



2016 | the future of business reporting

**SINGAPORE**  
8-10 NOVEMBER  
**2016**

# Robotic Assurance

## Powered by XBRL

SPEAKER:

**Paul Snijders**

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**Semansys Technologies**  
XBRL Europe  
XBRL Netherlands



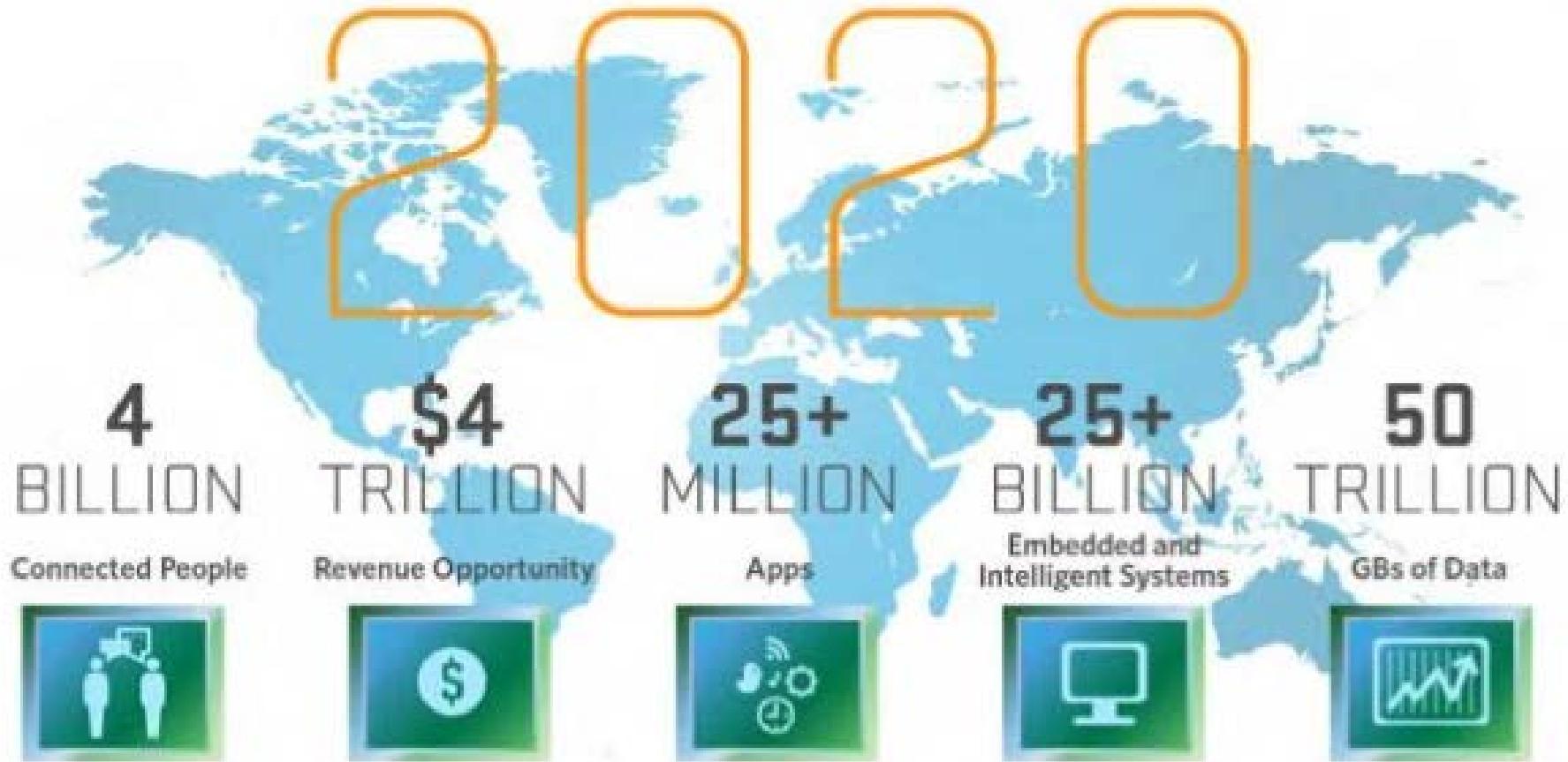
Title

48	XBRL	+							
49	Financial Reporting	+							
43	Business Intelligence	+							
21	Strategy	+							
20	Consolidation	+							
16	Management	+							
14	Finance	+							
14	IFRS	+							
11	Management Consulting	+							
9	Analysis	+							
3	Business Process	3	Business Analysis	3	MIS	3	Data Warehousing		
3	Auditing	2	Business Strategy	2	Software Development	2	Taxonomy		
2	Accounting	2	Government	2	Banking	2	Financial Analysis	1	XML
1	Program Management	1	Supply Chain	See 13+ >					

