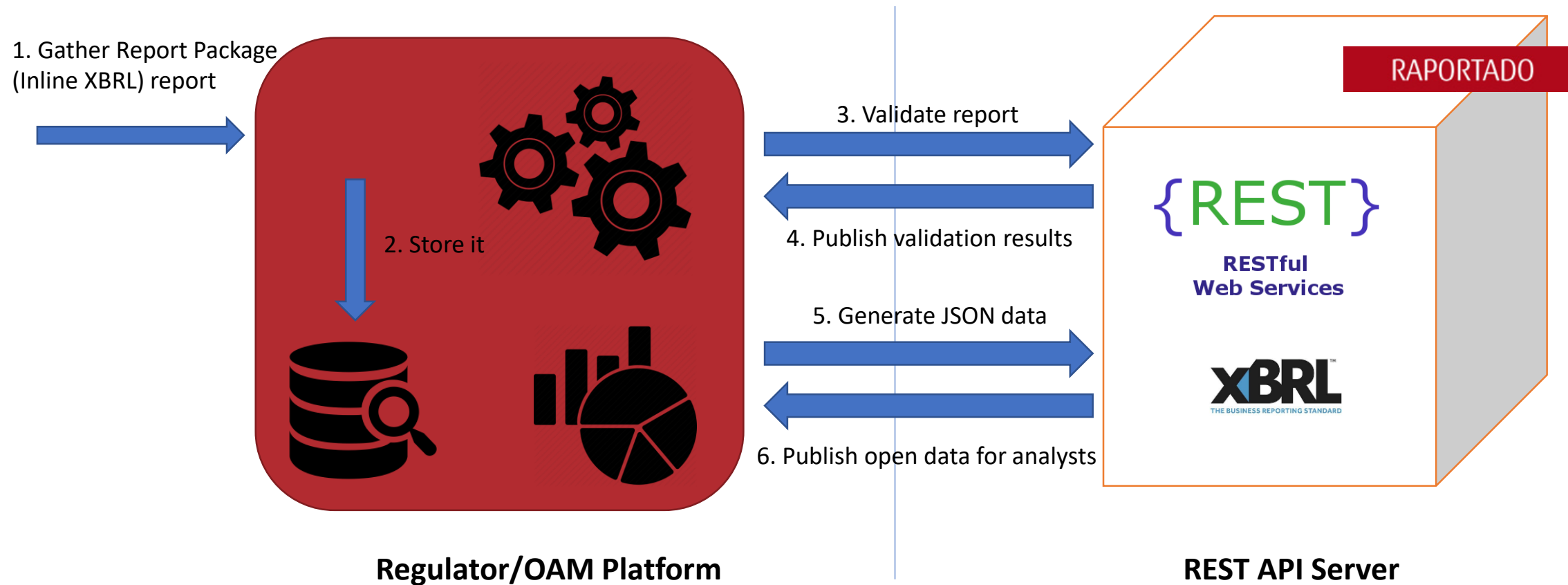
- In-memory processing
- Taxonomy agnostic impl.
- Scalability

Method Type	URL	Description
ESMAESEF Rest Controller		
GET	/esma-esef/instances	Get ESMA-ESEF Report List
POST	/esma-esef/instances	Insert ESMA-ESEF Report
DELETE	/esma-esef/instances/{id}	Delete ESMA-ESEF Report
GET	/esma-esef/instances/{id}	Get ESMA-ESEF Report
GET	/esma-esef/instances/{id}/export-to-json	Export ESMA-ESEF Report to JSON
GET	/esma-esef/instances/{id}/extract-xbrl	Extract XBRL
GET	/esma-esef/instances/{id}/original-file	Get Original File
GET	/esma-esef/instances/{id}/validation-results	Validate XBRL
GET	/esma-esef/instances/{id}/details	Get details
GET	/esma-esef/instances/{id}/facts	Get facts
GET	/esma-esef/instances/{id}/javascript-viewer	Get InlineXBRL viewer
Inline XBRL Rest Controller		
GET	/inline-xbrl/instances	Get Inline XBRL Report List
POST	/inline-xbrl/instances	Insert Inline XBRL Report
DELETE	/inline-xbrl/instances/{id}	Delete Inline XBRL Report
GET	/inline-xbrl/instances/{id}	Get Inline XBRL Report
GET	/inline-xbrl/instances/{id}/export-to-json	Export Inline XBRL Report to JSON
GET	/inline-xbrl/instances/{id}/extract-xbrl	Extract XBRL
GET	/inline-xbrl/instances/{id}/original-file	Get Original File
GET	/inline-xbrl/instances/{id}/validation-results	Validate XBRL
GET	/inline-xbrl/instances/{id}/details	Get details
GET	/inline-xbrl/instances/{id}/facts	Get facts
GET	/inline-xbrl/instances/{id}/javascript-viewer	Get InlineXBRL viewer



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REST API – Sample usage scenario



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<Future of Electronic Reporting/>**

<https://www.linkedin.com/groups/8664271/>

For more information please contact

EMEA Center of Excellence for Fujitsu XBRL Solutions



FQS POLAND LIMITED

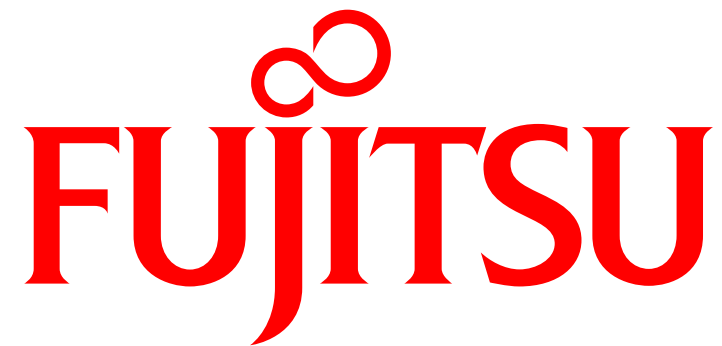
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