# ONLINE IN 60 SECONDS



# Explosion re: Internet of Things

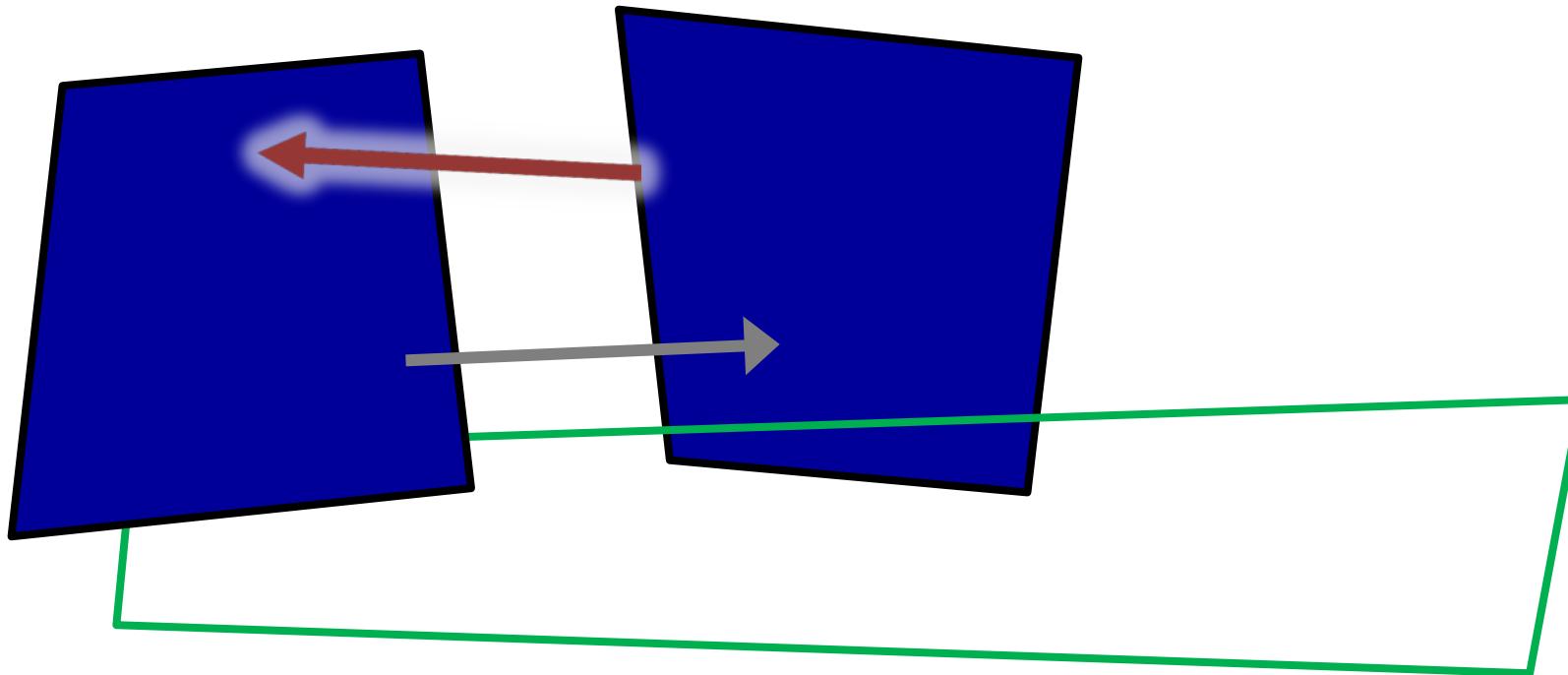


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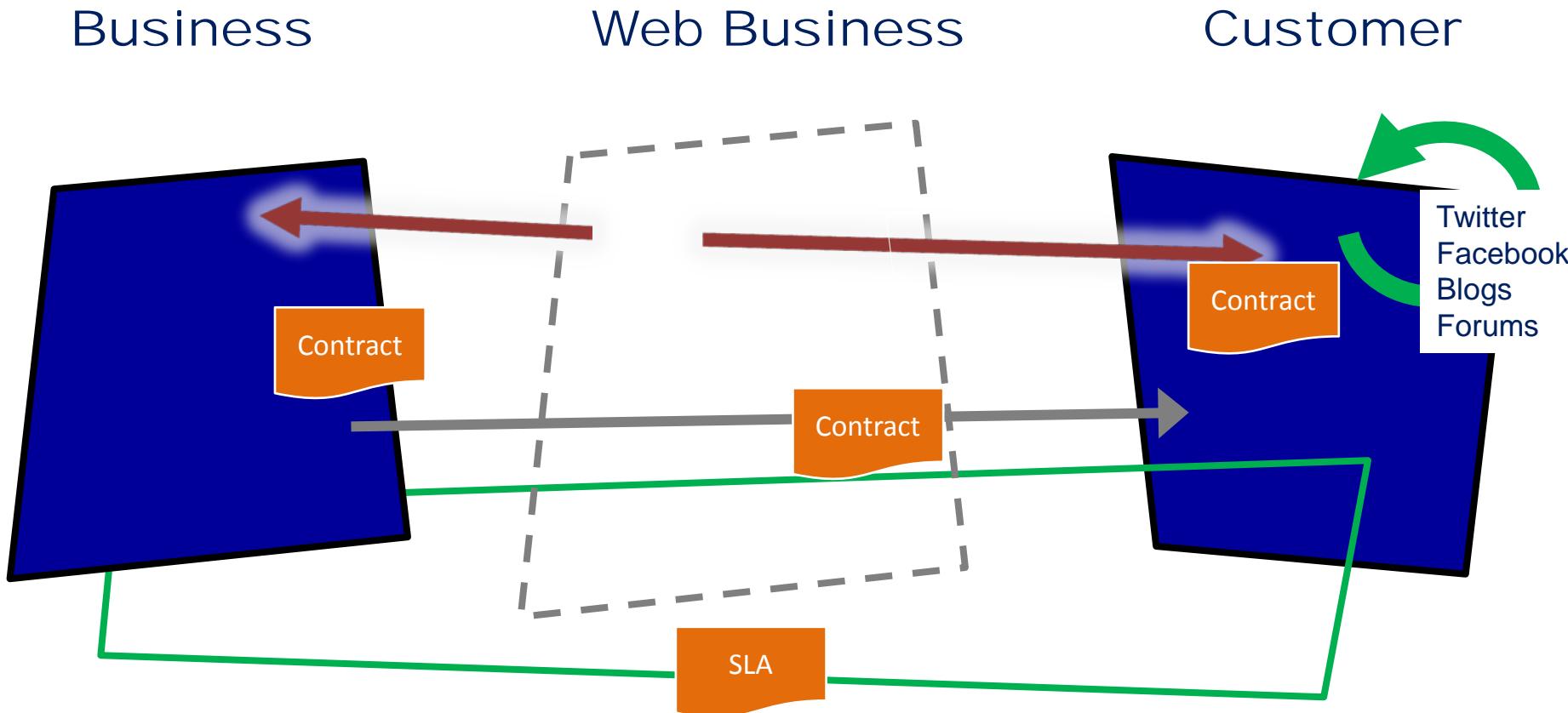
It was (pre-internet)

Business

Customer



It is



It is

Business

Web Business

Customer

The organisation of the future  
... is a box of contracts

The Third Wave  
Alvin Toffler 1980

CLOUD

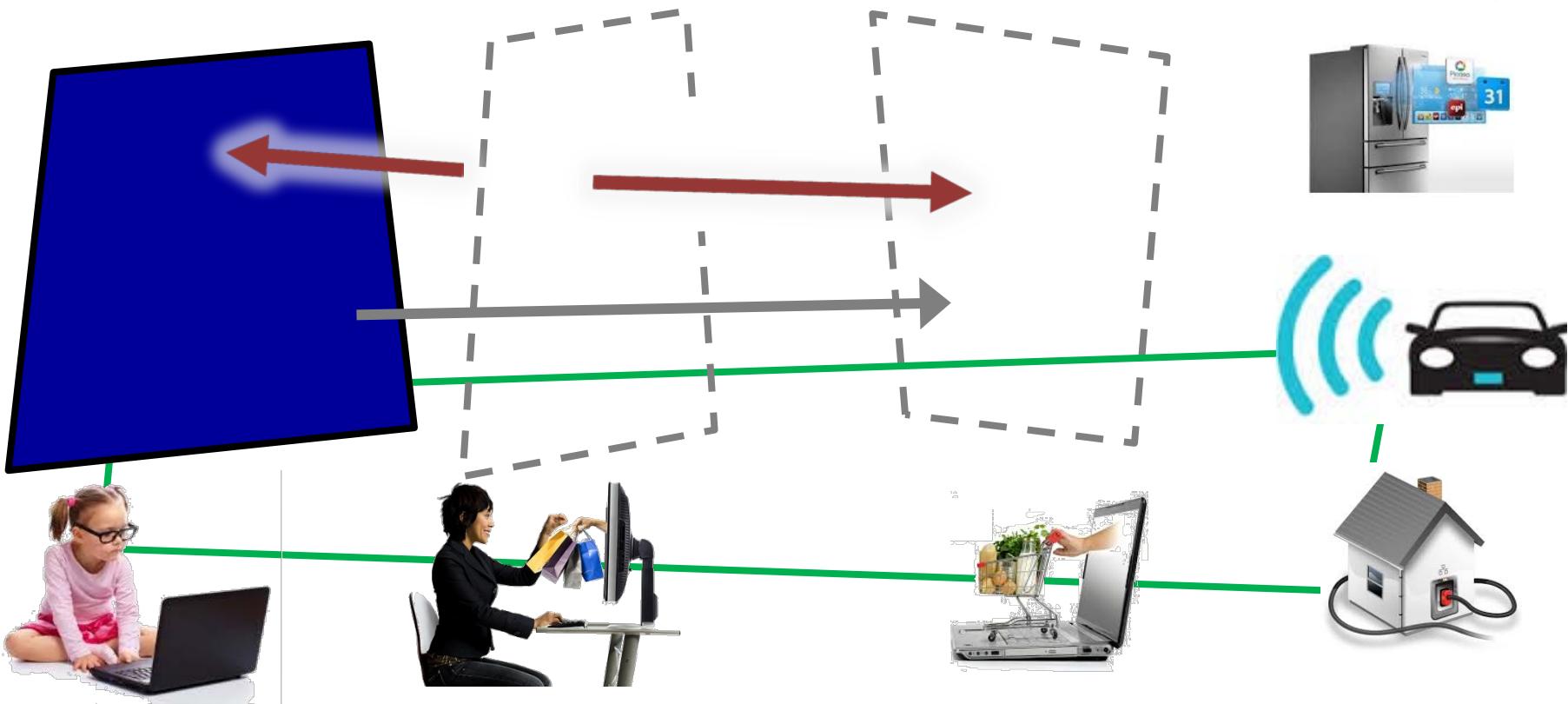
# How it will be: our 'things' will do the business

Business

Web Business

Customer

Internet  
of things



# Will traditional accounting survive?



**Chartered  
Accountants**



**Semansys®**

XBRL 2015  
HOSTED BY XBRL DENMARK

# Current process will cease to exist



# Important concepts expected to spread



## Continuous Monitoring



## Continuous Internal Auditing

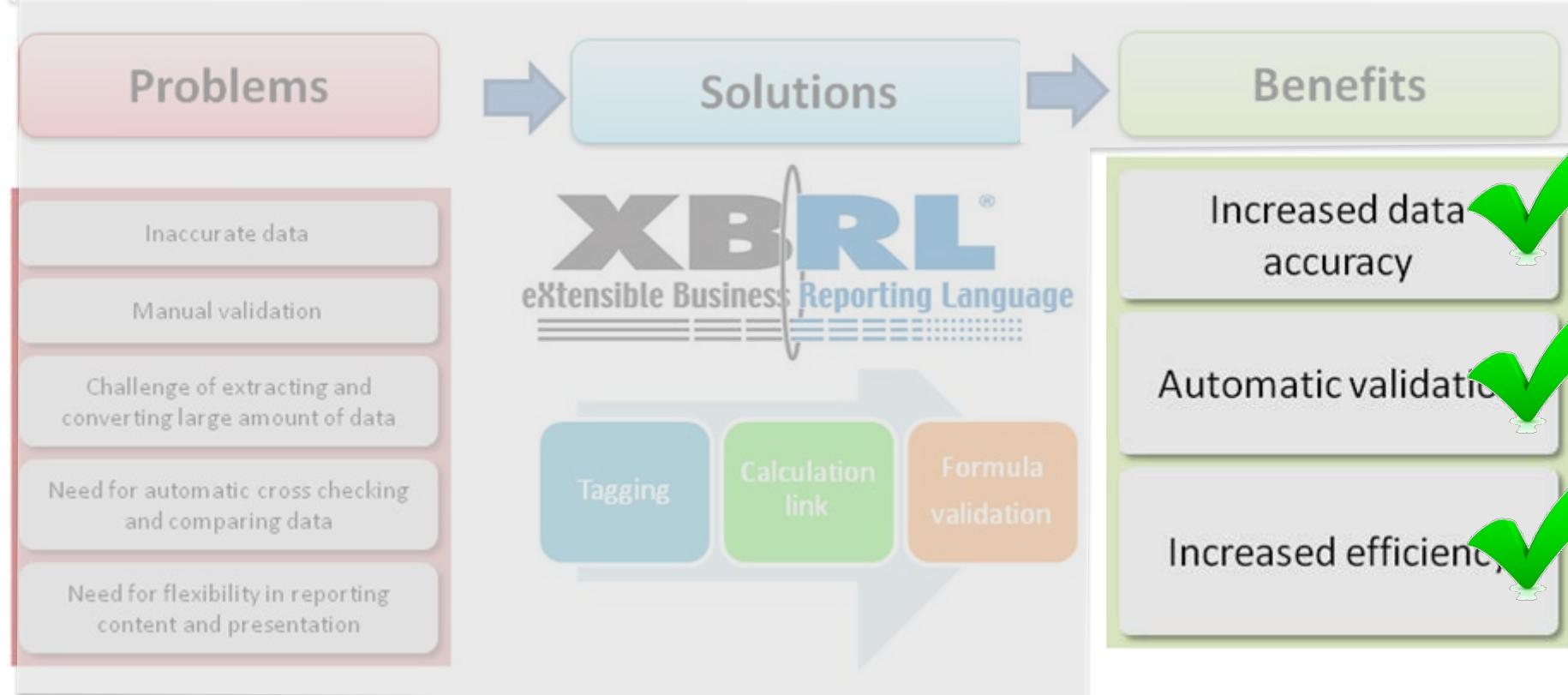


## Continuous Data level Assurance

*Prof. Hans Verkrijssse*



# XBRL comes to the rescue

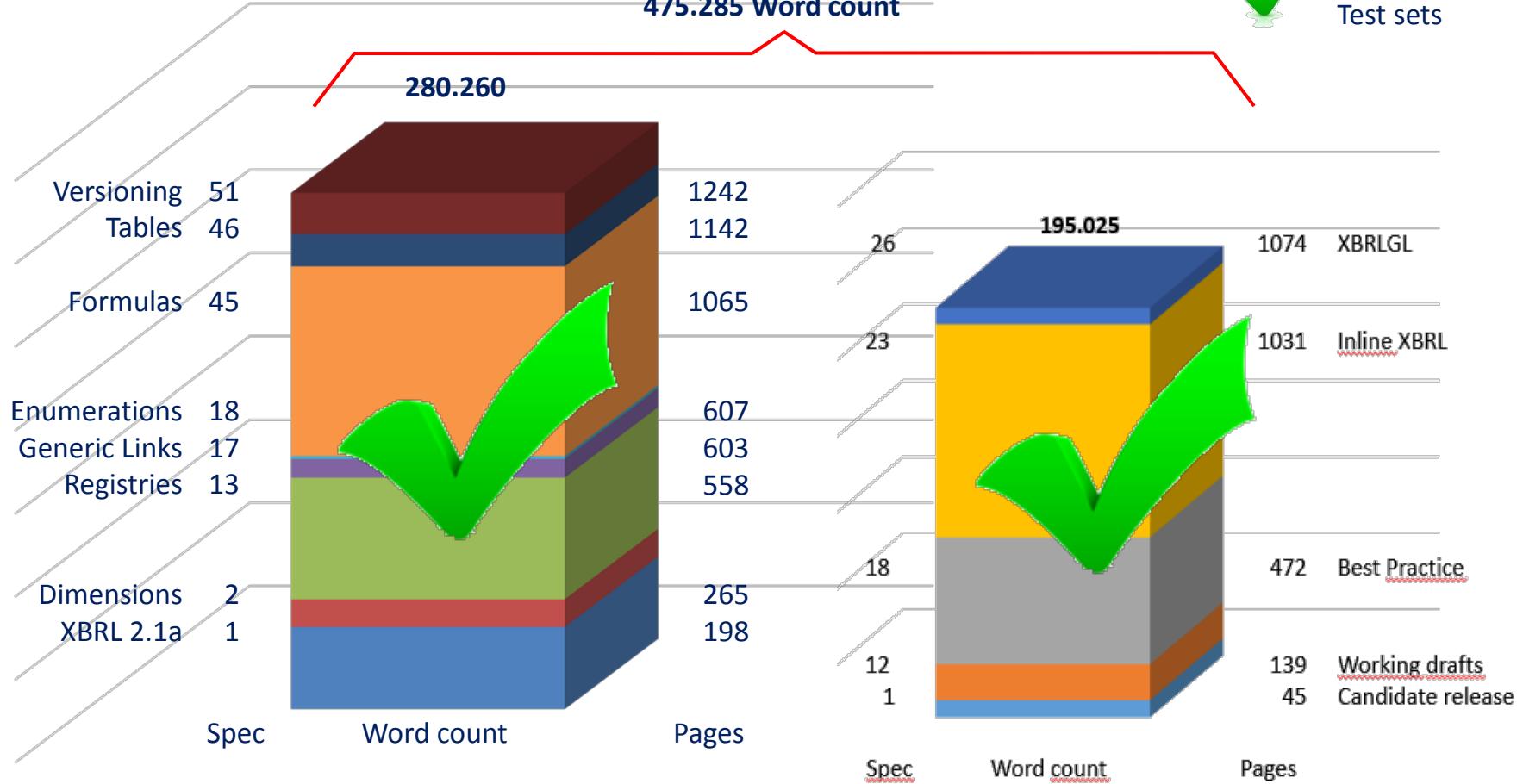


# XBRL: a powerfull family of standards

77 Specifications  
2.316 Pages  
475.285 Word count

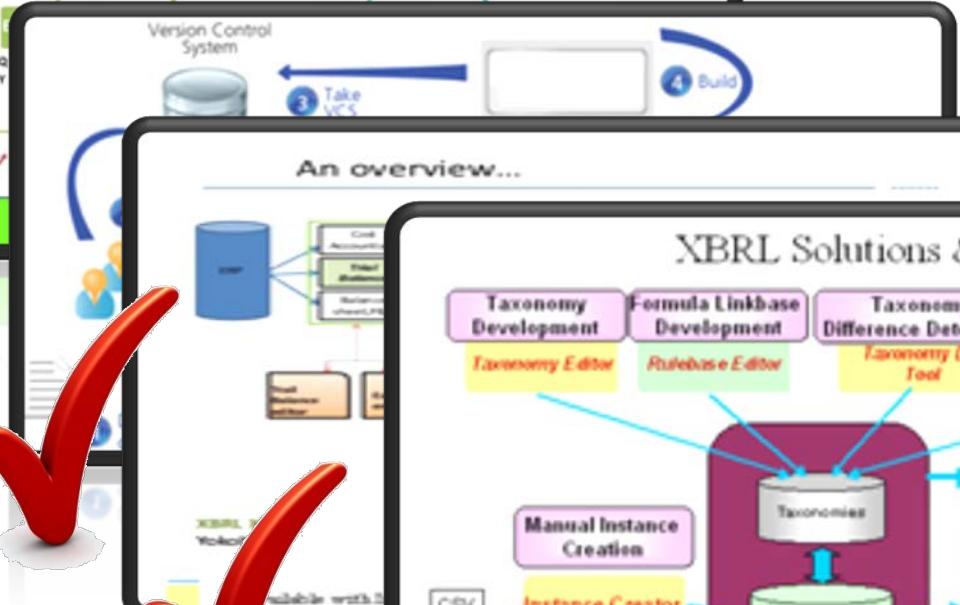


More than 2.000  
Conformance suite  
Test sets



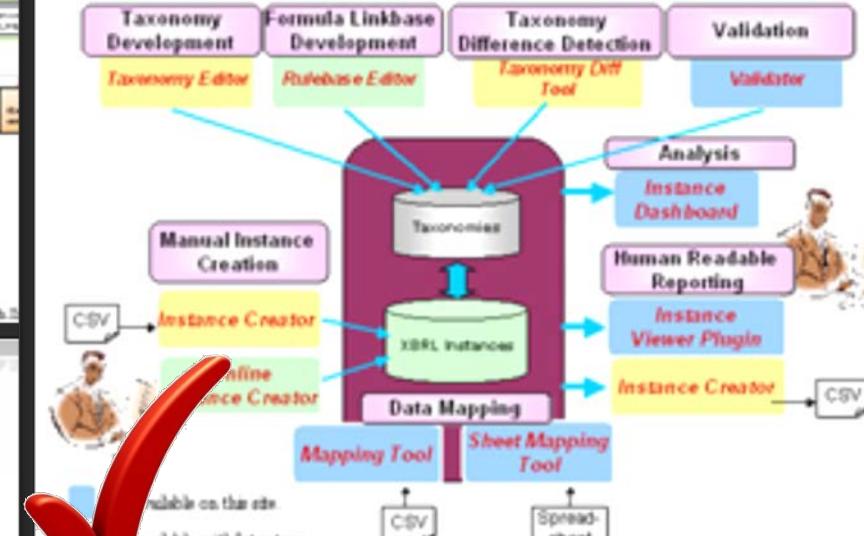
# Many implementations invents their own model

## XBRL Business Process Orchestration

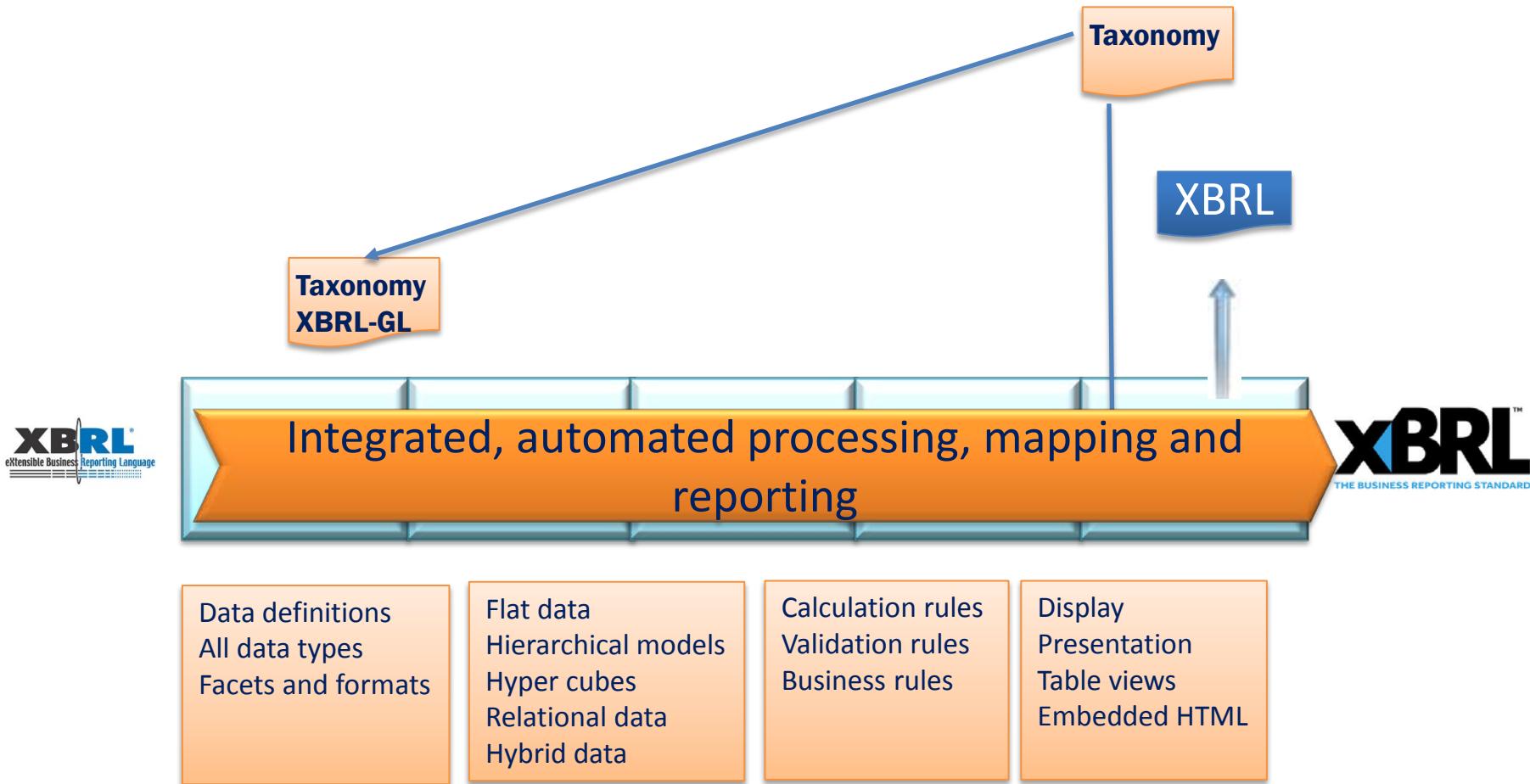


All with their own risks.

## XBRL Solutions & Tools



# XBRL Based processes



# How to audit Electronic statements

## How to audit this?

- 1 statement can be over

100.000 lines of XML!

- Basel II/Solvency

XBRL instances can be  
over 100.000 data cells

100Mb tot 1-3Gb

(meer dan 300.000 contexts)

You automate !



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# XBRL assurance stack

Rendering and layout

True and fair view

Business Rules

XBRL Formula Processing

Validation Definitions

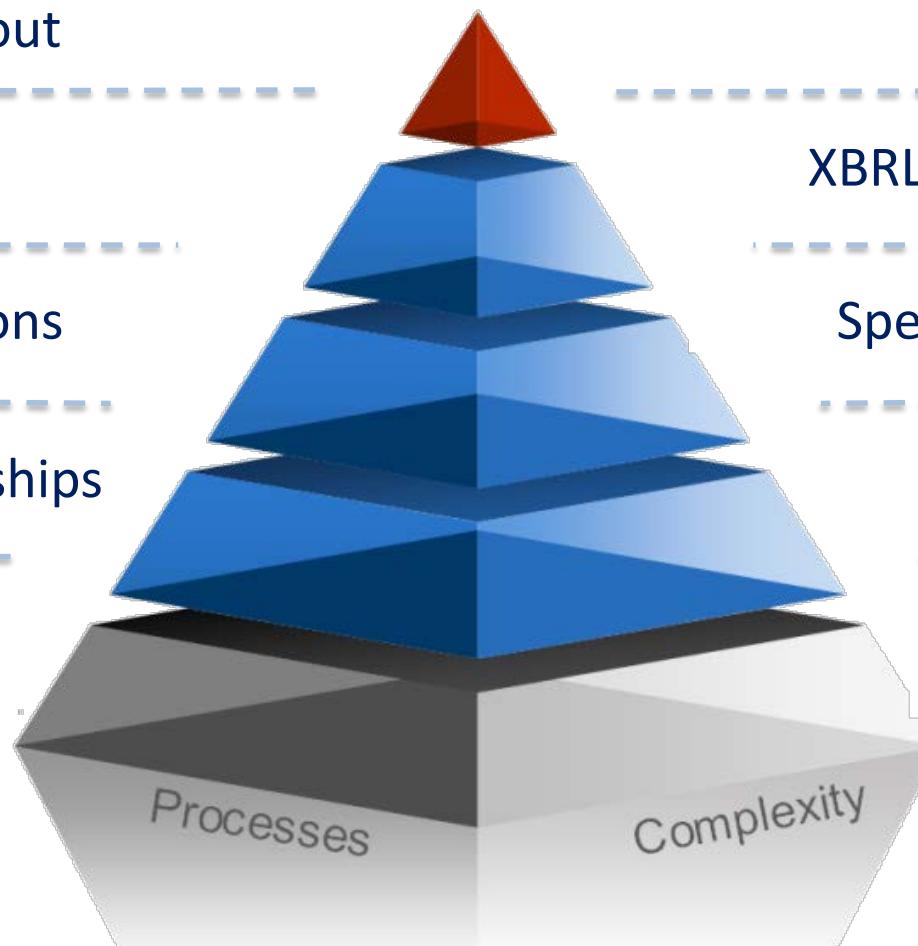
Specific XBRL Validation

Semantic Relationships

Structure Validation

Data Definitions

Data level Validation



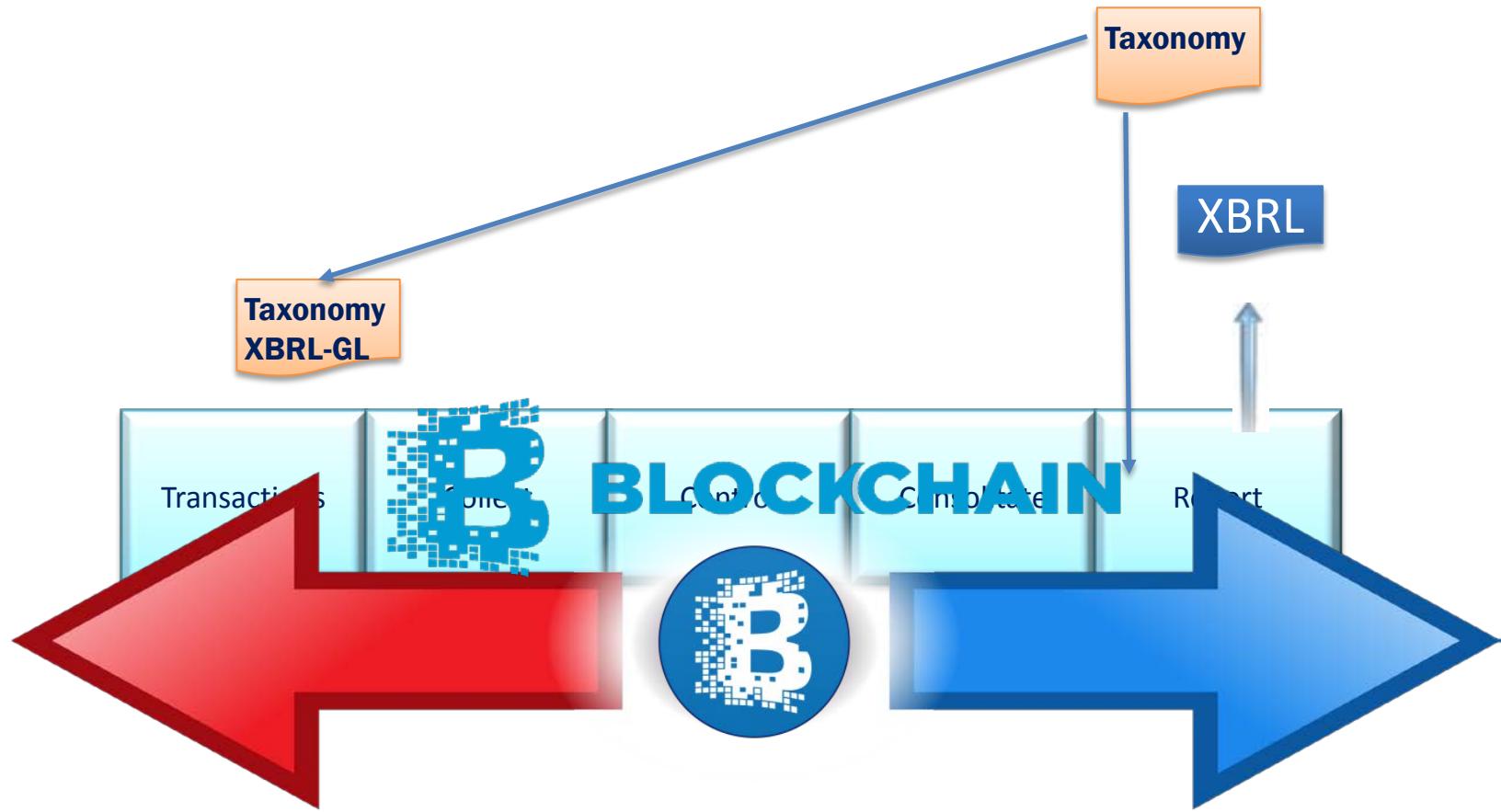
# XBRL core technology for a bright future

XBRL contains all concepts, architecture and technology for automated data level Assurance.

- ✚ Data definitions
- ✚ Any data model
- ✚ Data level validation
- ✚ Business rule processing
- ✚ Rendering layouts
- ✚ Automated processes
- ✚ World wide adoption



# XBRL Based processes and Blockchain

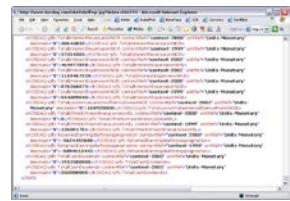
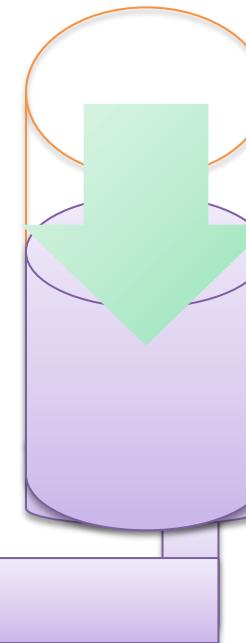
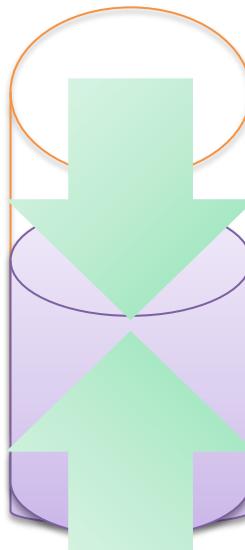
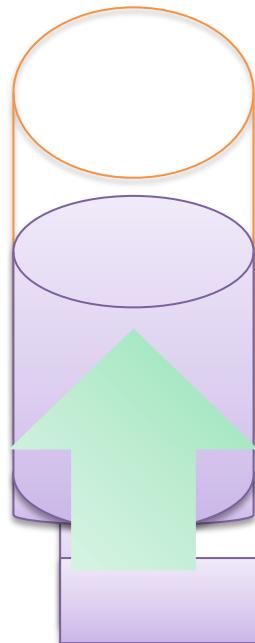


# Communicating Vessels of Assurance

Data

EDP  
Auditor

CPA



Data level  
assurance

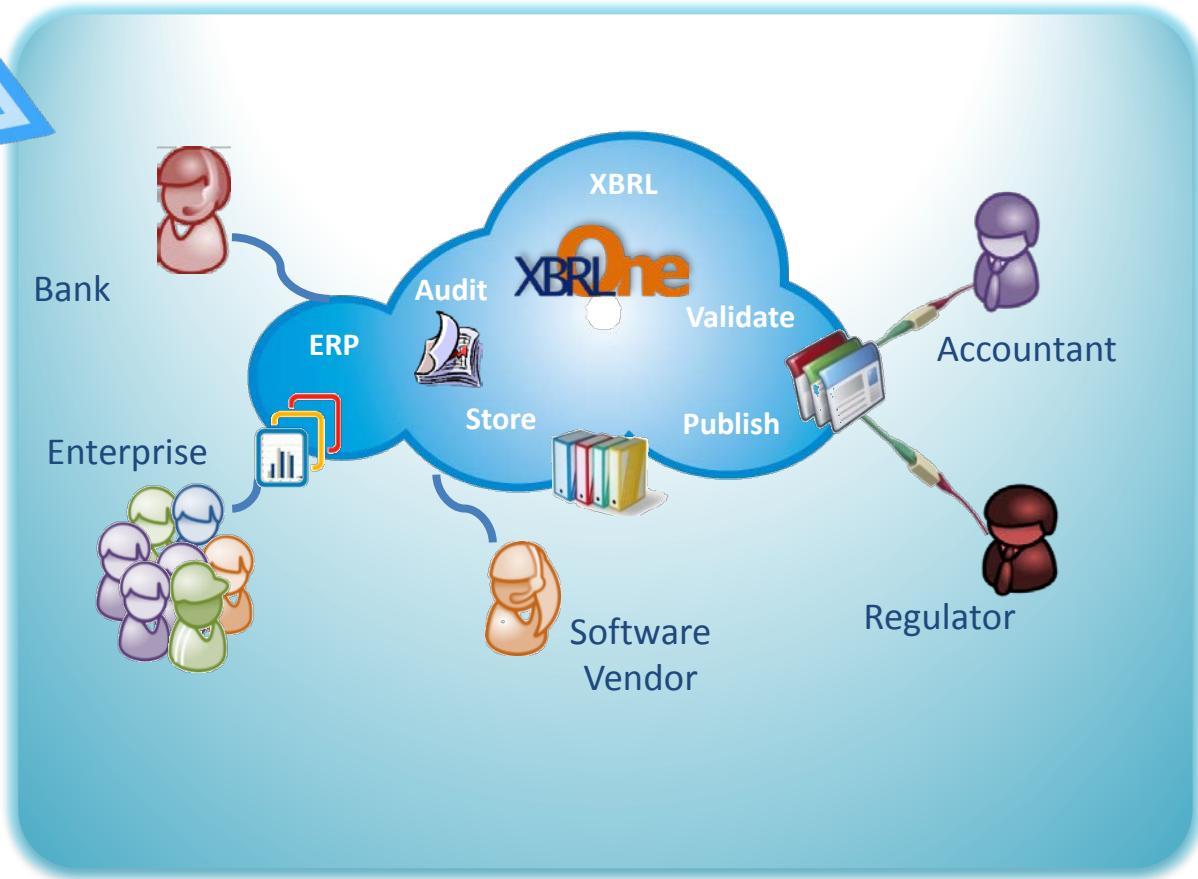
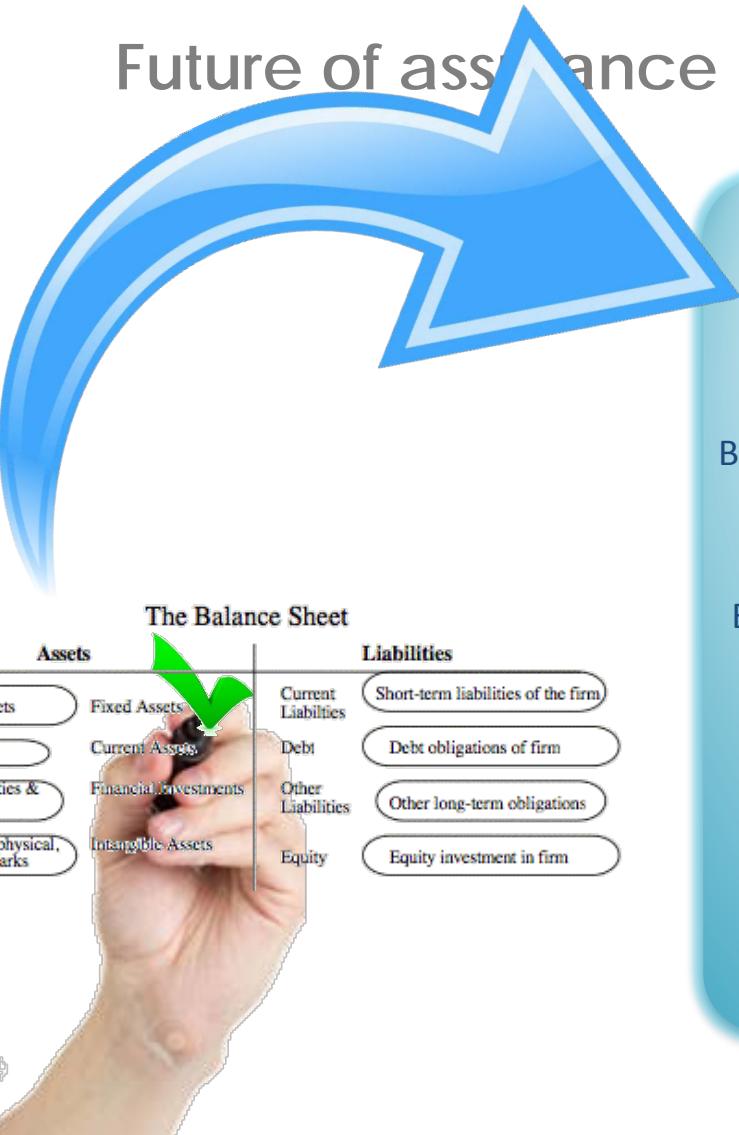


Document  
Centric

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# Future of assurance in de cloud



# Wait for the call center accountant



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*Thank you*

*Paul Snijders.*

[www.semansys.com](http://www.semansys.com)

[paul.snijders@semansys.com](mailto:paul.snijders@semansys.com)

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